



School of Biosciences and Veterinary Medicine University of Camerino, Italy

Self-Evaluation Report 2021





School of Biosciences and Veterinary Medicine University of Camerino, Italy

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Contributors:

Stefano Rea	Full Professor of Inspection of Food of Animal Origin Coordinator of the School Internal Board for the EAEVE Evaluation Process
Fulvio Laus	Associate Professor of Veterinary Internal Medicine Vice-Coordinator of the School Internal Board for the EAEVE Evaluation Process
Giacomo Rossi	Full Professor of Veterinary Pathology
Gian Enrico Magi	Associate Professor of Veterinary Pathology
Angela Palumbo Piccionello	Associate Professor of Veterinary Surgery
Alessandra Roncarati	Associate Professor of Animal Production
Silvia Vincenzetti	Associate Professor of Clinical Biochemistry and Molecular Biology
Alberto Felici	Assistant Professor of Biochemistry
Alessandro Fruganti	Assistant Professor of Veterinary Internal Medicine
Silvia Prezioso	Assistant Professor of Veterinary Infectious Diseases
Alessandra Gavazza	Senior Researcher (RTDB) in Veterinary Internal Medicine
Subeide Mari	Laboratory technician
Livio Galosi	DVM, Ph.D. student
Maddalena Angelini	Student
Elisabetta Francucci	Student
Christoforos Kostarellos	Student
Ilaria Rosorani	Student

FOREWORD

The present Self -Evaluation Report (SER) has been written according to the guidelines given in the 2019 version of the ESEVT Standard Operating Procedures (SOP). The SER is the result of a considerable effort of the entire School of Biosciences and Veterinary Medicine - branch of Veterinary Medicine (SBVM-bVM) of the University of Camerino, under the coordination of the School's Internal Board for the preparations for the ESEVT visitation of May 2021, composed of Prof. Stefano Rea (Coordinator), Prof. Fulvio Laus (Vice-Coordinator), Ms. Maddalena Angelini (Student), Dr. Alberto Felici, Ms. Elisabetta Francucci (Student), Dr. Alessandro Fruganti, Mr. Livio Galosi (DVM, Ph.D. Student), Dr. Alessandra Gavazza, Mr. Christoforos Kostarellos (Student), Prof. Gian Enrico Magi, Mrs. Subeide Mari (Technical Staff), Prof. Angela Palumbo Piccionello, Dr. Silvia Preziuso, Prof. Alessandra Roncarati, Ms. Ilaria Rosorani (Student), Prof. Giacomo Rossi, Prof. Silvia Vincenzetti. The members of the Board would have not been able to complete their job without the help of the School and the University. All members of the teaching and support staff, and all the students, acted as one team providing comments, data, analyses, suggestions, remarks, criticisms. The SER has been a synchronous effort of all those who are directly or indirectly involved with the SBVM-bVM of the University of Camerino.

The starting point of the present document and the preparations for the ESEVT visitation of May 2021 was the Final Report, written by the Visiting Experts at the end of the second EAEVE visitation to the School of Veterinary Medical Sciences, held in 2011, and their relevant findings, remarks, and suggestions. Although it resulted in full approval, the 2011 Final Report allowed the Internal Board to reveal the most significant weaknesses, thereby improving the facilities and the organisation of the SBVM-bVM to try to fulfil the new minimum ESEVT requirements for accreditation.

All chapters of the present SER have been reviewed several times by the members of the Internal Board before producing the final version that has been shared with all the teaching staff, support staff, and student representatives. An external review of the entire document has been carried out by Prof. Matteo Cerquetella, Dr. Alessandro Troisi and Dr. Elsa Murgia, who contributed to the final draft with their valuable suggestions. The final version has been evaluated and revised by the Director of the SBVM Prof. Guido Favia, by the Vice-Director of the SBVM and Liaison Officer Prof. Stefano Rea, and by the Council of the SBVM, which approved the document in the session n. 78 of 3 March 2021. As described in the text, the present SER offers an overview of the Degree Course in Veterinary Medicine, and of the SBVM where necessary, updated at the end of October 2020 (the end of the AY 2019/20), as regards the data. Where possible, data concerning the end of the solar year (Nov-Dec) 2020, or the AY 2020/21, are given. Finally, it must be considered that, according to the normal calendar, the end of the AY 2019/20 should have fallen in March 2021 with the last graduation session, but this term has been extended by the Italian Ministry of University and Research with an extraordinary session to be held in June 2021 due to the pandemic emergency.

The help of the students Livio Galosi (DVM, Ph.D. student), Ms. Maddalena Angelini, Ms. Elisabetta Francucci, Mr. Christoforos Kostarellos, and Ms. Ilaria Rosorani, is also gratefully acknowledged: their active participation and contribution in analysing and discussing teaching and organisational issues of the SBVM have been essential for finalising the present SER, and also for preparations for the 2021 EAEVE visitation.

Heartfelt thanks to Dr. Roberta Stocchi who arranged the layout of the SER and relevant Annexes.

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INTRODUCTION

The University of Camerino (UNICAM) has its headquarters in the town of Camerino, where the main part of the facilities is located. Camerino is a small town located in the Marche Region in Central Italy (Figure 1).

The University of Camerino as “Centre for Higher Studies” dates back from half of the 13th century, even though no detailed documents are available due to the destruction of the town and its archives in 1259 by the king of Sicily, Manfredi di Svevia. The famous ancient man of letters Cino da Pistoia recorded the presence of several schools of law in the Marca (hence the name of Marche Region) of Camerino in the spring of 1321.

The School of Veterinary Medicine (VM) of the University of Camerino was founded in the Papal States under the pontificate of Leo XII, as a result of the issuing of the papal bulls “*Quod Divina Sapientia*” in 1824, and “*Ordinationes Sacrae Congregationis Studiorum*” on 18 August 1826, which aimed at unifying the State regulations. Initially, the veterinary studies were established within the Faculty of Human Medicine, and the curriculum was defined as School of Low Veterinary Medicine, being organised as a second-class School.



Figure 1. Geographical position of Matelica and Camerino within the Marche Region.

After the unification of Italy, the veterinary curricula were restructured according to a new State Law. The so-called “Regulation Mamiani” of 8 December 1860 recognised only the veterinary curricula of the Universities of Turin, Milan, and Naples as Higher Schools of Veterinary Medicine (according to the Royal Decree of 24 September 1861). All the other veterinary curricula (including that of UNICAM) were defined as “secondary schools”. The Veterinary School of Camerino kept such a denomination until 1882, when it was changed into Higher School of Veterinary Medicine (although only the first two years, of course, were implemented), and aggregated to the so-called “free” University of Camerino. The status of “free” University provided that the institution was not supported by State funds, and the municipality was obliged to integrate the real estate tax due to the State. The Royal Decree of 29 January 1891 defined a common regulation for all Veterinary Schools of the Kingdom of Italy, excluding Perugia and Camerino, which belonged to “free” Universities. In 1928, the degree course in Veterinary Medicine of UNICAM became a complete programme (all

four years were implemented). The Royal Decree of 31 August 1933 set a common curriculum for all the Italian Schools of Veterinary Medicine, and changed them into Faculties of Veterinary Medicine aggregated to the universities (in this case, to the University of Camerino) from 1934. The Faculty of Veterinary Medicine of UNICAM was suppressed in 1958 due to the nationalisation of universities. Thirty years later, the Faculty of Veterinary Medicine was established again by law Decree No. 168 of 9 May 1989 within the four-year development plan of UNICAM for 1986-1990. Shortly thereafter, it was decided that the Faculty should be moved to Matelica, a small town 15 km north of Camerino (Figure 1), where it is now located.

The establishment was visited by EAEVE in 2000 for the first time, and it was not approved. A new visitation was held in 2011, after which it was fully approved.

Main features of the establishment

In recent years, the Faculty of Veterinary Medicine changed into the School of Veterinary Medical Sciences in 2009 and, finally, in 2013 it merged with the School of Biosciences and Biotechnologies to establish the School of Biosciences and Veterinary Medicine (SBVM). The School consists of three branches located in Camerino (branch of Biosciences - SBVM-bB), in San Benedetto del Tronto (Teaching and Research Unit - URDIS, in the province of Ascoli Piceno), and in Matelica (branch of Veterinary Medicine - SBVM-bVM). This is a very small Veterinary Education Establishment (VEE), probably the smallest in Europe, as stated by the Visiting Team during the visitation of 2011. But despite this, the SBVM-bVM offers different undergraduate and postgraduate courses, as well as continuing education initiatives, and is a specific and unique educational institution within the Marche Region (see Standard 10).

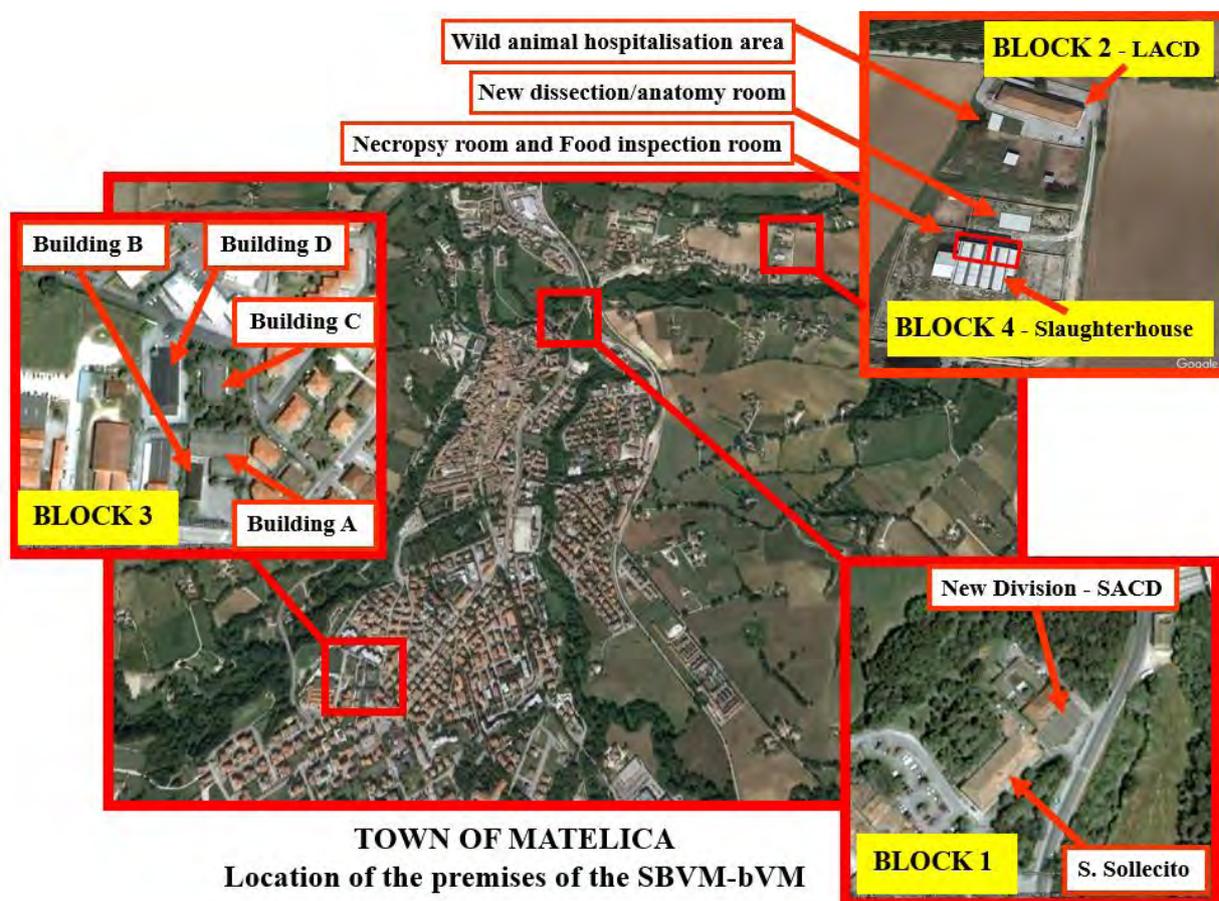


Figure 2. Aerial view of the location of the premises of the SBVM-bVM in the Matelica area.

As shown in Figure 2, and described in more detail in Standard 4, the SBVM-bVM consists of four blocks located in different parts of the town of Matelica, but not far from each other: Block 1 includes the historical main building of the establishment (named San Sollecito) and the Small Animal Clinical Division (SACD); Block 2 is the Large Animal Clinical Division (LACD); Block 4 is the new slaughterhouse with annexed Necropsy Room, Food Inspection Room, and new Dissection Room, respectively; Block 3 is the Teaching Block, consisting of Library, most of the lecture halls, main computer room, microscope room, anatomical collection, cafeteria, etc.

Brief summary of the main developments since the last visitation

The VEE of UNICAM was fully approved during the EAEVE visitation of 2011. The outcomes released by ECOVE at that time highlighted one minor deficiency, represented by the low number of teaching staff, and several recommendations and suggestions referred to different standards: to overcome a chronic lack of funds, which is probably the main problem of the School; to reduce total amount of teaching load for individual academic staff; to increase the number of support staff; to provide more continuing education to staff; to introduce a more transparent and uniform system to screen incoming students for adequate basic knowledge in the EU-listed basic subjects; to enable and encourage interdisciplinary teaching and transversal knowledge; to establish a more balanced examination structure with limitation of oral examinations within the whole curriculum; to decrease the time needed for students to graduate; to increase the space available in the microbiology and infectious disease laboratory in order to foster proper teaching and research; to enrol graduates in clinical specialties, either as full-time or visiting professors, and to introduce rotating internship and residency programmes; to emphasise the problem-based and research-based teaching (and learning); to increase caseload in all species; to introduce ophthalmology teaching; to put in place a self-evaluation procedure for practical activities (especially for “*Tirocinio*”, which is an organised set of practical activities during which students have to fulfil the acquisition of a large part of their “Day One Competences”, as described in Standard 3); to assess the standards of performance, the results of which should be public domain; to foster specialisation in clinics; to increase partnership with industries (especially at international level); to increase on-farm activities; to implement practical teaching on poultry and rabbit medicine and production; to introduce a centralised coordination of research strategies towards veterinary subjects; to promote student involvement in research during the entire permanence at the School; to increase the number of available hard copies of reference textbooks suggested by the teachers, and in general, the number of up-to-date textbooks available for loan; to extend Library services at least per one hour every day.

All remarks and suggestions given during the 2011 visitation have been addressed, and most of them met, at least partially, according to resources and circumstances. Although the number of teaching staff (as FTEs) did not increase as expected, this had a low impact on the efficacy of teaching and research due to the decrease of some ESEVT values referred to students (number of undergraduate students and students graduating annually). Anyway, the problem of the funding needed to enrol new forces is far from being overcome. A policy of staff training and continuing education has been endorsed by the current UNICAM governance, and courses and seminars are periodically organised to improve the qualification of both teaching and support staff. Additional training courses are offered to temporary staff involved in extramural activities and external practical training (EPT). A centralised system for screening incoming students for basic knowledge in some EU-listed basic subjects (biology and chemistry in particular) has been implemented. The number of written exams has increased, even though oral examinations are prevalent. Although no residency programmes have been activated, the total number of diplomate staff has increased from 3 to 5, also in clinical areas (Clinical Pathology, Aquatic Animal Health, and Wildlife Population Health), and rotating internship has been active since 2019. Ophthalmology has been introduced and taught within the course of propaedeutics and internal medicine. Evaluation procedures to assess the standards of performance have been implemented for both theoretical and practical activities (even for “*Tirocinio*”), the results

of which are discussed with students at the end of each semester. Library services, in terms of increase of book heritage and extension of opening hours and days, have been improved.

Furthermore, some changes in the curriculum were also implemented, with a decrease in the number of hours per ECTS (European Credit Transfer System) credit in some subjects (some basic ones), and activities, particularly within the “*Tirocinio*”. The last significant changes in the VM curriculum were implemented in 2017, and are still in force. According to these changes, some activities were moved from one year to another, and the total amount of hours was rearranged for some teaching activities.

The Degree Course in VM (as well as the entire UNICAM) was accredited by the Italian National Agency for the Evaluation of the University and Research Systems (ANVUR) of the Ministry of Education, University and Research (MIUR, now Ministry of University and Research - MUR) in 2014. Finally, after the accreditation by the ANVUR, the ISO 9001 accreditation (obtained in 2004 as the first degree course in VM in Italy) was suspended under decision of the UNICAM governance, but achieved again in November 2020 (ISO 9001:2015).

As for the facilities, efforts for the acquisition of additional spaces have been taken in the light of the approach of ESEVT evaluation of 2021. Indeed, a project to build new spaces (lecture halls, a larger microbiology and infectious disease laboratory) has been approved by the Marche Region to replace the commended and unusable area of Building A (Figure 2). Such acquisitions of new spaces should have been achieved in due time in order to be tested, fully operative, and put in use, but, same as the increase of on-farm activities advocated by ECOVE in 2011, it was not possible to realise the plans, for the reasons described in the following paragraph.

Major problems encountered by the Establishment

The “historical” scarce investment in education (including universities) and research by Italian governments is a well-known fact, not only in Italy but also abroad. Such an attitude of Italian governments has more deleterious effects for a VEE belonging to a small university like UNICAM, as compared to what may happen to a VEE belonging to larger and better-established universities. A common problem of all veterinary establishments is that financial issues are further complicated by the mismatch between the fees paid by the students and the real cost of the education in VM, compared to other Faculties/Departments of the same University. Besides the chronic lack of functioning funds, which Italian universities have been facing for decades, and the economic crisis, UNICAM had to face several other problems in the last years, some raised locally, some encountered at a global level.

The area of Camerino was hit by two earthquakes on 26 and 30 October 2016 (magnitude 5.9 and 6.5, respectively), and four on 18 January 2017 (magnitudes 5.1, 5.5, 5.4, and 5.0). The main building of the VEE (all offices, warehouses, some classrooms, and most of the laboratories) was condemned as unusable at that time. Nevertheless, all teaching activities, in general, remained operative with minimal interruption. Lectures restarted as early as 11 November 2016 (two weeks before the official reactivation of teaching activities at UNICAM), thanks in part to the support of the Municipality of Matelica and a local high school, which made available three classrooms to relocate three of our student classes (1st year of VM, 1st and 2nd year of the three-year course in Safety of Zootechnical Productions and Promotion of Typical Food of Animal Origin). All the offices located in the condemned building were moved to two small classrooms (Lecture Halls H and N), and the study room of the library was moved to the SBVM-bVM Teaching Block. From the beginning of the seismic emergency, the Veterinary Teaching Hospital (VTH) never stopped its activities and remained fully operative, so that the Marche Region asked it also to support veterinary activities in the most critical areas. Despite the difficult situation, all laboratories (partially condemned after the earthquakes) were fully operational in June 2017. The seismic activity has gone on with frequent sequences of magnitude even higher than 5.0 throughout 2017 and 2018 (the last of magnitude 4.2 in April 2018). So, the state of emergency has been officially extended until August 2018 by the Civil Protection Department. The largest part of the main SBVM-bVM building (all offices,

warehouses, and some classrooms) has been refurbished and became usable again on 23 July 2020, by Decree of the Mayor of Matelica. Actually, the biggest problem has not been to ensure on-campus teaching activities, despite some colleagues and students losing their homes and belongings, and the almost complete destruction of many buildings of UNICAM. The acquisition of new spaces, personnel, and support has been the biggest challenge for our small academic reality in complying with the recommendations given by the Visiting Team in 2011, which have been planned over the past few years in the light of the EAEVE visitation in 2021. Unfortunately, keeping the Establishment attractive to students and their families, despite the fear of earthquakes (which seems to be a never-ending phenomenon), has been another big issue. Finally, the payment of tuition fees has been suspended for the Academic Years (AYs) 2016/17, 2017/18, and 2018/19, in order to make things easier for the students and their families. Fees were reintroduced in the AY 2019/20. Indeed, an additional problem (probably the most complex one) has been to cope with the reconstruction of the social, productive, and economic fabric of the area hit by earthquakes, and to make such a situation compatible with the needs of on-field training activities. Many enterprises, establishments, and farms have been destroyed or often relocated. People have moved to the coastal areas, and, in some cases, entire towns have been abandoned. Some relevant documents about the earthquakes of 2016 (including a translation of an official announcement given by the Regional Veterinary Authority at the end of January 2017) were sent to the EAEVE President and the ESEVT Director in May 2017, in order to inform them about the situation. The reconstruction is still far from being completed. The proof is that, at the moment of writing the SER, the main SBVM-bVM building is the first and the only public building that has been completely refurbished after the earthquakes in the town of Matelica, and that the centre of the town of Camerino is still destroyed and forsaken. Not to mention the problem of people that still haven't received any support from the Government for rebuilding or restructuring their houses, which appears to be impossible to do on their own.

Comments related to the COVID-19 pandemic

Furthermore, on 25 February 2020, teaching activities were discontinued by the Rector due to the COVID-19 emergency. After that, further restrictions were implemented by the Authorities. Since that date, teaching activities (exams, lectures, etc.) were performed as distance-learning, until the end of the semester. During this period, all restrictions enforced by the Government made carrying out practical activities impossible, both on the SBVM-bVM premises (laboratories, VTH, etc.), and on external locations (farms, producing plants, etc.). As well as the lockdown made the overall activity of VTH, the number of clinical cases, and the amount of practical activities performed by students have fallen dramatically between March and the end of July 2020. Thus, some alternative activities (case studies, simulations, journal clubs, etc.) were arranged to allow students to continue their studies, and to minimise the difficulties, and the delay of their graduation in particular. Another discontinuation of face-to-face lectures was set for the beginning of November 2020, lasting until the end of January 2021, with the exception of some practical activities within some courses, and reduced shifts at the VTH during the 1st semester.

Version and date of the ESEVT SOP valid for the visitation

The present Self-Evaluation Report was written following the ESEVT SOP, approved in Zagreb on 30 May 2019.

STANDARD 1 - OBJECTIVES, ORGANISATION AND QUALITY ASSURANCE POLICY

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

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

Description of the mission statement and the objectives

The main objectives and the mission of the School of Biosciences and Veterinary Medicine (SBVM) are the organisation and coordination of teaching and research activities, in order to provide the students with a high-quality education, based on improving animal welfare and health, as well as human and environmental health. This is achieved through the delivery of high-quality teaching, specialised animal clinical care, and advanced and updated research following international (Standards and Guidelines for Quality Assurance in the European Higher Education Area - ESG, European System of Evaluation of Veterinary Training – ESEVT, and ISO 9001), as well as national standards and guidelines (Italian National Agency for the Evaluation of the University System and Research - ANVUR). In particular, through the confluence of complementary skills and methodologies, the development of multidisciplinary research programmes, and of innovative technologies of common interest, the mission of the School is the promotion and development of research and training in the fields of Veterinary Medicine, Biosciences and Biotechnology. For this purpose, particular attention is given to the promotion and coordination of research activities, which are fundamental for providing teachers and students with adequate up-to-date training, and ensuring high-quality teaching (see Standard 10).

Another important task of the SBVM is the promotion of post-graduate and continuing education, and the improvement of the third mission. Furthermore, the SBVM has the purpose to act as a reference centre for diagnostic services and consultations to the veterinarians of the Marche Region and Central Italy, through the activity of the Veterinary Teaching Hospital (VTH), which is one of the two SBVM Operating Units, together with the Teaching and Research Unit (URDIS), located in San Benedetto del Tronto (province of Ascoli Piceno), as described in the Introduction and in the following sections.

The main objectives of the SBVM are schematised in Figure 1.1.

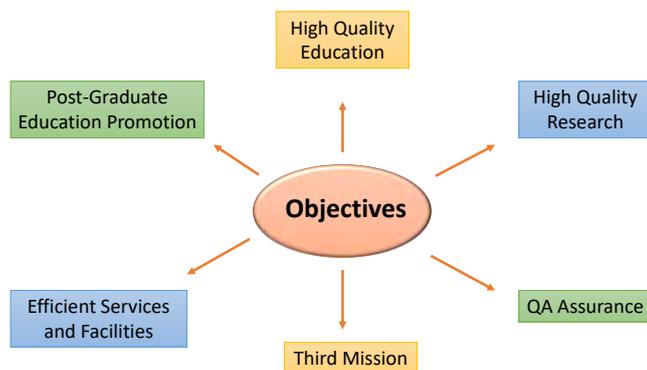


Figure 1.1. Objectives of the SBVM.

How the Establishment ensures that the provided core curriculum enables all new graduates to perform as a veterinarian capable of entering all common branches of the veterinary profession

The single-cycle five-year degree course in Veterinary Medicine (DCVM) (https://didattica.unicam.it/Guide/PaginaCorso.do?corso_id=10013; <https://www.universitaly.it/index.php/scheda/sua/44823#null>) is run by the School branch of Veterinary Medicine (SBVM-bVM), located in Matelica (see Introduction). The DCVM is included in the general area of public health and is open to a limited number of students (“*numerus clausus*”). It aims at educating future veterinarians through the provision of high-quality teaching. The DCVM at UNICAM is legally recognised at the European level, and certified according to the ISO 9001:2015 standards (<https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/Classi%20e%20servizi.pdf>), and it obtained the EAEVE full approval in 2011.

The DCVM represents the specific curriculum to practice the veterinary profession. Its primary objective is to provide proper education to train a professional figure who works both in the public and private sectors dealing with animal, human and environmental health, guaranteeing animal welfare and safety of food-producing animals, and favouring the coexistence between animals and humans (<https://www.universitaly.it/index.php/scheda/sua/44823#null>). The achievement of the educational objectives necessary for the veterinary profession is obtained when the graduate proves to possess a strong theoretical knowledge derived from basic and clinical subjects, strong clinical and practical competences, knowledge of animal behaviour and animal welfare, and finally, adequate competences in food hygiene and technology.

The competences acquired throughout the training period, allow the graduate to understand and solve new problems, especially in different epidemiological contexts concerning diseases of animal origin, potentially dangerous for humans, and in food safety. Theoretical and practical knowledge, together with the ability to use statistical tools applicable to clinical management are important pre-requisites for a modern veterinarian, particularly in larger contexts, where multiple professional skills and competences (i.e. biomedical, biotechnological, epidemiological, and agricultural) are required.

At the end of the training period, a DCVM graduate possesses judgment autonomy characterised by the ability to give differential diagnoses of clinical and anatomical-pathological situations, as well as by the ability of interpretation of results regarding collateral laboratory investigations. The autonomy of judgment and the critical skills regarding the decision taken also include their social and ethical impact. At the end of the DCVM, the graduate must be able to produce written reports or documents, by which he/she demonstrates to be able to formulate answers to concrete problems in a critical way, and to know how to communicate the results obtained to specialist and non-specialist interlocutors in a clear and unambiguous way. Finally, the veterinary profession is also supported by means of continuing education activities, collaboration in the 24h service at the VTH, and support to social activities (i.e. kennels).

In order to complete the training of veterinarians, some post-graduate courses are offered by the SBVM-bVM, as described in detail in Standard 10.

1.2 The Establishment must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.

The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.

The decision-making process of the Establishment must allow implementation of its strategic plan and of a cohesive study programme, in compliance with the ESEVT standards.

Details of the Establishment

Name of the Establishment: School of Biosciences and Veterinary Medicine (SBVM)

Address: Via Circonvallazione 93/95, 62024 Matelica (MC)

Telephone: (+39) 0737 403440

Fax: (+39) 0737 403441

Websites: <https://sbmv.unicam.it/> (SBVM); <https://veterinaria.unicam.it/> (SBVM-bVM)

E-mail: segreteria.veterinaria@unicam.it

Certified E-mail (PEC) address: sbmv@pec.unicam.it

Head of the Establishment

Guido Favia (Full Professor), Director of the SBVM

Via Gentile III da Varano, 62032 Camerino (MC)

Telephone: (+39) 0737 403230

Fax: (+39) 0737 403290

e-mail: guido.favia@unicam.it

Official Authority overseeing the Establishment:

Italian Ministry of University and Research (MUR)

Rector of the University of Camerino (UNICAM) - Claudio Pettinari (Full Professor)

The SBVM is part of UNICAM, a public university under the control the Ministry of University and Research (MUR). The UNICAM Statute (UNS) has been published in the Official Journal of the Italian Republic No. 236 of 10 October 2015, and entered into force on 9 November 2015. It is available in English at the web page http://www.unicam.it/sites/default/files/regolamenti/Statuto%20aggiornato%202015_EN.pdf. As

outlined in the UNS, the main bodies of UNICAM, which define the political and developmental strategies of the University, are the following:

- Rector
- University Senate (US)
- Board of Directors (BoD)
- Director-General (DG)

Other bodies of UNICAM are:

- Assembly of Representatives (AR)
- UNICAM Supporters Committee (USC)
- Committee for Equal Opportunities, Wellbeing at Work, and Against Discrimination and Mobbing (CUG)
- Student Council
- University Community Assembly
- University Evaluation Unit (UEU)
- University Sports Committee
- Board of Auditors

The **Rector** (Art. 15) represents the University for all legal purposes, and exercises functions of direction, initiative, and coordination of scientific and educational activities. He chairs the US and the BoD, and also issues the UNS, the Regulations, and respective amendments and additions. The Rector appoints no more than four Pro-Rectors from among full professors, one of which with vicarial functions (Vice-Rector), who replaces the Rector in case of impediment or absence. The Rector may delegate specific functions to other professors-researchers (International Relations, Research, Teaching, Relations with Students, etc.). The Rector's term of office is 6 years, and he/she may not be re-appointed.

AS (Art. 18) coordinates the "Schools" and the other University divisions that carry out teaching or research activities. It remains in office for 4 years and its members may be re-elected only once.

BoD (Art. 19) is competent for all matters relating to the programming of University's finances and assets, and acts in accordance with the financial decisions of the US. The BoD issues all executive

financial measures and regulations for office and service organisation. The members of the BoD may not simultaneously be members of the US or the AR.

The **DG** (Art. 28) is responsible for administrative activities of UNICAM and, on the basis of the guidelines provided by the BoD, for the overall management and organisation of the University services, instrumental resources, technical-administrative staff of the University, and the implementation of the programmes and provisions approved by the academic bodies. The role of the DG, remains in office for 3 years, is assigned by the BoD on the proposal of the Rector, upon the mandatory opinion of the US, and he/she must be a person with proven long-term experience of management functions.

According to Article 30 of the UNS, UNICAM is organised in Autonomous Divisions responsible for Research and Education, called “Schools”, and in “Service” divisions (Museum, Teaching Facilities, Libraries, Botanical Gardens, Sporting Centres, Technical and Administrative divisions). The Schools are the fundamental parts of the University and are responsible for performing and coordinating research, training, transfer of skills and knowledge, and services.

Schools have scientific, teaching, and functional autonomy, and also management autonomy, within the limits set by the UNS, as regards administration, finance, and accounting.

Today, UNICAM is composed of seven Schools:

- School of Architecture and Design
- School of Biosciences and Veterinary Medicine
- School of Law
- School of Pharmaceutical and Health Product Sciences
- School of Sciences and Technologies
- School of Advanced Studies
- School of Higher Studies “Carlo Urbani”

The SBVM has been established on the 1st of November 2013, by merging the School of Veterinary Medicine and the School of Biosciences and Biotechnologies. This merger had become necessary due to the reorganisation of UNICAM which, according to the previous statute (entered into force on 27 September 2012), subject to each School meeting the following requirements simultaneously: the teaching/research staff must belong to Academic Disciplines (AD) or Academic Recruitment Fields (ARF) (see Substandard 9.1), homogeneous as regards purpose or method; the number of teaching/research staff members at each School may be not less than 35.

Organisational chart of the Establishment, and a brief description of the decision-making process

The organisational chart (diagram) of the Establishment is exhibited in Figure 1.2.

As outlined in the SBVM Regulations (SR), approved on 26 March 2014 (Rector’s Decree No. 201), the SBVM has scientific, teaching, and functional autonomy. It has also managerial and administrative autonomy, within the limits set by the UNICAM “Regulations for Administration, Finance and Accounting”.

The SBVM is composed of the following:

- a) Professors/Researchers related to the disciplines and areas of interest of the SBVM
- b) Students enrolled in Degree Courses (DCs) established by the SBVM
- c) Technical and administrative staff assigned to the SBVM by the Governing Bodies of UNICAM.

As shown in Figure 1.2, the SBVM has two internal branches, homogeneous from the teaching and scientific point of view, aimed at promoting, coordinating, and organising the teaching, administrative, and research activities: the SBVM-bVM and the Biosciences branch (SBVM-bB).

Both branches are devoid of managerial autonomy, and each has a specific budget, which is supplied by services, research, and any other funded activity, according to percentages specifically established by the School Council or by UNICAM. Each branch has a Head, and a Representative, both elected by the branch staff, and then appointed by the Director.

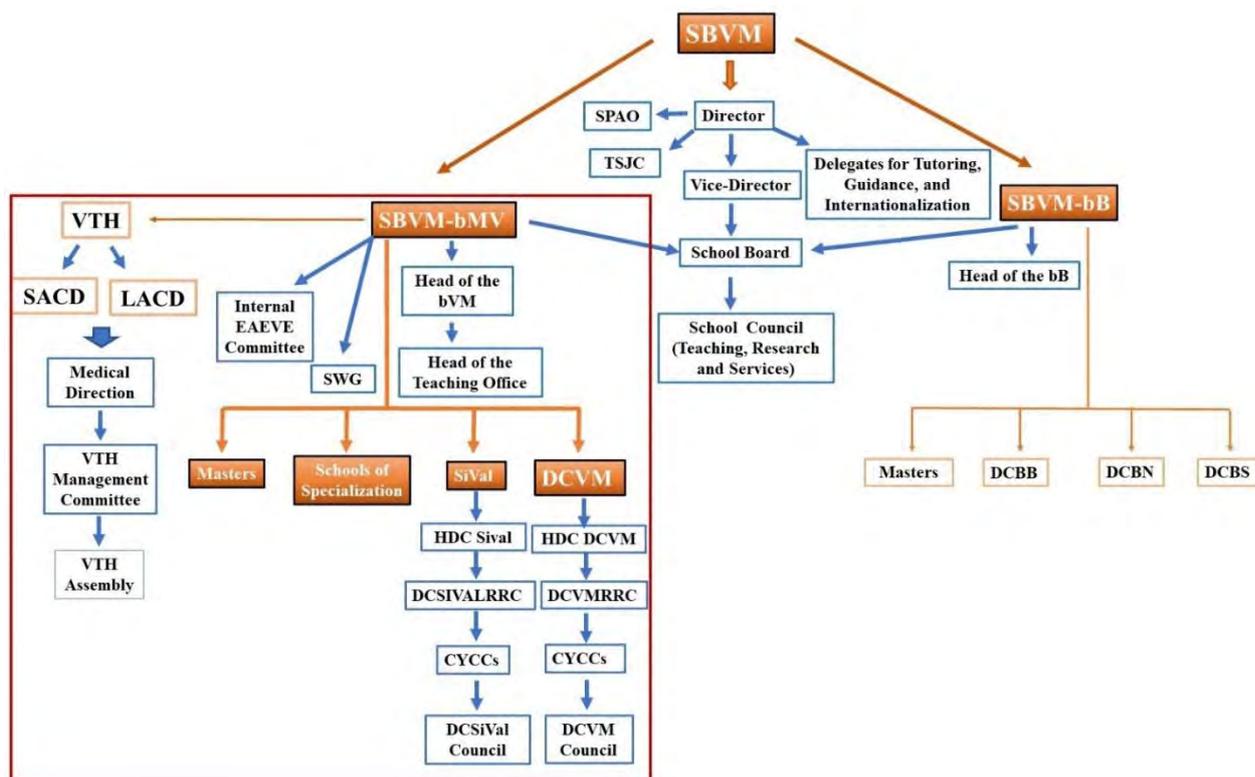


Figure 1.2. Organisational chart (diagram) of the Establishment.

Head of each branch has the task of assisting the SBVM Council in coordinating research and training activities, in which the branch is interested, and in reporting about these activities. Both, Head and Representative of each branch are members of the School Board (SB) (see below in this Substandard). Each branch promotes, coordinates, and organises teaching, research, and administrative activities, using the relevant spaces and equipment. However, the articulation in branches does not preclude joint purposes of research and teaching, and joint programme objectives set by the SBVM.

Chapter 5 of the SR specifies the roles of the branches. As for the SBVM-bVM, it provides for a Head and a Representative, who are elected by the components of the branch, and appointed by the Director of the SBVM. The Head has the task of assisting the SB and the School Council in coordinating research and training activities at the SBVM-bVM, and reporting on them to the School bodies. The Representative has the task of assisting the Head. The Head convenes and chairs recurrent meetings, in which professors/researchers of the branch participate, with the aim of programming, coordinating, organising, promoting, and verifying teaching activities. He/she organises the activities of the branch, including making proposals on the promotion of research activities and projects. The Head organises courses, conferences, and other initiatives, and makes requests for the activation of research grants, scholarships, contracts, and professional services.

In any case, being the branches devoid of managerial autonomy, as described earlier in the text, all the above-mentioned proposals must be evaluated and approved by the SBVM Council.

Within each branch, several Units are defined. Each Unit is made up of professors/researchers from similar scientific-cultural areas. The Units aim at promoting, coordinating, and organising specific services, research, and teaching support activities.

Brief description of the decision-making process

According to the SR and the UNS, the bodies of the SBVM are the following: the Director, the School Board (SB), and the School Council

The Director represents the SBVM and ensures its proper functioning; he/she convenes and chairs the SB and the SBVM Council, implementing its resolutions, with the help of the administrative and teaching divisions. He/she may delegate their functions to professors and researchers, respecting the gender balance. The Director is elected by an absolute majority of votes from among all full professors making part of the School Council. He/she remains in office for 4 years, and may be re-elected consecutively only once.

The Director appoints the Vice-Director from among full professors. In case of absence or impediment of the Director, the Vice-Director replaces him/her in all the functions provided for by law, Statute, and Regulations, even in the event of early termination of the Director's office. The Director promotes, coordinates, and supervises teaching and research activities of the School.

In carrying out his/her duties, the Director is assisted by the Vice-Director, the Study Programme Administration Officer (SPAO), the SB, the School Council, the School Delegates, and Heads of DCs offered by the SBVM. The composition and specific functions of the SB and the School Council are described below.

The SB has the task of assisting the Director in instructing the School Council, and in executing its deliberations.

The School Council is the collegial body for the direction and management of the SBVM, and may take all the decisions concerning the functioning and programming in all matters of the School's interest.

The School Delegates assist the Director in certain tasks related to teaching or research activities: student tutoring, student guidance, disability, internship & placement, and internationalisation. For each of the aforementioned items, specific Delegates (one for each branch) are appointed to deal with these matters and report to the School Council. In the case of the SBVM-bVM, the Delegates assist the students of the DCVM, and of the three-year Degree Course in Safety of Zootechnical Productions and Promotion of Typical Food of Animal origin (DCSIVAL).

The SPAO, together with the Head of the Teaching Office for each branch, supports the Director of the School and the Head of the DCs. They interact with students, teachers, Student Administration Office, offices for Student Services, and the Division for Programming, Evaluation and Quality Systems (DPEQS, see below). They have the task of assisting and supporting all activities relating to the organisational aspects of teaching activities, and in particular, they take care of the use of operating procedures and systems (CINECA-MUR and ESSE3) for the management of teaching activities. They also deal with the technical and administrative management of the school budget.

Each Head of the Degree Course (HDC) supervises and coordinates teaching activities of the DC, together with the Delegates and the Teaching Administration Officer. At the end of each semester, Head of the Degree Course convenes the Course Year Coordination Committees (CYCCs) to discuss all the issues arisen during the ended semester. The composition and tasks of CYCCs are described below.

List of departments/hubs/clinics, and brief description of their composition and management

The SBVM-bVM is a single division, and is not divided into departments. The different fields of interest are simply grouped as pre-clinical and clinical areas. The only subunit of the SBVM-bVM is the Veterinary Teaching Hospital (VTH), completed and operative since March 2011, and definitively established by Rector's Decree No. 101 of 2014, the functions of which will be described in detail below.

Besides being subject to the UNS, the UNICAM General Regulations and the SR, this unit is organised and operates according to the UNICAM Regulations for the VTH, issued by Rector's Decree No. 7392 of 12th February 2020 (<http://www.unicam.it/sites/default/files/regolamenti/Regolamento%20Ospedale%20Veterinario%20Didattico%20pubbl.pdf>). In addition to carrying out research activities in the clinical field, and practical teaching activities, the VTH manages the health of domestic and wild animals. The VTH is open 24 hours a day, every day of the year, and it ensures general and specialist medical services.

The VTH is the main venue for the clinical activity of the DCVM, the School of National Specialisation in Animal Health, Breeding and Zootechnical Production (AHBZP), iSAS Ph.D. students, and also for specialising master programmes, internships, and other courses organised and offered by the SBVM-bVM from time to time. A description of the VTH organisation is schematised in Figure 1.3.

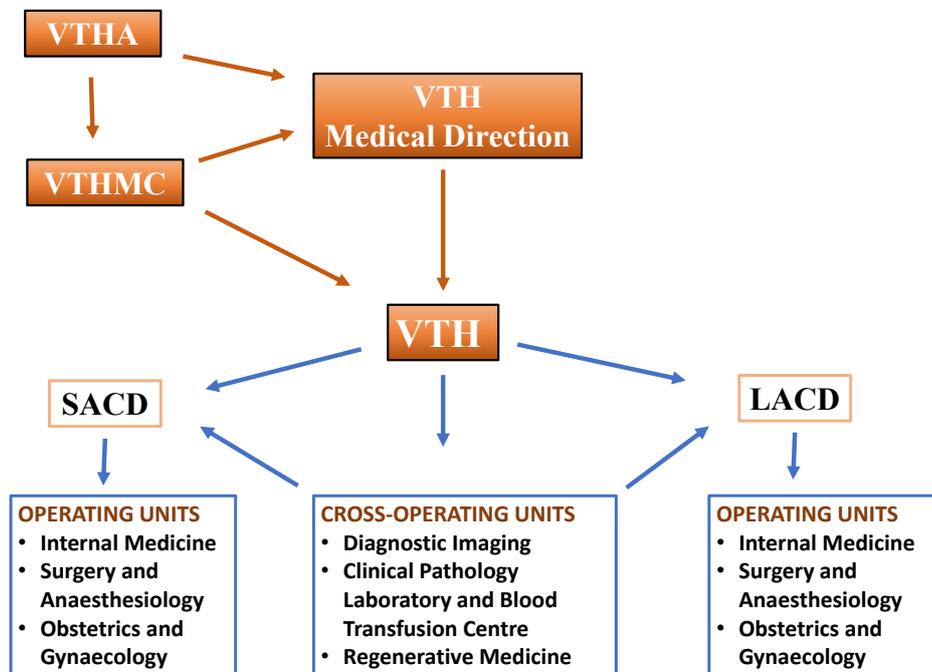


Figure 1.3. Description of the internal organisation of the VTH.

The teaching and research staff of the VTH is composed of professors and researchers of the veterinary clinical sectors in service at UNICAM, and Ph.D. students, research fellows, interns, fellows, and attending graduates. It is organised as Divisions and OUs, Medical Direction, VTH Assembly (VTHA) and VTH Management Committee (VTHMC).

- **Divisions and OUs:** they represent the functional sections of the VTH, where animals that need treatment are cared for. There are two Divisions: *Large animals, farm animals, and wild animals* (or *Large Animal Clinical Division – LACD*), and *Small Animal Clinical Division (SACD)*. Both are divided in the following OUs: Internal Medicine, Surgery and Anaesthesiology, and Obstetrics and Gynaecology.

In addition, the following OUs support both Divisions (cross-OUs): Diagnostic Imaging, Clinical Pathology Laboratory and Blood Transfusion Centre, and Regenerative Medicine.

- **Medical Direction:** the Medical Director (MD) must be a veterinarian elected by the VTHA (professors and researchers belonging to the VTH, see below) from among the professors/researchers of the clinical sectors, in compliance with the principle of gender equality, by secret ballot and absolute majority.

Medical Director remains in office for 4 years, chairs the VTHA and VTHMC, and is responsible for the management of the VTH. The MD appoints the Vice-MD, who assists him/her, and replaces him/her in case of absence or impediment. The MD leads the VTH, and is responsible for coordinating Divisions and OUs, which provide the health services.

- **VTHA:** it is constituted of all teachers and researchers belonging to the VTH. Moreover, Ph.D. students, Research fellows, Interns, and Student Representatives of the DCVM may participate in

the Assembly. The tasks of the VTHA are to perform an advisory role concerning the regular performance of the VTH activities, and to examine the annual financial report of the VTH. The Assembly appoints the MD and Heads of Divisions and OUs, from among the professors/researchers in the clinical area.

- **VTHMC**: it is constituted by the MD, the Vice-MD, Heads of Divisions and OUs, including those of the three cross-OUs (Diagnostic Imaging, Clinical Pathology and Blood Transfusion Centre, Regenerative Medicine). The VTHMC collaborates in the functioning and management of the VTH. It remains in office for 4 years.

The detailed description of organisation and management of the VTH is given in Standard 4.

List of Councils/Boards/Committees, brief description of their composition/responsibilities, and involvement of staff, students, and stakeholders

The **SB** has the task of assisting the Director in instructing the School Council, and executing their deliberations, and is summoned by the Director, or upon request of the majority of its members. It consists of the Director, the Vice-Director, one Representative for each branch, and the HDCs. The SPAO takes part in the meetings of the SB with consultative functions.

The **School Council** is the collegial body for direction and management of the SBVM, and may take all the decisions concerning the functioning and programming in all matters of interest to the School. It is composed of permanent teachers/researchers and fixed-term researchers, the SPAO, a Student Representative for each degree course, a Representative of Ph.D. students and Research Fellows, a Student Representative for each School of Specialisation, and a Representative of the Technical-Administrative Staff assigned to the School. The School Council meetings are convened and chaired by the Director. The Council usually meets once a month and provides for the implementation of all the tasks attributed to the SBVM by applicable laws, the UNS, University Regulations, and School Regulations. In particular, the tasks of the SBVM (and of all the Schools of UNICAM) are listed in the UNS (Art. 30), and described in detail in Annex 1.1.

The **TSJC** has the task to permanently control the teaching activities in the degree courses activated in the SBVM and has advisory functions regarding the quality and organisation of teaching and all related services (see Standard 3, Substandard 3.1.3). It expresses a mandatory opinion on the coherence between the number of ECTS credits assigned, the specific programmed training objectives, and the time required for the related study work for each teaching activity. In compliance with gender balance, as provided by the UNS, the TSJC is composed of the student representatives in the School Council, and an equal number of professors/researchers appointed by the School Council, respecting gender representation. The SPAO may take part in the meetings of the TSJC with advisory functions; experts and other persons informed on the topics under discussion may be invited for advisory purposes.

The **Course Year Coordination Committee (CYCC)** is established for each year of a DC and consists of all the teachers of that year of the course, and at least one student representative elected at the beginning of the AY by the students of the year they are enrolled in. One teacher is appointed as Coordinator. Thus, according to the SR, both DCs held at the SBVM-bVM (DCVM and DCSIVAL) have their CYCCs, appointed by the School Council. The CYCCs are convened by their respective Coordinators at least twice a year, after the end of each teaching semester (generally in February and June). Five CYCCs are appointed for the DCVM, one for each year of the course. The task of the CYCCs is to analyse the progress of the teaching semester, to discuss the results of the student evaluation questionnaires on teaching (see Substandard 9.5 and Annex 1.2), to highlight any critical issues and/or strengths, to propose any corrective or improvement measures aimed at increasing the level of quality of the DCVM (see Substandard 3.1.3). It must be highlighted that starting from the AY 2020/21, a new questionnaire has replaced the old one (http://www.unicam.it/sites/default/files/documenti-pag/2020/questionario%20didattica%202020_21_ITA_EN.pdf). The outputs from CYCCs are analysed and discussed by the DCVM Council. The **DCVM Council** is composed of the Head of the

DCVM, the five Coordinators of each CYCC, and two student Representatives of the DCVM (preferably enrolled in the fourth or fifth year). The Council meets twice a year, after the five CYCCs meetings. The purpose of the DCVM Council is to address and evaluate the most significant issues and aspects of the DCVM, formulating proposals or requests to be presented to the SBVM Council. The **Steering Working Group (SWG)** (see also Substandard 1.5) is composed of Representative(s) of Professional Veterinary Associations of the Marche Region, Representative(s) of the Veterinary Prevention and Food Safety Service of the Marche Region, Representative(s) of the Regional Health Authority of the Marche Region, Representative(s) of the relevant Areas and/or Services (e.g. Zootechnics, Environment, Agriculture, etc.) of the Marche Region, Representative(s) of the production industry. The SWG contributes to the definition of the role of the DCVM in the territory, suggests new teaching subjects and/or pathways (in particular, with a view to up-to-date research topics consistent with the needs of veterinary profession), and manages the relationship between the University and the local institutions. The SWG will be described in detail in the Substandard 1.5.

The **Internal EAEVE Committee** is a standing committee that constantly monitors the quality of the DCVM, making sure that it is aligned with the ESEVT Day One Competences and standards. It is composed of the Coordinator, 11 members of the teaching staff, one member of the Support Staff, one Research fellow, one Ph.D. student, and four undergraduate students.

The **Degree Course in Veterinary Medicine Review Reporting Committee (DCVMRRC)** drafts an annual report on the DCVM, which is sent to the ANVUR for the evaluation and accreditation within the AVA system (see Substandards 1.4 and 9.4). It is made up of the Head of the DCVM and other four teachers of the course. From time to time, they also draft a cyclic report on the whole five-year cycle of the DCVM. This Committee has to calculate specific indicators requested by the ANVUR in order to evaluate the quality of teaching and services offered to students during the year or the five-year cycle.

The **Research Committee (RC)** proposes scientific policies and research strategies to the School, and verifies the development and quality of research performed within the School.

The **Ethics Committee for Animal Welfare (ECAW)** was established in 2014 with the aim of evaluating and approving research projects that make use of living animals, in accordance with national animal welfare regulations and guidelines. It is composed of five members: three from the SBVM-bVM, one from the Law School, and one from the School of Pharmaceutical Sciences. It also supervises health and general conditions of the animals housed in the UNICAM centralised enclosure.

Student Career Committee (SCC) is an internal committee of the SBVM-bVM, which examines all student practices, careers, transfers with recognition of exams taken in other Italian or foreign universities (Erasmus). It is made up of the Head of the degree course, who chairs the Committee, two teachers of the course, and Head of the SBVM-bVM Teaching Office. The Committee meets several times a year, always before the School Council, whenever there are matters to be examined. Student files are then submitted to the School Council for final approval.

Description of formal collaborations with other establishments

The SBVM actively collaborates with other UNICAM Schools, and also with several Italian and foreign Universities, as demonstrated by the numerous cooperation agreements that the School activated with such Institutions. Furthermore, as described in more detail in Substandard 10.1, Table 10.1.1, the SBVM developed research collaborations in critical and innovative areas of veterinary medicine, at both national and international levels.

The internationalisation activity of UNICAM involves the implementation of agreements with European and third-Country universities and research centres for all forms of educational, scientific, and cultural cooperation, through the Office for Mobility and International Relations (OMIR). The opportunity to benefit from specific inter-university agreements, which guarantee the possibility of attending a foreign university, for a fixed time period, is offered to the students. UNICAM is part of

the European EURAXESS, a network of more than 200 centres located in 35 European countries. These aspects will be described in more detail in Substandard 7.1.

The detailed list of the DCVM agreements is given in Annex 1.3, which also includes the description of programmes and agreements in which the DCVM is involved. Further information relating to the University's Mobility and International Relations Service may be found at <http://international.unicam.it/exchange-programmes>

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

The Head of the DCVM is appointed by the School Council upon proposal of the teaching staff of the SBVM-bVM. Head of the DCVM is Prof. Anna Rita Loschi (DVM, Ph.D., ECVPH diplomate), full professor of Food Inspection. From the academic point of view, she is also responsible for teaching activities carried out at the VTH.

The MD of the VTH is Prof. Andrea Spaterna (DVM), full professor of Veterinary Internal Medicine. As outlined in the VTH Regulations, the MD is appointed by the VTHA, from among professors/researchers in the clinical area. He/she presides over the VTHA and the VTHMC. The MD is responsible for managing the structure, and represents the same before all the competent offices, and is responsible for the cost centres belonging to the VTH.

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

Summary of the Establishment strategic plan with an updated SWOT analysis.

SWOT analysis of the DCVM

Strengths

- The only veterinary training establishment in the Marche Region.
- Small university, and consequently:
 - proximity between teachers, TA staff, and students, with mutual acquaintances
 - simpler procedures
 - easy adaptability to changes
- Presence of the VTH, the only veterinary assistance service in the territory, open 24h/7 days a week
- Particular attention to the QA procedures, both national (ANVUR, ours being the first DCVM in MV in Italy), and international (ISO 9001 from 2003, ours being the first DCVM in Italy, to 2016)
- Compliance with international standards (full EAEVE approval in 2011)
- Close relationship with the territory and with regional and local institutions
- Good level of international exchanges (both, as regards teaching and research)
- Diversified educational offer, including postgraduate training
- Presence of a large number of European diplomates (5/30)

Weaknesses

- Geographical location
- Overall number of students reduced, and potentially high dropout rate
- Problems related to the consequences of the 2016/2017 seismic events:
 - exemption from the payment of university fees 2016/2017, 2017/2018, 2018/2019
 - reduced attractiveness
 - worsening of the economic crisis, and decrease of financial resources of families and businesses

- High number of irregular students (student who have not passed all their exams within the prescribed period of time), and excessive length of study
- Low number of both, teaching and TA staff (the latter in particular)
- Lack of financial resources
- Nearly total absence of European diplomates in clinical subjects, and scarce valuing of the existing ones

Opportunities

- Increase in the number of students enrolled in the DCVM
- Close relationship with the territory:
 - uncomplicated entering into agreements regarding educational activities
 - acquisition of new spaces for educational activities
 - acquisition of new meeting spaces for students
 - uncomplicated entering into agreements regarding sports and recreational activities
- Close relationship with regional and local institutions (DCVM is still considered a valuable resource by the territory)

Threats

- Lack of funds
- Small university, and consequently:
 - extreme vulnerability to any student dropouts, and to unexpected and unpredictable events
- Centralised admission procedure (MUR), and consequently, national ranking position and delay in student enrolment
- Excessive increase in the number of students enrolled in the DCVM in the last three AYs
- Poor livestock assets at territorial level
- Negative Consequences of the earthquakes of 2016 and 2017
 - depopulation of students, also due to the reduced number of students from the Marche Region
 - decrease in attractiveness
 - failure to allocate funds by the national and regional authorities
 - further decrease in production areas and livestock

Summary of the operating plan of the Establishment, with timeframe and indicators of achievement of its objectives

Context

The scheme below has been extrapolated from the overall strategic plan 2020-2023 of the SBVM approved by the SBVM Council in the session No. 70 of 10 June 2020 and refers to the SBVM-bVM, in particular to the strategic plan of DCVM, reported in full in Annex 1.4 in English.

Objectives of the DCVM

Education and training, including related structures and services

- Achievement of international standards in teaching, in particular in full compliance with the relevant European directives and recommendations in the European area of higher education (ESG), in order to guarantee a modern training path, which allows access to all the areas of the veterinary profession (Day One Competences), and a continuous process of quality improvement through the acquisition of EAEVE and ISO 9001:2015 accreditation
- Offering quality postgraduate education

Research

- Strengthening of research activities in order to improve their performance, in terms of structures, equipment, and scientific production, and also to increase the recruitment of teaching/researcher and support staff
- Increase the attractiveness of funding both at national and international level

Staff

- Increase of staff as a cross strategic objective to support the development actions expected in the other strategic areas

Student welfare

- Guarantee for an adequate level of student welfare as a mean to improve student involvement in the university life and to make the training path more effective through the creation of a comfortable student-centered learning and living environment

Third mission and technology transfer

- Increase in continuing education activities for veterinarians
- Identification of the SBVM as a reference point in the territory for specialized and excellent veterinary assistance

DCVM Operating Plan

OBJECTIVES OF DCVM	ACTIONS	TARGET	TIMEFRAME	INDICATORS	
1. Education and training, including related structures and services	Preparation of a modern veterinarian, according to international training standards, responsive to the needs of the profession and the territory, able to cover all areas of the veterinary profession	To conform the DCVM to national and international veterinary standards in order to ensure a modern training course, which allows access to all areas of the veterinary profession (Day One Competences)	December 2020 onwards	Achievement of ISO 9001:2015, national (ANVUR) and EAEVE accreditation	
	Enhancement of teaching structures and student support services	New lecture halls (n.3); new location for microbiology and infectious diseases laboratories; new premises for wild animal hospitalisation; new spaces for students (including IVSA)	End of 2021 onwards	Availability of new spaces and student support services (performance results)	
	Improvement of the DCVM curriculum	Strengthening of teaching and increase in the average grade for the DCVM; shortening of the average time to obtain the degree in VM	Annual, cyclical	Student questionnaires; ANVUR indicators	
		Increase the number of agreements with companies for practical activities, even for small animals	Progressive	Numbers of farms, companies, producing plants under agreement	
		Improvement of the organization of practical activities, especially external ones (Extramural and EPT), and increase of relationship with the territory	Creation of spaces and equipment dedicated to clinical activities on rabbits, rodents, birds, exotic and wild animals in order to increase VTH caseload	April 2021	Number of internal cases greater than the minimum ESEVT value
			Increase in the number of necropsies, particularly of pets, ruminants/pigs and horses	Progressive	Number of necropsies higher than the minimum ESEVT value
			Incentivisation of the involvement of contract teachers in training courses	Progressive	Participation of contract teachers in the activities

Standard 1 - Objectives, organisation and quality assurance policy

OBJECTIVES OF DCVM	ACTIONS	TARGET	TIMEFRAME	INDICATORS
1. Education and training, including related structures and services	Improvement of the internationalization activities	Improvement of the internationalization performance of teaching	Progressive	Annual review report data on agreements with foreign training institutions
		Increase in student and teacher exchanges with other foreign universities and institutions	Progressive	Annual review report data on ingoing/outgoing students and teachers
		Creation of the new Placement platform - "VET CAREER II"	January 2021	ANVUR indicators; data from AlmaLaurea
		Increase in incoming staff	Progressive	ANVUR indicators
		Improvement of student information on international mobility	Progressive	ANVUR indicators
		Increase in agreements with foreign Universities	Progressive	ANVUR indicators
	Increase in post-graduate training, also in response to the needs of the territory and the profession	Increase in number of master and other postgraduate courses; annual activation of both Schools of National Specialisation	Progressive	Number of postgraduate courses and training activities
		Increase in training courses, in collaboration with institutions, local authorities/ veterinarians, veterinary professional chambers, companies	Progressive	Number of training courses
	Enhancement of internships, activation of residency programmes	Increase in internships and European college diplomates, especially in the clinical area	Progressive	Number of European college diplomates
	2. Research	Quantitative and qualitative improvement of scientific productivity	Increase in quality and quantity of research products, including fund attraction ability	Cyclic: <ul style="list-style-type: none"> • annual (SUA-RD), • three-year cycle (ANVUR evaluation) • four-year cycle (VQR)
Improvement of the internationalization of research.		Increase of international scientific collaborations and production of related scientific publications	Cyclic: <ul style="list-style-type: none"> • annual (SUA-RD), • three-year cycle (ANVUR evaluation) • four-year cycle (VQR) 	SUA-RD data, single teachers' performance in research activity and funding attracting ability, ANVUR accreditation, VQR results
Increase of European college diplomates, especially in the clinical area		Increase of European college diplomates and their involvement in research projects	Progressive	Number of European college diplomates

Standard 1 - Objectives, organisation and quality assurance policy

OBJECTIVES OF DCVM	ACTIONS	TARGET	TIMEFRAME	INDICATORS
3. Staff	Increase in teaching and research staff, including contract teachers	Making all training and research activities carried out in the SBVM-bVM (including postgraduate training) more sustainable	Progressive	Number of FTEs progressively higher than the minimum ESEVT value
	Increase in support staff, particularly laboratories technicians	Making all training and research activities carried out in the SBVM-bVM (including postgraduate training) more sustainable	Progressive	Number of FTEs progressively higher than the minimum ESEVT value
	Increase of European college diplomates, especially in the clinical area	Improvement of teaching and research staff skills and competences	Progressive	Number of European college diplomates among teaching and research staff
	Improvement of continuous training process of teaching staff	Increase in participation of teaching staff in professional updating initiatives	Progressive	Number of teachers participating in training courses
4. Student's welfare	Increase in opportunities for students to live in environmental, psychological and physical conditions favouring an adequate development of the educational path	Agreements for recreational and sports activities in Matelica and transport arrangements for students to reach the sport facilities in Camerino.	Progressive	Number of agreements with sport facilities; number of transport arrangement to reach the sport facilities
	Increase in spaces for students	Making available to students more space for study/aggregation	End of 2021 onwards	Completion of the works for the acquisition of new space
	Enhancement of student support services	Favouring student services (e.g. students' office), particularly tutoring and associations (including IVSA)	Progressive	Student support service performance results, student evaluation (even by questionnaires)
5. Third Mission	Contribution to a high-quality continuous training of a modern veterinarian	Increase and improving of continuing education for veterinarians, to make the VTH a reference veterinary Institution for the territory and the profession	Progressive	Postgraduate training activities, number of specialist services provided at the VTH, number of cases managed by the various clinical services

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

Global policy and strategy of the Establishment for the assessment of outcomes and Quality Assurance

The UNS (Art. 7 - Quality of the activities carried out and their evaluation) states as follows:

1. UNICAM promotes systematic actions for the evaluation and verification of all its activities (training, research, student services, and administrative management), through a **Quality Assurance System (QAS)**.
2. The QAS is based on self-evaluation and external evaluation mechanisms, suitable to guarantee the continuous improvement of the activities carried out.
3. The QAS is aimed, in particular: at guaranteeing adequate training to the students, in order to meet the needs of the society; at promoting a prompt entry into the labour market; at removing the critical issues that emerged through the surveys conducted among the students. The QAS is also a tool for the modulation of resources to be attributed to the departments.
4. To verify the correct management of resources, the productivity of research, the effectiveness and efficiency of training, the impartiality and the good performance of the administrative action, as well as the adequacy of its actions, the QAS makes use of the analyses and guidelines formulated by the UEU.

UNICAM has decided to adopt a QAS inspired by best practices at national and international level. Consistent with the spirit defined in the UNS, the UNICAM QAS is aimed at ensuring the effectiveness and efficiency of scientific research and technology transfer activities, the training processes, and resource management. For this reason, it promotes systematic actions for monitoring, evaluating, and verifying the performance produced and the results obtained.

To pursue the quality policy, and in consideration of the international, national and internal regulations in force, UNICAM has set up the **Quality Supervision Board of the University (QSB-U)**, which was established by Rector's Decree No. 131 of 15 April 2013, and currently is supported by the DPEQS.

The QSB-U has the following tasks:

- supervision and coordination of the Quality Assurance (QA) procedures for the entire University
- identification of common tools for QA, and training activities for their application
- support of the School Directors, their Representatives, and Collaborators for the joint activities.

Its tasks and composition are described in detail in Annex 1.5.

The **UNICAM QA process** is schematised in Figure 1.4.

DPEQS is the division that provides technical and operational support, and coordinates the activities of the various departments involved in the QAS. It coordinates and carries out the internal audit cycles, and assists external evaluation/accreditation groups or commissions. DPEQS directly manages and coordinates all the data useful for the evaluation and analysis of the progress and the satisfaction of students for all the DCs of all the Schools at UNICAM. Furthermore, it provides useful information for the review and the possible redesign and redefinition of educational objectives of DCs. DPEQS has drawn up a **Quality Manual (QM)**, revised on 3 December 2019, which also contains the procedures for the design and implementation of the DCs and related support services. The QM fulfils the ISO 9001:2015 standards, and is compliant with the 2015 ESG. Furthermore, it meets the guidelines and the recommendations outlined in the AVA (Self-Assessment, Evaluation and Accreditation) document, issued by the ANVUR on 9 January 2013. The QM is available at: https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/MQ%20ISO%209001_2015%20ENGLIS H.pdf

The organisational structure of UNICAM (statutory bodies), as well as responsibilities and roles involved in the Quality Management System (QMS), are described in Section 2.2, part A of the QM. The relevant scheme is exhibited in Figure 1.5.

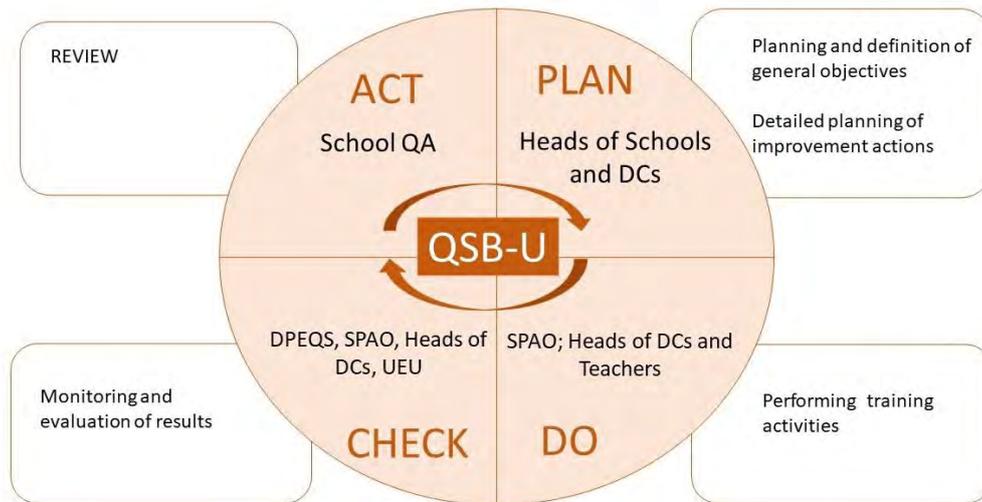


Figure 1.4. The QA process of UNICAM.

Quality Management System Administration Bodies



Figure 1.5. Scheme representing the statutory bodies of UNICAM responsible for QMS.

The management of the QMS at School level is described in Section 2.2, part C of the QM, and is exhibited in Figure 1.6. It must be pointed out that, at School level, there is no specific body acting as Quality Supervision Board of the School, but its overall tasks are carried out through meetings and activities of individual committees and/or bodies, which ultimately account for the entire QSB-S (see Substandard 1.6).



Figure 1.6. Scheme of the management of QMS at School level (see also Substandard 1.6).

The **Degree Course Review Reporting Committee (DCRRC)** is composed of:

- the DCC
- the Rector's Proxies in charge of support services for educational activities, or other teachers with responsibilities within the School (Guidance, Tutoring, Internship & Job Placement, International Mobility)
- Students' Representatives

The TSJC has already been described in Substandard 1.2

The QM (section 4.1) provides a mapping of the interested parties and their expectations, which are provided in detail in Annex 1.6. In particular, the expectations of the teaching and support staff are described in detail in Substandard 9.4 (Figure 9.2). Figure 1.7 maps the interactions between UNICAM and interested parties

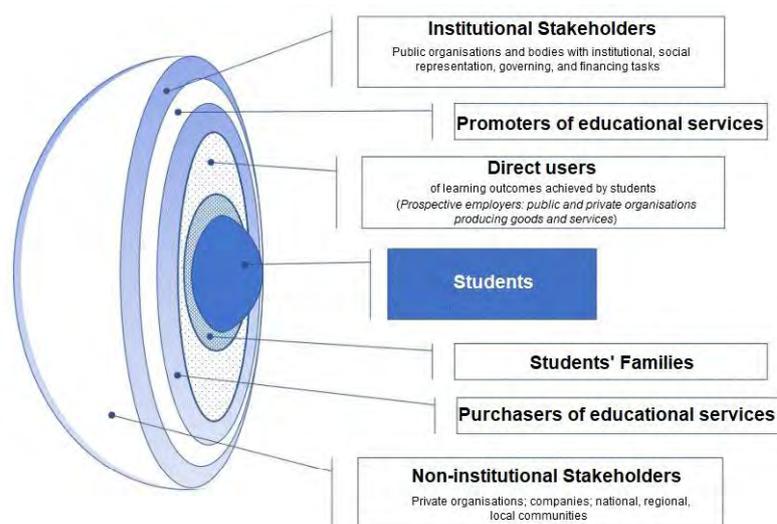


Figure 1.7. Mapping of the interactions between UNICAM with the interested parties.

Process Model of the QMS

The QAS defines the activities to be carried out, and the relevant implementation methods, assigns management and execution responsibilities, defines the registrations of quality. In this perspective, the processes and activities managed by the UNICAM QMS are represented in Figure 1.8.

A detailed description of some aspects of the QMS process, schematised in Figure 1.8, is included in Annex 1.7.

ISO 9001 Certification of the DCVM

The DCVM at UNICAM was certified according to the ISO 9001 standards until the year 2016. The last certification of its teaching system (ISO 9001:2008) was released on 31 October 2015 by the French certification body AFAQ-AFONOR (<https://certification.afnor.org/marque/afaq>). The final AFAQ-AFONOR report highlighted that the system has demonstrated a majority of strengths in terms of fulfilment of ISO 9001:2008 standard, the quality of the services provided (educational and support), and the permanent satisfaction of customers, as well as of all the interested parties.

The certification number of the “Università di Camerino, UNICAM” was 3132336.

UNICAM applied again for the ISO 9001:2015 accreditation. The external audit should have been carried out in December 2019, but was postponed due to the unavailability of the evaluator, and then to the coronavirus emergency. Recently, the external audit by the AFAQ-AFONOR took place (online, due to COVID-19), from 9 to 13 November 2020, and the certification was achieved again in November 2020, according to the ISO 900:2015 standards, including the DCVM.

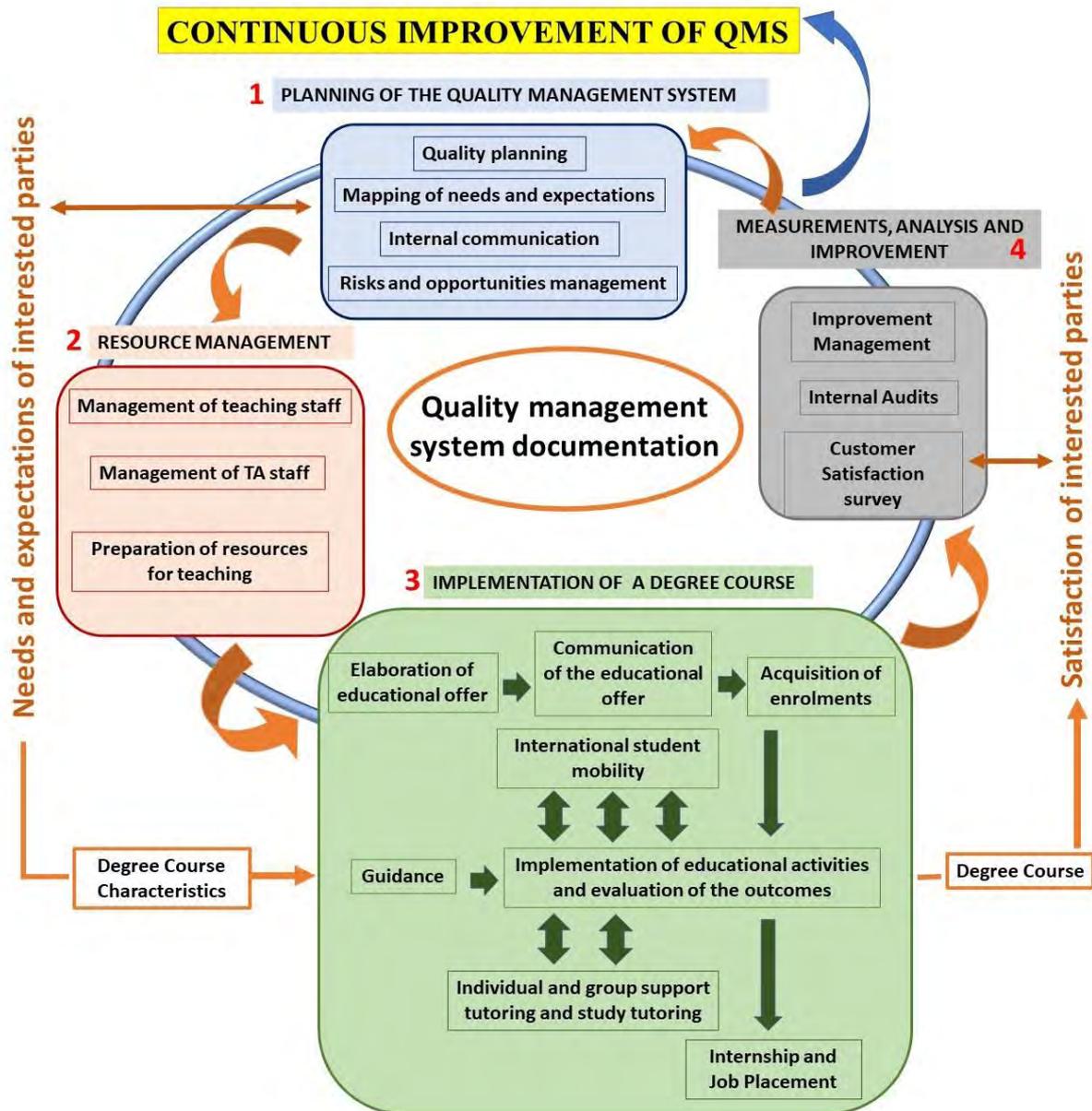


Figure 1.8. Processes and activities managed by UNICAM for the continuous improvement of the QMS.

MUR-ANVUR accreditation of the DCVM (AVA system)

The national AVA system, managed by the MUR, has the objective of improving the quality of teaching and research activities carried out at Italian universities, through the application of a QA model based on internal design, management procedures, self-evaluation, and improvement of educational and scientific activities, and external evaluation, carried out in a clear and transparent manner. The evaluation results in an accreditation judgment, the result of a process through which the university (and its DCs) are recognised as meeting the quality requirements that make it suitable for carrying out its institutional functions, through an initial accreditation, and subsequently through periodic accreditation. This system has been operating since 2013, and the UNICAM DCVM, as well as the entire UNICAM, was accredited on 14 June 2014, being the first DCVM accredited in Italy. The AVA system for higher education, managed by MUR and entrusted to the ANVUR, (<https://www.anvur.it/>) aims at achieving three main objectives:

1. guaranteeing to the users and to the society that Italian higher education institutions have a uniformly good quality level
2. demonstrating responsible and reliable autonomy of universities in the use of public resources, and in collective and individual conduct relating to educational and research activities
3. demonstrating continuous improvement of the quality of educational and research activities.

The periodic accreditation of UNICAM and all its DCs was granted again by the MUR, based on the ANVUR opinion, on 2 August 2017, with the “fully satisfactory” accreditation status. The accreditation of the University and the DCs lasts 5 AYs and 3 AYs, respectively. So, the DCVM should be re-evaluated in a short time. The accreditation document is available at: <https://sgq.unicam.it/sites/sgq.unicam.it/files/Accreditamento%20periodico%202017.pdf>

All the Expert Evaluation Commission (EEC) reports are available at: <https://sgq.unicam.it/intranet/2018/relazione-finale-prodotta-dalla-cev-e-rapporto-anvur-20-gennaio-2016> through a username and password procedure.

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

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

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

UNICAM has a fruitful collaboration with various institutions and representatives of the labour market:

The **UNICAM Supporters Committee (USC)** (Art. 21 of the UNS) promotes an effective collaboration with institutional, cultural, educational, social, and economic aspects of the community. In particular:

- a) it contributes to the planning and implementation of the educational, scientific and knowledge transfer and skills of UNICAM, through logistical and financial support initiatives;
- b) it represents a permanent link between the University and the socio-economic context, also in order to achieve the entry of the graduates in the labour market;
- c) it provides opinions and proposals aimed at enhancing the presence of UNICAM in the territory
- d) it contributes, through working groups, to the design and definition of curricula, so as to encourage the dialogue between demand from the production industry, professions, and services, and the University’s educational offer.

The USC is made up of representatives from the world of business, culture and professions, institutions and associations, credit institutions, public service companies, trade associations, consumers, associations of the Marche in the World, university graduates (Alumni), who are committed to promoting the University’s activities, also through financial contributions.

The Rector convenes the first meeting for the election of the President of the USC from among the members of the Committee with a documented University-supporting activity for at least three years. The Committee appoints two members for the Board of Directors. Meetings of the USC are also attended by the President of the UEU, and the Director General or his/her delegate, with minute-taker functions. The President remains in office for four years.

The **Steering Working Group (SWG)** of the DCVM is made up as follows: Head of the DCVM, the Head of the SBVM-bVM Teaching Office, Representative(s) of the Professional Veterinary Associations of the Marche Region, a Representative of the Veterinary Prevention and Food Safety

Service of the Marche Region, Representative(s) of the Regional Health Authority of the Marche Region (ASUR Marche), Representative(s) of relevant Areas and/or Services (i.e. Zootechnics, Environment, Agriculture, etc.) of the Marche Region, Representative(s) of the production industry. The SWG meets at least once a year and is entrusted with advisory functions on the various aspects of the professional situation of strictly veterinary and health interest, with a particular view on the educational path, which should be consistent with the needs of the present professional situation, and be based on research consistent with actual topics of veterinary science (see also Substandards 1.2 and 3.4). The activity of the SWG is based on the firm belief that, taking into account the diversified roles of the veterinary profession, the common objective is represented by health prevention aimed at safeguarding animal and human health, and the environment, also via the safety of food of animal origin, and that, in this regard, high-quality hands-on practice should be favoured.

The **Standing Committee for Territorial Development (SCTD)** is an important tool for strengthening the relationships between UNICAM and the territory. It was established several years ago, with the aim of identifying multiple strategies to favour cultural, social, and economic development of the territory, thanks to the collaboration with local institutions. The SCTD meets on every first Monday of the month, and is coordinated by the Pro-Rector for territorial relationships, who deals with public and private institutions. Besides the Pro-Rector, the Committee also includes the Mayors of six municipalities of the territory (Camerino, Castelraimondo, Fabriano, Matelica, San Severino Marche, Tolentino), and the Presidents of three Mountain Unions included in the same area (Camerino, Monti Azzurri, and Alte Valli del Potenza/Esino).

AlmaLaurea is an Interuniversity Consortium established in 1994, and currently counts 76 Universities as members, and represents about 90% of Italian graduates. The Consortium is supported and funded by the member Universities, by funds from the MUR, by the companies and the bodies that use the services offered. AlmaLaurea surveys the Profile and the Employment status of the graduates annually, after 1, 3 and 5 years, returning to the member Universities, to the MUR, and to the ANVUR reliable documents and data bases, in order to simplify the decision processes and the planning of the student training and orientation activities and services; it monitors the students' learning paths, and analyses the graduates' characteristics and performance at the University, and in the labour market, making it possible to compare different university courses; it collects and makes available online the CVs of the graduates, in order to facilitate the transition to the labour market; it evaluates the needs and professional profiles required by public and private, Italian and foreign companies, and carries out staff selection and search.

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

As regards the information about the ESEVT Establishment's status, it may be freely accessed on the DCVM website (<https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria>). The last ESEVT Self Evaluation Report, and the relevant Final Report referred to the 2011 visitation, are available on the SBVM-bVM website (<https://veterinaria.unicam.it/it/approvazione-eaeev>) where they can be freely consulted and downloaded.

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

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

QA in the SBVM and in the DCVM

For each DC active at UNICAM, the evaluation of teachers, school's premises, organisation, and services are carried out, by means of the **questionnaires for the evaluation of teaching activities** that are anonymously filled out by all students at the end of each semester. The questionnaire is a tool aimed at detecting students' opinions, in order to improve the teaching and organisation of the DC.

These are multiple-section questionnaires, filled in on-line anonymously for each teaching course (see Substandard 9.5), which allow various aspects (organisation, teaching and study activities, infrastructures, interest and student satisfaction, general organisation of the DC) to be evaluated. Since the questionnaire is an important tool in the QMS, students are frequently made aware of the importance of filling-in the same. The completed questionnaires are first evaluated by the UEU, and are also used by the SBVM Council, in order to improve organisation and services, as well as to address problems and issues related to the quality of teaching. The official aggregated results of student evaluation of each DC are made available online, at (http://web.unicam.it/sgq/questionari_didattica.htm), at the end of each AY.

Furthermore, the DCVM (as well as all DCs) provides **individual and group tutoring meetings**, which take place about every six months, usually at the end of each semester. The group tutoring meetings are convened and chaired by the Rector's Proxy for Tutoring at the SBVM-bVM. Head of the DC, the students' representatives, and all the students enrolled in the DC also participate in these meetings, the aim of which is to check for any inconsistencies between the educational objectives and the actual contents of single activities, to highlight and discuss possible criticism and problems encountered during the semester, and to find possible corrective actions.

As mentioned earlier in the text, the SBVM has its own scientific, teaching, and functional autonomy, and, within the limits set by internal regulations and current legislation, also managerial autonomy. In order to manage the DCs according to the quality criteria, the SBVM is supported by the Quality Supervision Board of the School (QSB-S). The QSB-S represents a complex coordination body at peripheral level, composed of Coordinators/Heads, and some members of the different committees and bodies included in the QA path (e.g. the TSJC, CYCCs, etc.). Generally, the QSB-S does not meet in plenary sessions, but its overall tasks are carried out through meetings and activities of individual committees and/or bodies, which ultimately account for the entire QSB-S. The QSB-S is made up of the following: the Director of the SBVM (who coordinates the QSB-S), the Vice-Director of the School, Head of the SBVM-bVM, Head of the SBVM-bB, the HDCs (one for each DC), the Coordinator of the TSJC, the Directors of the Schools of Specialisation, the Rector's Proxies for services related to teaching activities (generally for Guidance, Tutoring, Internship & Job Placement, and International Mobility), the SPAO., the Head of the Teaching Office of each School branch, the Student Representatives (one for each DC and one for students attending VTH activities).

The SPAO, in collaboration with the Teaching Office of each School branch, in the first place, supports the Director and HDCs, and interacts with students, teachers, Student Administration Office, and offices for student services.

DPEQS has the task of assisting and supporting all activities relating to the organisational aspects of teaching, and, in particular, manages the application of operating procedures for the management of teaching activities.

Furthermore, according to the Regulations of the SBVM, besides the tools normally provided for the QA in each School, the SBVM-bVM has set up the following additional bodies for the DCVM: the CYCCs, one for each year of the DC (five Committees for the DCVM), and the DCVM Council, described in Substandard 1.2.

As already described in Substandard 1.2, Head of the DCVM also chairs the meetings of the **DCVM Review Reporting Committee (DCVMRRC)**, a body composed of four teachers/researchers proposed by the DCVM Council and appointed by the School Council, and a student representative. This body, with a purely consultative function, has the task of analysing all the data available about the DCVM, and preparing the DCVM Review Report (Annual and/or Cyclic), to be submitted to the

ANVUR for periodic accreditation. The document must be submitted first to the TSJC of the School, then to the QSB-U, and finally for the approval of the SBVM Council (see Substandard 1.4). The final document is submitted to the MUR. In the preparation of the DCVM Review Report, the opinion of the SWG is also taken into consideration, as regards the impact of the DCVM on the territory and the production industry, services, and professions.

In the **Annual DC Review Report**, all the data concerning the DC performances are analysed and commented. As a result, the problems of utmost importance should be identified, as well as the objectives to be achieved, and the ways to obtain the verifiable results described. DC strengths should be also reported if deemed of particular value and interest. Subsequently, the data concerning the student experience are reported, the questionnaires for the evaluation of teaching activities, compiled by the students, are taken into consideration, as well as the opinion of the students representative(s). Finally, the employability is taken into consideration, in terms of percentage of students who found work after graduation, as well as the years necessary to obtain the degree.

In the **Cyclic (3 years) DC Review Report**, the analysis and the comments on the surveys and consultations concerning the production industry, services, and professions that the DC has considered or conducted over the years in order to define the training request, are reported. In addition, the comments on the learning outcomes of the entire DC, and of the individual teaching courses, are also reported.

The analysis of the ability to ascertain the effective achievement of the expected learning results by students is performed. Then, the comments on the effectiveness of DC management, and any need of its redefinition or revision, are reported. Similarly, in the annual review report, but on a three-year basis, the main issues and problems are identified, and then the objectives to be achieved and the ways to obtain a verifiable result are described.

The QA process of the DCVM is schematised in Figure 1.9.

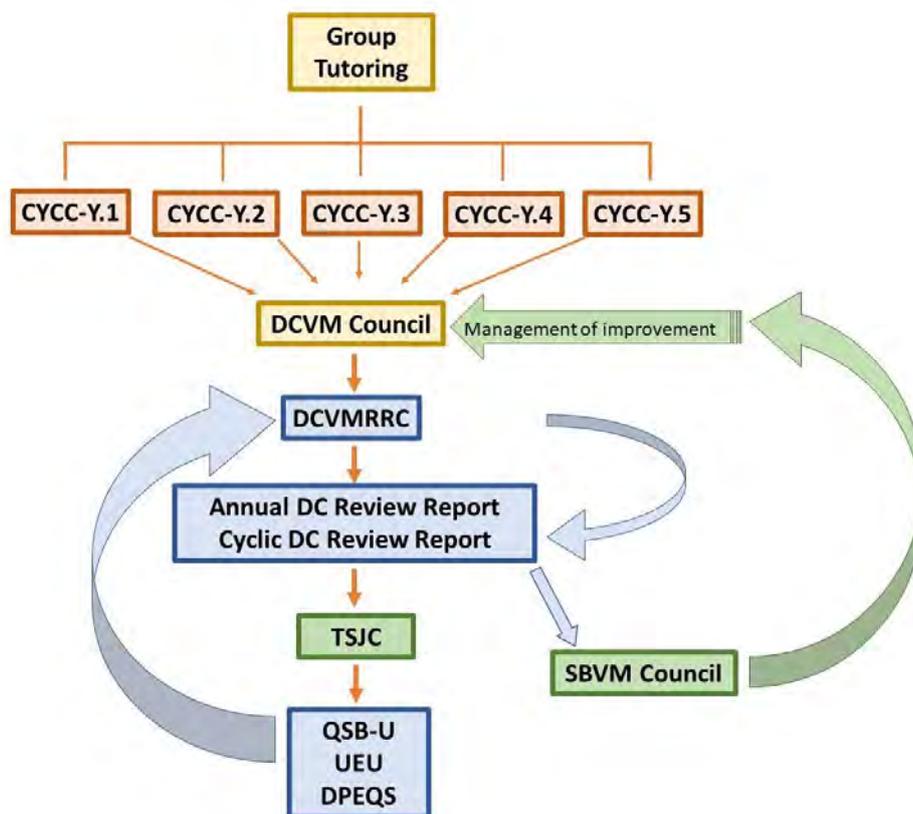


Figure 1.9. QA process of the DCVM.

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

The DCVM of the SBVM was visited in April 2011 by the EAEVE Visiting Team, which, based on what was reported in the SER and what was observed and verified during the visitation, expressed a fully positive opinion in the Exit Presentation, which was definitively confirmed by ECOVE in November 2011 in its final report.

The outcomes released by ECOVE at that time highlighted one minor deficiency, represented by the low number of teaching staff members, and several recommendations and suggestions referred to different standards.

Consequently, the QA bodies of the DCVM and its Internal EAEVE Committee carried out a thorough analysis of the DC, in order to face the critical issues through the QA mechanisms that have been previously described. Most of the critical issues were overcome, others were partially resolved, according to resources and circumstances.

The critical issues raised by ECOVE, together with the corrective actions taken, are listed below:

- **Recommendation/suggestion:** *The lack of funds, probably the main problem of the School, which essentially prevents the enrolment of new permanent staff as well as the possibility of extending or making more stable the appointments of non-permanent staff.*

Actions: The situation has not changed much, and the lack of funds continues to be a serious problem. The SBVM is still suffering from financial cuts from the Government, and the 2016 seismic events made the situation even more complicated. The solution of this problem is to further increase funding resources from clinical and research activities.

- **Recommendation/suggestion:** *The total amount of teaching load for individual academic staff is too high, and the number of support staff is too low. Nevertheless, related standards are acceptable.*

Actions: The number of teaching staff members (in FTE) did not change so much, but had a lower impact on the efficacy of teaching and research, due to the decrease in some ESEVT values referred to the students (number of undergraduate students, and students graduating annually). Anyway, the problem of funding needed to enrol new forces is far from being overcome. At present, new support staff positions have been opened by means of fixed-term contracts (considering the period of economic crisis worsened by the consequences of earthquakes), in order to improve the increasing trend, already observed in the last three years, and to make the Indicator compliant, as much as possible, with the relevant ESEVT standard, especially by strengthening some more critical areas (morphology, infectious diseases, surgery, IT device maintenance, etc.).

- **Recommendation/suggestion:** *The building which hosts the microbiology and infectious diseases laboratories has insufficient space for proper teaching in any larger groups.*

Actions: There is a project for the construction of new microbiology and infectious disease laboratories. This project involves the recovery of the building A (see Introduction, Figure 3), which is located right in front of the current laboratories. Unfortunately, the 2016 seismic events that hit the area caused a slowdown in the projects and the construction sites opened before the earthquake, in order to favour the post-earthquake rebuilding.

- **Recommendation/suggestion:** *There are some staff with European Board qualifications (3), not all of them supervise residents. The introduction of rotating internship programmes and residency programmes should be a strategic priority.*

Actions: Although no residency programmes have been activated, the total number of diplomate staff has increased from 3 to 5, also in clinical areas (clinical pathology, aquatic animal health, and wildlife population health), and a rotating internship was activated in 2019; furthermore,

within the residency programme of the European College of Aquatic Animal Health, the SBVM-bVM has been recognised as satellite training centre (<http://www.ecaah.org/training-centres/>).

- **Recommendation/suggestion:** *The average duration of study time is 7.96 years which is considered excessive. The full implementation of the new curriculum should correct this undesirable situation which also is linked to the problem of “irregular” students (students enrolled in years following the 5th, see Substandard 7.1).*

Actions: Although a new curriculum was activated in the AY 2008/09, and more small changes have been introduced in the AY 2017/18 (see Substandard 3.1), the undesirable problem of “irregular” students (students who have not passed all their exams within the prescribed period of time) (see Substandard 7.2) still persists.

- **Recommendation/suggestion:** *Basic science teaching is satisfactory in all areas; nevertheless, a more transparent and uniform system should be introduced to screen incoming students for adequate basic knowledge in the EU-listed basic subjects (physics, chemistry, animal and plant biology, biomathematics).*

Actions: As outlined in Substandard 1.4, upon recommendation of the EEC of the ANVUR, starting from the AY 2015/16, two additional bridging courses (chemistry and biology) have been implemented; these courses are mandatory for students enrolled in the first year with conditional advancement to the next year of the course (i.e. those who obtained a score in the VM admission test lower than 8/16 in chemistry and biology); at the end of the courses, the students must demonstrate the overcoming of the deficiencies found; these courses are also open to all interested students (even those without conditional advancement).

- **Recommendation/suggestion:** *Hands-on teaching and learning is a priority and is successfully implemented in both, the large and small animal clinics. The surgical caseload, which is just adequate for the number of students; it should be monitored and should increase.*

Actions: A way to increase the caseload is to enlist valuable colleagues who, contractually, bring their cases to the VTH in order to use equipment and facilities, and are even collaborating with the VTH; signing collaboration contracts with specialists and Diplomates.

- **Recommendation/suggestion:** *The lack of ophthalmology teaching is a negative point and should be corrected.*

Actions: Ophthalmology has been introduced and taught within the course of propaedeutics and internal medicine since the AY 2013/14

- **Recommendation/suggestion:** *Continuing education programmes to increase teaching quality for professors should be offered.*

Actions: Starting from the AY 2016/17 to date, UNICAM has been organising a series of workshops, seminars, and training activities, namely “UNICAMforma”, held by external teachers. These seminars are organised by the Quality Supervision Board of the University, with the aim to improve qualification of both, teaching and support staff. Other training courses are offered to temporary staff involved in extramural activities (see Substandards 6.2 and 9.3).

- **Recommendation/suggestion:** *Interdisciplinary teaching and transversal knowledge should be enabled and encouraged.*

Actions: Interdisciplinary teaching and transversal knowledge has been enabled in some subjects (e.g. radiological anatomy, evolution of digestive apparatus of herbivores).

- **Recommendation/suggestion:** *A more balanced examination structure with limitation of oral examinations within the whole curriculum should be established.*

Actions: The number of written exams has increased, even though oral examinations are prevalent.

- **Recommendation/suggestion:** *Put in place a self-evaluation procedure for practical activities (especially for “Tirocinio”).*

Actions: Evaluation procedures for the assessment of the standards of performance have been implemented for both, theoretical and practical activities (even for “Tirocinio”), the results of

which are discussed with the students at the end of each semester, during the meetings of the CYCCs (see Substandard 1.6).

- **Recommendation/suggestion:** *Extend Library services at least per one hour every day.*

Actions: Library services have been improved, in terms of increase of Library's book collection and extension of opening hours and days.

Comments on Standard 1

As regards to the collaborations with other establishments and international mobility of students and teachers, it should be recalled that in the last five years, the protracted economic and geopolitical crises have severely limited the growth of international exchanges, in terms of student and teaching staff mobility, both outgoing and incoming. In particular, in the AYs 2017/18 and 2018/19, the Turkish crisis first, and then the Turkish-Kurdish conflict, generated strong restrictions as to the mobility of university teaching staff, with repercussions (albeit less dramatic) on student mobility, which returned to increase in 2018. The restriction of visas for Turkish teaching staff has however significantly reduced the item of the teaching staff mobility incoming towards the DCVM, just as the strong Greek economic crisis has totally cancelled the movements "to and from" this country. Finally, the seismic events of 2016 negatively influenced the internationalisation activities of DCVM students, especially the incoming ones, considering that the number of outgoing students has remained fairly constant. Therefore, the general situation of the international mobility of the DCVM, after a heavy drop in the period 2014-2016, appears to be clearly recovering, with numbers which, in the AY 2018/19, were the best registered in the entire period 2013-2019. First of all, the increasing trend may be linked to the increase of the number of students enrolled in the first year, assigned by the MUR to the DCVM of UNICAM in the last two AYs. Finally, during the AY 2019/20, there was a sharp decrease in student mobility due to the COVID-19 pandemic that led to the closure of borders.

Comments on Standard 1 related to the COVID-19 pandemic

During the AY 2019/20, the COVID-19 pandemic has led to a deep change in the University's activities. After the lockdown due to the COVID-19 pandemic in Italy (9 March - 18 May 2020), the essential services that required the unavoidable physical presence at the workplace restarted regularly, following very specific procedures to avoid the contagion. Such activities were the following: those in support of the Rector's Office and the General Management, including those that provide for the dissemination of information and communication; the activities in support of the Division for Infrastructures, IT Services and e-Government; the activities in support of the Macro-sector "Teaching Activities, Internationalisation, and Post-Graduate Activities"; the activities of the Schools, necessary in order to guarantee remote teaching, and all other activities referred to in the provisions and indications of the Rector; the activities in support of the Division for Construction, with reference to the reopening and management of construction sites; the activities in support of the Prevention and Protection Service; animal enclosure and animal care services; maintenance and use of complex instruments; maintenance of teaching, scientific and service facilities, as well as other divisions and offices considered essential in order to guarantee the normal functioning of the services. For all the other activities, the Director General, the School Directors, and the Heads of Offices/Divisions/ Departments, have ensured the continuity of the work activities, implementing, where possible, the smart working model, which is considered one of the measures envisaged for the protection of health of employees, and aimed at containing the risk of contagion. All meetings, at all levels, were held and are still being held (during the second pandemic emergency started in November 2020) almost online. Specifically, with regard to the processes related to the QA of the DCVM, the CYCCs meetings were held regularly online with participation of the teachers and the student representatives. The DCVM Council and the SBVM Council were also held regularly online. However, it was not possible to carry out group tutoring meetings with students, which are an

important prerequisite for subsequent CYCCs meetings. Furthermore, UNICAM has provided operational guidelines aimed at increasing the effectiveness of the precautionary containment measures, adopted to counteract the Covid-19 pandemic in the UNICAM workplaces. The security protocol (in English), adopted by UNICAM is available at: <https://www.unicam.it/sites/default/files/documenti-pag/2020/PROTOCOLLO%20SICUREZZA%20ENG.pdf>.

In general, all information, as well as the modalities of carrying out the teaching activities during the COVID-19 pandemic, and the relevant legislation, are available at: <https://www.unicam.it/ateneo/coronavirus-unicam-comunica>.

Suggestions for improvement as regards Standard 1

Heads of the DCs should have more relevance in the decision-making processes.

It is absolutely necessary to find a solution to the undesirable problem of the “irregular” students enrolled from the 6th year onwards.

Re-stimulate the activities of student associations, both as regards the social and the cultural/professional activities.

STANDARD 2 - FINANCES

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

Global financial procedures of the Establishment

According to the General Regulations of the University (Art. 5), the UNICAM Schools, including the SBVM, are responsible for financial management aimed at conducting and coordinating research, training, services, and transfer of competences and knowledge.

The MUR provides the financial maintenance to all Italian public universities, including UNICAM through an institutional fund, called Ordinary Financial Fund (OFF). At UNICAM, the OFF is mainly used for the payment of staff (academic and support staff) salaries, and for the normal functioning of the University.

The SBVM funds are the followings:

- MUR-OFF;
- General Operating Fund (GOF) for everyday functioning, which is an annual allocation from the University to the SBVM, in accordance with University Regulations. Over the last three years, the operating fund assigned from UNICAM to the SBVM amounted to € 62,217.31 in 2017; € 71,908.00 in 2018; and € 96,961.00 in 2019.
- SBVAUT (School of Biosciences and Veterinary Medicine Self-Funding), made up of the percentage that the School retains on research projects (5%), diagnostic and clinical activities (5%), commercial contracts (5%), post-graduate courses (5%), from hospitalisations, and from all those incomes of the School that do not have a specific destination (5%), the use of which is under the responsibility of the Director. The year-end balance of the SBVAUT remains available to the School, and is carried forward to the following year. This fund represents a reserve of the School normally used for extraordinary needs, in accordance with its strategic policies, as indicated in the strategic plan.
- other public funding (research grants from MUR or another Ministry, or a European agency, or a regional fund, such as funds from Marche Region to support the 24-hr service at the VTH);
- revenues from private commissioned research contracts (research funded by foundations or other third parties);
- revenues from diagnostic and clinical activities.

The financial year (FY) starts on the 1st of January and ends on the 31st of December, and is not the same as the AY. According to Italian laws, the financial statements refers to the entire University, and the School has an annual authorised budget and a three-year planning budget.

The annual expenditures and revenues of the SBVM are exhibited in Tables 2.1.1 and 2.1.2, and about 43% of the total expenditures/revenues are attributable to SBVM-bVM, according to the UNICAM data.

Percentage of overhead margin payable to the official authority overseeing the Establishment as regards revenues from services and research grants

The percentage withheld by the University for commercial activities is 12% for both, commercial revenue on contracts, and commercial services for third parties. From research grants, the percentage paid to the University is 8%. For post-graduate training courses (e.g. Masters), the Establishment consigns 13% of the annual tuition fee to the University, with the exception of the Schools of National Specialisation, the tuition fees of which, paid by the students, are fully retained by UNICAM, and only a small percentage (about 12-15%) is returned to the School. The amount

retained by the University is used mostly to support research through the co-financing of doctorates, post-doc grants, etc., to incentivise academic and support staff in supporting and improving commercial activities (diagnostic and clinical services), and at a small extent, to cover general operating expenses.

Annual tuition fee for national and international students

For the AY 2020/21 all *regular* students (enrolled from the 1st to the 5th year), and *irregular* students (those who have not passed all their exams within the prescribed period of time, enrolled in the years from 6th onwards, see Substandard 7.2) pay a first instalment of their fees in the amount of € 140.00 on the account of regional fees for the right to higher education, and € 16.00 for the revenue stamp. The second instalment, to be paid by 1 February 2021, as well as the third instalment, to be paid by 15 April 2021, are customised according to the value of the Equivalent Economic Situation Indicator (ISEE) for the University (ISEE-U). The ISEE-U is a document related to the financial situation of families, in terms of incomes and assets. To obtain the ISEE calculation, it is mandatory to present the Self-Certification (DSU), and the applicants may do it autonomously through the Italian National Institute for Social Security (INPS) website, or by contacting relevant Italian agencies.

The amount of university fees, with reference to the DC in progress, and up to the 1st supplementary year (the 6th year) (see Substandard 7.2), are divided into two groups, depending on the amount of ISEE-U:

1. ISEE-U up to € 40,000.00
2. ISEE-U from € 40,000.01 to € 60,000.00

The amount of university fees for students enrolled beyond the first supplementary year are also divided into two groups, according to the amount of the ISEE-U:

1. ISEE-U up to € 40,000.00
2. ISEE-U from € 40,000.01 to € 60,000.00

The detailed amounts paid by the students belonging to the different groups, and the modalities of their calculation are given in Annex 2.1.

In the absence of an ISEE-U declaration, or when it is greater than € 60,000.00, the amount to be paid is the maximum amount.

For the AY 2020/21, full exemption from the payment of the annual all-inclusive contribution is provided for freshmen and students enrolled in the 1st year, regardless of the presentation of the ISEE-U declaration.

Furthermore, for students residing in one of the municipalities located in the crater hit by the seismic events of August and October 2016, in possession of the documentation attesting the unfitness for use of their homes, the total exemption from the payment of the annual all-inclusive contribution is provided, regardless of the presentation of the ISEE-U.

For international students, the calculation of the personalised annual contribution is based on an ISEE-U equivalent declaration, adopted in cases in which the ISEE-U calculation is not possible. In the absence of the aforementioned documentation, the students will be required to pay the maximum all-inclusive contribution.

For foreign students from outside the European Union or OECD (Organisation for Economic Co-operation and Development) countries, not residing in Italy, for political refugees and beneficiaries of subsidiary protection being unable to apply the ISEE-U calculation used for the Italian students, the contributions are determined according to the following criteria:

- A. students from particularly poor and developing countries: an annual contribution of € 200.00;
- B. students from non-OECD countries, which are not identified by MUR as “particularly poor and developing countries”: an annual contribution of € 300.00.

The taxation relating to the different types of foreign students with a university career exceeding the 1st supplementary year, is the following: type A (particularly poor and developing countries) enrolled in the 2nd and 3rd supplementary year, € 330.00; type A enrolled in the 4th and 5th supplementary year, € 495.00; type B (non-OECD countries) enrolled in the 2nd and 3rd supplementary year, € 396.00; type

B enrolled in the 4th and 5th supplementary year, € 561.00. The regional fees for the right to higher education (€ 140.00) and stamp duty (€ 16) are always added to the contributions described for international students. The enrolment fee for Masters is variable, and is defined in the respective Notices, the minimum being set at € 1,800.00. Tuition fees for Schools of National Specialisation are € 2,500.00 both for the Specialisation in Animal Health, Breeding and Zootechnical Productions, and the Specialisation in Hygiene and Control of Fishery and Aquaculture Products.

Further details are available at: http://www.unicam.it/sites/default/files/documenti-pag/2020/guidagenerale/guida_studente_2novembre_contributi.pdf and at <https://international.unicam.it/admissions/tuition-fees>.

Table 2.1.1. Annual expenditures in € (2017-2019).

Area of expenditure	FY 2017	FY 2018	FY 2019	Mean
Personnel ⁽¹⁾	6,559,226.72	6,508,286.55	6,881,976.35	6,649,829.87
Operating Costs	802,897.57	746,104.32	1,078,772.80	875,924.90
Maintenance costs	48,045.46	57,810.94	55,725.03	53,980.48
Equipment	82,044.92	113,625.88	93,262.04	96,310.95
Total	7,492,574.67	7,425,827.69	8,109,736.22	7,676,046.19

⁽¹⁾ Support staff is not included in the personnel cost (see Substandard 9.2). University organisation considers support staff as integral part of the different areas serving the university schools.

Table 2.1.2. Annual revenues in € (2017-2019).

Revenue source	FY 2017	FY 2018	FY 2019	Mean
Public authorities	5,893,887.50	5,908,600.33	6,294,727.62	6,032,405.15
Tuition fee (standard students) ⁽¹⁾	0	0	0	0
Tuition fee (full-fee students) ⁽²⁾	0	0	0	0
Clinical services	219,408.86	216,903.77	234,365.30	223,559.31
Diagnostic services	61,828.96	49,540.46	82,393.94	64,587.79
Other services	473.32	792.04	429.20	564.85
Research grants	1,259,785.59	847,722.80	1,477,258.93	1,194,922.44
Continuing Education	97,539.34	329,810.00	163,494.25	196,947.86
Donations	4,800.00	0	0	1,600.00
Other sources	124,046.22	174,038.18	167,841.70	155,308.70
Total	7,661,769.79	7,527,407.58	8,420,510.94	7,869,896.10

⁽¹⁾ Tuition fees are collected from the central UNICAM administration and are not due to the SBVM

⁽²⁾ The MUR does not recognise full-fee students as specific category

Table 2.1.3. Annual balance between expenditures and revenues in € (2017-2019).

FY	Total expenditures	Total revenues	Balance ⁽¹⁾
2017	7,492,574.67	7,661,769.79	169,195.12
2018	7,425,827.69	7,527,407.58	101,579.89
2019	8,109,736.22	8,420,510.94	310,774.72

⁽¹⁾ Total revenues minus total expenditures.

Estimation of utilities and other expenditures directly paid by the official authority and not included in the expenditure tables.

Expenditures (in €) incurred by UNICAM in the last three financial years are given in Table 2.1.4.

Table 2.1.4. Expenditures (in €) incurred directly by UNICAM in the financial years 2017-2019.

Utility	FY 2017	FY 2018	FY 2019	Mean
Water	1,463.96	1,795.30	3,961.10	2,406.79
Electricity	88,233.07	69,727.63	84,850.95	80,937.22
Heating	61,396.16	109,337.69	135,458.53	102,064.13
Cleaning service	56,766.28	49,782.99	81,926.88	62,825.38
Maintenance	64,478.41	245,968.24	215,544.20	175,330.28
Total	272,337.88	476,611.85	521,741.66	423,563.80

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

Modus operandi for the financial management of the clinical and field services

Revenues from clinical and field services collected by the Establishment are financially managed through the seven cost centres, as follows: 1) VTH Small Animal Clinical Division (SACD); 2) VTH Large Animal Clinical Division (LACD); 3) Diagnostic Imaging; 4) Carcass Disposal; 5) VTH Diagnostic Pathology; 6) VTH Animal Cancer Registry; 7) VTH Diagnostic Bacteriology and Virology. Each cost centre has a Manager, who is a professor or researcher belonging to the SBVM-bVM, and who directly authorises the use of the funds for the expenditures necessary to maintain the service and improve the teaching activities and the equipment. These funds are also often used to finance research activities by co-financing Ph.D. or post-doctoral fellowships. Once a year, the VTH Assembly (see Substandard 1.2) examines the financial report and collectively discusses possible investments to support teaching, research and clinical activities. According to the VTH Regulations, the VTH Management Committee (VTHMC) draws up and updates the costs of services, and indicates the methods for dividing part of the proceeds from the services among the various service providers, within the limits of the University Administration and Finance Regulations. Revenues from commercial contracts and agreements are approved by the School Council, after meticulous evaluation by the SB, and are managed by the person in charge of the contract.

Degree of autonomy of the Establishment as regards the financial procedures

In accordance with UNICAM General Administration Regulations, the School has financial and accounting autonomy over its own funds, in particular over the SBVAUT fund, and funds deriving from commercial activities or contracts, or research projects. The Principal Investigator of a funded research project, or the person in charge of the contract, independently manages the fund.

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

On-going and planned major investments for developing, improving and/or refurbishing the facilities and the equipment, and origin of the funds

The major investments made and planned by the Establishment are the following:

- Digital x-ray system, financed by third-party donation (€ 50,000.00)
- Ultrasound machine for SACD, financed by third-party donation (€ 50,000.00)
- Ultrasound machine for LACD, financed by third-party donation (€ 50,000.00)
- Laser unit, financed by third-party donation (€ 15,000.00)

- Implementation of flexible video endoscopes, financed by the University (€ 25,0000.00)
- Cell counting device for Clinical Pathology Laboratory, financed by third-party donation (€ 6,000.00)
- Clinical chemistry analyser for Clinical Pathology Laboratory, financed by the SBVM-bVM, from revenues from clinical services (€ 15,000.00)
- Coagulation analyser for Clinical Pathology Laboratory, financed by the SBVM-bVM, from revenues from clinical services (€ 12,000.00)
- Four multi-parameter monitors, financed by third-party donation (€ 10,000.00)
- Six infusion pumps, financed by the SBVM-bVM, from revenues from clinical services (€ 6,000.00)
- Medical cabinets and trolleys for Intensive Care Unit and Hospital Emergency Room, financed by the SBVM-bVM, from revenues from clinical services (€ 5,000.00)
- Orthopaedic drill machine, financed by the SBVM-bVM, from revenues from clinical services (€ 15,000.00)
- Implementation of electronic medical record system, financed by the University (€ 10,000.00)
- Egg incubator MG 100/150 FIEM, financed by research project (€ 650.00)
- Automated cell separator, financed by research project (€ 1,800.00)
- San Sollecito building renovation, financed by third-party donation and by the University (€ 400,000.00)
- New dissection/anatomy room at Block 4, financed by the University (€ 80,000.00)
- New Wildlife Medicine Unit, financed by funds from the School of Specialisation in Animal Health, Breeding and Production (AHBP) (€ 80,0000.00)
- New Exotic Animal Medicine Unit, financed by the SBVM-bVM, from revenues from clinical services (€ 5,000.00)
- New Chemotherapy Unit, financed by the SBVM-bVM, from revenues from clinical services (€ 5,000.00)
- New Rehabilitation and Physiotherapy Unit, financed by funds from the Municipality of Matelica (€ 50,000.00)
- New Clinical Laboratory for Emergency Unit at SACD, financed by the SBVM-bVM, from revenues from clinical services (€ 20,000.00)
- New Intensive Care Hospitalisation Service, financed by the SBVM-bVM, from revenues from clinical services (€ 20,000.00)
- New Digital X-ray System for Emergency Unit at SACD, financed by the SBVM-bVM, from revenues from clinical services, and by the University (€ 30,000.00)
- New building at former warehouse of company SAIPEM (Block 3 building A, see Figure 2 in Introduction, and Annex 4.2), including classrooms, new virology and bacteriology laboratories, and the teaching microbiology laboratory, financed by Mattei Foundation (€ 1,500,000.00)
- New Blood Transfusion Centre, financed by the SBVM-bVM, from revenues from clinical services (€ 10,000).

Expenditures and revenues planned for the next 3 AYs are reported in Table 2.1.5.

Table 2.1.5. Expenditures and revenues planned for the next 3 AYs.

Academic Year	Total expenditures	Total revenues	Balance
2020/21	7,754,169.70	7,754,169.70	0
2021/22	7,436,874.58	7,436,874.58	0
2022/23	7,024,177.36	7,024,177.36	0

How and by whom the expenditures, investments and revenues are decided on, communicated, implemented, assessed, and revised

The Director is the person in charge of the SBVMAUT fund, and directly authorises the expenditures or investments from this fund. Research projects independently proposed by Academic Staff are communicated to the SBVM Council that evaluates and approves the proposed project. If the project is to be funded, the Director communicates it to the entire School Council. The use of specific resources allocated to the School for extraordinary expenses, for example relating to the purchase of scientific equipment, is collectively discussed and approved within the School Board, and then it is brought to the attention of the Council for the approval.

Comments on Standard 2

The School mainly depends on national budget funding, which barely covers salaries and general costs for the DCVM basic maintenance operations. The Marche Region each year allocates a budget to the School for the support of the 24-h services at the VTH. The financial autonomy of the School is limited to the income obtained from the clinical and diagnostic services and from the financed research projects, and most of the revenues coming from commercial activities are reinvested in clinical teaching activities, equipment and research.

In recent years, although significant efforts have been made to expand and improve the diagnostic services, revenues have been strongly affected by both, the economic crisis and the earthquakes. After the earthquake, the University tuition fees were suspended in order to limit any negative repercussions on new enrolments.

The funds obtained from research projects which have also led to the creation of several patents, are significant.

The Mattei Foundation has allocated an important amount of money for the realisation of a new building at former SAIPEM warehouse (see Figure 2 in Introduction (Block 3 - Building A) and Annex 4.2), comprising new classrooms and new virology and bacteriology laboratories, thus greatly improving the services of the SBVM-bVM.

Comments on Standard 2 related to the COVID-19 pandemic

In relation to the COVID-19 emergency, the MUR has introduced “no-tax area” concessions, through which students, who overall meet certain requirements, are exempt from the payment of the all-inclusive annual tuition fees, except for the payment of the fees for the right to higher education, and the stamp duty.

Suggestions for improvement as regards Standard 2

Although it is difficult to make any suggestions regarding finances, the Degree Course in Veterinary Medicine (DCVM) being one of the most expensive, we might suggest some of the following actions: increasing the external visibility to attract private sponsors, introducing incentives for spin-off companies linked to the SBVM, and reducing the percentage withheld by the University for commercial activities.

STANDARD 3 - CURRICULUM

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

The School of Biosciences and Veterinary Medicine (SBVM) at the University of Camerino (UNICAM) is the only establishment in the Marche Region offering a five-year Degree Course in Veterinary Medicine (DCVM). According to Italian laws, upon completion of the DCVM, students are awarded the Degree in Veterinary Medicine. Graduates may not practice as veterinarians in Italy before passing a Professional Qualification Exam (PQE), according to Ministerial Decree of 09 September 1957, as amended. The PQE is held twice a year (usually in June and December). An Examination Committee is appointed by the MUR for every Italian Veterinary Education Establishment. The Committee consists of at least twelve Examiners, divided into four sub-committees: “Clinical Sciences, Preventive Medicine and Avian Pathology”, “Surgery and Reproduction”, “Food inspection” and “Herd Management”. The members of the Examining Committee are selected from among the Academic Staff, Practitioners, and Veterinarians, members of the Italian National Health Service (INHS). Veterinarians may work permanently through the INHS at Public Health State Facilities (“Experimental Zooprophyllaxis Institutes”, the official recognised laboratories for disease control and VPH) or at Local Health Units (LHU).

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

The educational aims of the DCVM are fixed according to the European and Italian laws (EU Directives No. 2005/36/EC and No. 2013/55/EU, and Ministerial Decrees No. 509/1999, No. 270/2004, and Decree of 16 March 2007). The management and the contents of the curriculum are described in Teaching Regulations (TR) of the DCVM, including names of the subjects, numbers of ECTS credits, and hours of theoretical and practical activities for each subject. The last version of TR has been approved by the SBMV Council, by Resolution No. 36 of 08 February 2017, and is published on the UNICAM website (https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/documenti/LM_42_MedVet_REGOLAMENTO_DIDATTICO_ENG_1.pdf).

The curriculum is designed so as to allow the students to acquire the knowledge and skills, as provided by Article 38 of the Directive 2005/36/EC (recognition of professional qualifications). For this purpose, the curriculum involves the study of basic subjects, basic sciences, animal production, food safety and quality, veterinary public health and the *One Health* concept, and of clinical sciences, and it allows for the acquisition of the Day One Competences in the same (Annex 3.1).

The curriculum of the DCVM has been updated according to Ministerial Decree No. 270/2004 and Decree of 16 March 2007. At the time of the last EAEVE visitation in 2011, the first three years of the curriculum were already active. In the AY 2012/13, the old curriculum was completely replaced by the new curriculum. Small changes in the curriculum were introduced in the AY 2017/18, applying to the first four years of the Course. In the AY 2018/19, these changes were extended to the fifth year.

The training of students in VM comprises a total of five years of full-time theoretical and practical study, expressed in ECTS credits, pursuant to Ministerial Decree No. 270/2004. The curriculum

consists of 300 ECTS credits, and the average study load for a full-time student is about 60 ECTS credits per year (Annex 3.1). Each AY is divided into two semesters, accounting for about 30 ECTS credits each. One ECTS credit consists of 25 hours of theoretical and practical training, including self-learning and independent study. In the DCVM at UNICAM, each ECTS credit consists of 10 hours of theoretical and practical training, and 15 hours of unsupervised independent study for most subjects. ECTS credits in some subjects (mainly basic subjects) consist of 7 hours of supervised training activities, and 18 hours of unsupervised independent study per each ECTS credit. At least 20% of teaching hours for basic subjects, and 30% of teaching hours for specific veterinary subjects (basic sciences, except for biochemistry, clinical sciences, animal production, and FSQ/VPH) should be represented by supervised practical work.

Pursuant to applicable Italian laws, prior to graduation, each student must participate in the so-called *Tirocinio*. It is a professional practical training activity, carried out by students both, within and outside the University, under the supervision of Academic Staff members (intramural and extramural activity) and/or practitioners purposely enrolled (extramural activity and EPT). The *Tirocinio* activities are held in Animal Production, Internal Medicine and Preventive Medicine, Food Hygiene/Public Health (Food Inspection), Pathology applied to Food Inspection, and in Surgery and Obstetrics.

Each ECTS credit of the *Tirocinio* corresponds to 25 hours of fully practical activity.

Students obtain ECTS credits after passing the relevant exams and obtaining the grades (Substandard 8.2). The total number of exams is 30, which is the maximum number allowed by Italian laws for a single-cycle five-year degree course, like the DCVM. The final graduation exam and 28 exams are mandatory, and must be taken by all the students; an additional exam grade may be obtained by passing the exams for elective courses, for a total amount of 8 ECTS credits (200 hours) (Annex 3.1). These 8 credits may also be obtained by attending other courses, seminars, and conferences, even those offered by other universities, provided that they issue an official certification of final assessment of attendees, and which must be approved as meeting the training objectives of the DCVM by the Student Career Committee (SCC, see Substandard 1.2) of the DCVM. The achievement of the ECTS credits from *Tirocinio* takes place, for each area, after passing a practical assessment exam at the end of the activity, this obtaining the eligibility (without grades) in that area. In order to enrol in the following year, students must acquire at least the following amount of credits by 10 October each year: 40 ECTS credits for the enrolment in the 2nd year, 70 ECTS credits for the enrolment in the 3rd year, 100 ECTS credits for the enrolment in the 4th year, and 170 ECTS credits for the enrolment in the 5th year.

In order to be allowed to graduate, students must pass the final examination, called “graduation thesis”. The thesis is a written report on a specific topic regarding one of the several subjects addressed during the curricular training. It may be the final report of a small (or a part of a wider) experimental research project, or a state-of-the-art review on a specific topic. Each student must present and discuss their thesis in front of a Committee consisting of a President and 10 teachers from the School. During the preparation of the graduation thesis, students are supported by at least one teacher of the DCVM, so as to guarantee a basic training for research, including the management of bibliographic resources, and a correct scientific and procedural approach to the specific work. The individual work for the preparation of the graduation thesis corresponds to 200 hours (8 ECTS credits) of activity.

Before taking the final examination, each student must complete personal logbooks (one for preclinical, and one for clinical activities), in which the acquisition of Day One Competences is documented and certified (Annex 3.2). The Day One Competences are acquired during practical activities for different courses, and during *Tirocinio*.

Attendance at all courses, including *Tirocinio*, at other practical activities and chosen elective course(s) is mandatory. The attendance is verified by each teacher during the teaching activity in different ways (generally by roll call or a sign-up sheet), pursuant to Italian laws. At the end of the teaching semester, each teacher sends the list of students who attended a number of teaching hours

considered adequate by the teacher (at least 70% of the entire course) to the Teaching Manager. Based on this communication, a certification of attendance is issued by the School Council. Students without the certification of attendance for a specific course may not take the related exam, and have to take the course again.

In addition to the School facilities, several plants, establishments and institutions are involved in curricular activities, allowing students to carry out different types of practical activities (farms, food companies, slaughterhouses, etc.). Finances, facilities and equipment, academic and support staff relating to the Establishment and the DCVM are described in Standards 2, 4 and 9, respectively. The principles, procedures and flows for the management of the DCVM are described in detail in Standards 1, 5 and 9.

At present, the DCVM is coordinated by Professor Anna Rita Loschi, DVM, Ph.D., ECVPH diplomate, and is managed by the Study Programme Administration Officer. The Course Year Coordination Committees (CYCCs), the Teacher/Student Joint Committee (TSJC), the DCVM Review Reporting Committee (DCVMRRC) and the Internal EAEVE Committee, are also involved in the curriculum design and management, and in the QA procedures (Standard 1). Relevant minutes are drawn up for all meetings of the Committees, and the Teaching Staff of the Establishment must provide documentary evidence of teaching activities, and keep the relevant documents. Most documents are digitally managed (e.g. registers of teaching activities, exam lists and minutes, course contents, and relevant learning outcomes, etc.).

Legal constraints imposed on the curriculum by Italian laws, and degree of autonomy for changing the curriculum

The curriculum of the DCVM in Italy is outlined at national level. Since 1989, the enrolment in the DCVM in Italy has been limited to a fixed number of students (“*numerus clausus*”).

Every year, the MUR determines the maximum number of students that can be enrolled by each Italian Veterinary Education Establishment (VEE). The students are selected by means of a national test, which results in a national list of students eligible for the enrolment. Based on the ranking, eligible students may choose a VEE, subject to exhaustion of available places (see Standard 7). As already outlined in the Substandard 3.1, the main legal constraints set by national laws are listed below.

- The DCVM is a single-cycle five-year degree course consisting of 300 ECTS credits (in Italian: *Crediti Formativi Universitari - CFU*), with an average study load of 60 credits per year for a full-time student.
- Each credit comprises 25 hours, including theoretical training (lectures, seminars, etc.), supervised practical training, autonomous study, hours dedicated to individual studying at home. The hours dedicated to autonomous/individual study (not supervised) must account for at least 50% of each credit, unless the activity is highly experimental or practical (e.g. *Tirocinio*). On the basis of these general rules, each Establishment may decide how many hours of each ECTS credit should be devoted to autonomous/individual study, theoretical training, and practical activities.
- Students achieve ECTS credits by passing the exams. The maximum number of exams for the DCVM is 30, and each exam may include one or more subjects. Each Establishment may autonomously set the number of exams needed to graduate in VM.
- Ministerial Decrees No. 270/2004 and No. 155/2007 establish the minimum number and type of Academic Disciplines (AD, Substandard 9.1) for each subject of the curriculum, and the minimum number of credits for the so-called “indispensable” or “qualifying”, i.e. basic subjects (58 credits) and characterising subjects (130 credits). Apart from these indispensable subjects, according to TR of each VEE, a DCVM must include ECTS credits for “similar” or “integrative” subjects, “eligible” subjects, subject(s) devoted to the acquisition of foreign language, *Tirocinio*, and final (graduation) exam, to reach the total number of 300 credits.
- The curriculum proposed by the Establishment has to be approved by the MUR through the Italian National University Council (INUC), which may request changes in the curriculum before the

approval. After the approval, the Establishment may change the curriculum according to national laws. Only major changes need to be approved by the MUR, whereas minor changes may be approved directly by the University.

Identification and correction of curricular overlaps, redundancies, omissions, and lack of consistency, transversality, and/or integration of the curriculum

The overall quality of the courses, and of the curriculum, are identified at several levels, using both, bottom-up and top-down approaches. Curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum, are identified mainly by the questionnaires for the evaluation of teaching activities, and during the periodic CYCC meetings. Detailed descriptions of questionnaires, and the CYCCs, are given in Substandards 1.2, 1.6 and 9.5. In a nutshell, at the end of each semester, students must fill in an evaluation questionnaire for each course (the English version is included in Annex 1.2), and may not take an exam without filling in the relevant questionnaire. New questionnaires (in Italian and English) have been introduced in the AY 2020/21 (https://www.unicam.it/sites/default/files/documenti-pag/2020/questionario%20didattica%202020_21_ITA_EN.pdf). At the end of each semester, the UNICAM Quality Office send the results of the questionnaires for each course to the Coordinator of the DCVM, which then forwards the results to the Coordinator of each CYCC. Remarks with a mean value below the cut-off value of 3 are discussed during the CYCC meetings and reported in the meeting minutes (see Substandard 9.5). On the basis of the severity of the remarks, and the range of the changes required, overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration, the curriculum is corrected as follows. Minor changes are described in the meeting minutes and are adopted immediately after discussing them in the CYCC or TSJC meetings (e.g. single course contents, single course learning outcomes, coordination of the practical activity, etc.). The meeting minutes are sent to the Study Programme Administration Officer and to the Head of the DCVM. If more substantial changes are required (e.g. minor revisions of the curriculum and of the learning outcomes), proposals are discussed by the DCVM Council, by the DCVMRRC, and by the TSJC. Final proposals are then discussed by the SBVM Council, which must officially approve every change. In case of major changes of the curriculum and course contents, the Director of the SBVM (upon proposal of the Head of the DCVM) submits a draft of new TR to the SBVM Council. The draft must be prepared taking into account the national laws and the suggestions of the TSJC and other Committees of the School (see Substandard 1.2). The SBVM Council then examines the draft and approves the final document, which is submitted to the University Senate (US). Upon approval by the US, the document is sent to the MUR for the final approval (through the INUC, as described above).

Table 3.1.1. Curriculum hours for each AY attended by each student.

Academic years	Lectures	Seminars	Supervised self learning	Laboratory and desk-based work	Non-clinical animal work	Clinical animal work	Others	Total
Year 1	364	7	13	70	19	0	0	473
Year 2	414	6	8	62	140	5	12 ⁽¹⁾	647
Year 3	393	24	0	112	12	29	0	570
Year 4	395	2	0	30	243	70	0	740
Year 5 ⁽²⁾	166	8	0	10	0	706	0	890
Total	1732	47	21	284	414	810	12	3320

⁽¹⁾ Herd visits.

⁽²⁾ The 200 hours spent by each student for preparing the graduation thesis and for the final exam are not included in the Table.

Table 3.1.2. Curriculum hours employed by each student.

SUBJECTS	A	B	C	D	E	F	G	Total
Basic Subjects	141	2	8	24	0	0	0	175
<i>Medical Physics</i>	12			2				14
<i>Chemistry (Inorganic and Organic Sections)</i>	34			10				44
<i>Animal Biology, Zoology and Cell Biology</i>	46		8	4				58
<i>Feed Plant Biology and Toxic Plants</i>	20	2						22
<i>Biomedical Statistics</i>	29			8				37
Specific Veterinary Subjects								
Basic Sciences	628	20	13	137	44	8	0	850
<i>Anatomy, Histology and Embryology</i>	155	5	13	33	20			226
<i>Physiology</i>	64	3			12			79
<i>Biochemistry</i>	61			12				73
<i>General and Molecular Genetics</i>	20			6				26
<i>Pharmacology, Pharmacy and Pharmacotherapy</i>	45			19	4			68
<i>Pathology</i>	53	4		15	2			74
<i>Toxicology</i>	21			2				23
<i>Parasitology</i>	54	5		15	5			79
<i>Microbiology</i>	30			12				42
<i>Immunology</i>	8			3				11
<i>Epidemiology</i>	20			7		1		28
<i>Information Literacy and Data Management</i>	5			1				6
<i>Professional Ethics and Communication</i>	8							8
<i>Animal Health Economics and Practice Management</i>	1					1		2
<i>Animal Ethology</i>	22	3			1	5		31
<i>Animal Welfare</i>	12					1		13
<i>Animal Nutrition</i>	49			12				61

Legend - A: Lectures; B: Seminars; C: Supervised Self-Learning; D: Laboratory and Desk-Based Work, E: Non-Clinical Animal Work; F: Clinical Animal Work; G: Others (Specify).

Table 3.1.2. Curriculum hours employed by each student (continued).

SUBJECTS	A	B	C	D	E	F	G	Total
<i>Clinical Sciences</i>	540	16	0	44	23	802	0	1425
<i>Obstetrics, Reproduction and Reproductive Disorders</i>	123				14	10		147
<i>Diagnostic Pathology</i>	94			24		24		142
<i>Medicine</i>	78	3		3		27		111
<i>Surgery</i>	74	8		1	9	33		125
<i>Anaesthesiology</i>	12	2		2		4		20
<i>Clinical Practical Training in Common Animal Species</i>						651		651
<i>Preventive Medicine</i>	18	3		4		1		26
<i>Diagnostic Imaging</i>	52			10		12		74
<i>Therapy in Common Animal Species</i>	2							2
<i>Propaedeutics of Common Animal Species</i>	87					40		127
<i>Animal Production</i>	137	0	0	22	126	0	12⁽¹⁾	297
<i>Animal Production, including Breeding, Husbandry and Economics</i>	132			22	126		12	292
<i>Herd Health Management</i>	5							5
<i>Food Safety and Quality, Veterinary Public Health and the One Health Concept</i>	226	9	0	57	221	0	0	513
<i>Veterinary Legislation including Official Controls and Regulatory Veterinary Services, Forensic Veterinary Medicine and Certification</i>	88	3		18				109
<i>Control of Food, Feed and Animal y-Products</i>	50			14	221			285
<i>Zoonoses</i>	37	6		4				47
<i>Food Hygiene and Food Microbiology</i>	24			13				37
<i>Food Technology</i>	27			8				35
Total	1672⁽²⁾	47	21	284	414	810	12	3260
	A + B + C = 1740			D + E + F = 1508			12	3260

Legend - A: Lectures; B: Seminars; C: Supervised Self-Learning; D: Laboratory and Desk-Based Work, E: Non-Clinical Animal Work; F: Clinical Animal Work; G: Others (Specify).

⁽¹⁾ Herd visits.

⁽²⁾ Additional 60 hours of English lessons (A) are taken by each student. The 200 hours spent by each student for preparing the graduation thesis and for the final exam are not included in the Table.

Table 3.1.3. Practical Rotations under the supervision of Academic Staff (excluding EPT).

Types	List of practical rotations (Disciplines/Species)	Duration in hours (weeks) ⁽¹⁾	Year of programme
Intramural clinics (VTH)	Intensive Weeks (internal medicine, emergency, surgery, anesthesiology, diagnostic imaging) <i>Species: companion animals (dogs, cats, exotics and horses) and farm animals (cows, pigs, sheep)</i>	50 ⁽²⁾ (2 weeks)	5 th
	Rotations (internal medicine, emergency, surgery, anesthesiology, diagnostic imaging) <i>Species: companion animals (dogs, cats, exotics and horses) and farm animals (cows, pigs, sheep)</i>	204 ⁽³⁾	3 rd , 4 th , 5 th
Ambulatory clinics Herd Health Management (extramural)	<i>Species: farm animals and some companion animals</i>	122,5 ⁽²⁾ (4,9 weeks)	5 th
FSQ & VPH	Food Inspection	65	3 rd , 4 th
	Infectious diseases and prophylaxis	28 ⁽²⁾	5 th
	Animal production	35	2 nd
Electives	-	-	-
Other	-	-	-

⁽¹⁾ Data are reported as hours and not weeks because some activities are not on a continuous basis (for example Rotations are spread over three years of study).

⁽²⁾ During the second semester of 5th year students carry out 10 intensive weeks from March to May; each week consists of about 25 hours of activity; two weeks are spent at the VTH, one week is dedicated to infectious diseases, prophylaxis and parasitology; during the other seven weeks students carry out extramural activities (70%) and EPT (30%) especially on farm animals.

⁽³⁾ During Rotations students carry out almost 17 days of practical activity, 12 hours each day.

Table 3.1.4. Curriculum hours employed by each student for Electives (last two AYs).

Electives	A	B	C	D	E	F	G	Total
<i>Oncology and Cardiology in Veterinary Medicine</i>	58	3	3	4		12		80
<i>Veterinary Oncology</i>	56			15		9		80
<i>Advanced Diagnostics</i>	56			2	2	20		80
<i>Odonto-Stomatology and Maxillofacial Surgery in domestic animals</i>	56			3		21		80

Legend - A: Lectures; B: Seminars; C: Supervised Self-Learning; D: Laboratory and Desk-Based Work, E: Non-Clinical Animal Work; F: Clinical Animal Work; G: Others (Specify).

Table 3.1.5. Optional courses proposed to students (not mandatory)
Not applicable.

Core clinical exercises / practical work / seminars prior to the start of clinical rotations

Imparting clinical knowledge, skills and competences is pursued throughout the entire curriculum.

All practical courses do this gradually, starting with the first year of the Course.

Moreover, during the third year of the Course, students start a training activity at the VTH, they are supported by the 4th and 5th-year students for night-time and holiday rotations. During this practical activity (approximately 17 shifts of 12 hours), they become familiar with some manual clinical skills. These manual skills will then be improved and implemented during the following years (in the fourth and fifth year).

Furthermore, during the third year of the Course, students carry out practical activities concerning diagnostic pathology. They spent 7 hours for 5 consecutive days (35 hours in total in small groups (3-6 students) acquiring the basic manual skills needed to prepare a cytological, histological sample, and also to perform necropsies.

The Day One Competences that students must acquire during these activities are listed in the personal Logbooks, reported in Annex 3.2 as an unofficial English version.

Description of the core clinical rotations and emergency services, and direct involvement of undergraduate students

Besides practical activities carried out during teaching courses in the clinical area, two types of clinical rotations are performed:

- *clinical rotation at the VTH* during the third, fourth and fifth year, where students participate in the clinical activity during night and holiday shifts. Each student carries out about 17 shifts a year, during nights and holidays, in which he/she participates in the emergency services of the VTH, and in the treatment of hospitalised patients. During these activities, there are just two students per shift: one third-year student, and one fourth or fifth-year student.
- *intensive weeks*, envisaged for the fifth-year students (second semester), during which intramural and extramural activities, ambulatory clinics, and EPT, are performed.

As regards the intensive weeks, at the beginning of the second semester (March), the fifth-year students are divided into 5 groups (each group made up of 3-6 students), and from March to May, they rotate for 10 weeks, during which they perform clinical activities on pets and large animals at the VTH, and on dogs, pigs, bovines, horses, small ruminants, and poultry on external locations (as extramural activities and EPT). Practical activities are carried out from Monday to Friday, between 9 a.m. and 6 p.m., for 10 weeks. Sometimes, additional activities (not included in the calculation) are performed even on Saturdays and Sundays.

The students at the VTH admit the patient, participate in carrying out the first examination of the patient by collecting the medical history, the reports and the data collected during the general physical examination. During diagnostic activities, they actively participate in the collection of samples (blood, etc.), positioning the patient for diagnostic images, setting up the device (radiological, ultrasound, CT and MRI) and drafting a report. During surgical activities, they participate in surgery, collaborating in the preparation of the patient (shearing and scrub), of anaesthesia (vein catheter insertion, intubation, protocol setting, etc.), of the surgeon (dressing), and of surgery (choice of tools and equipment necessary for that specific surgery). In addition, they participate as the 3rd surgeon in surgeries.

They participate in morning rounds of hospitalised patients and, at the end of the day, they discuss the clinical cases seen with the referring teacher.

The students also collaborate in the management of hospitalised patients, establishing the correct therapy, nutrition and monitoring of major organ functions.

All intramural and extramural activities are carried out under the supervision of the Academic staff.

Teaching in slaughterhouses and on premises for the production, processing, distribution/sale, or consumption of food of animal origin

Apart from some practical activities (4 hours) in microbiological analyses of different types of food of animal origin (milk, meat, etc.), performed by students within the course of Microbiology during the 2nd year of the DCVM, practical activity in Food Inspection consists in the following:

- practical work during the Food Hygiene and Technology and of Food Control and Certification courses (63 hours)
- *Tirocinio* in Food Inspection (200 hours).

During the practical activities in Food Hygiene and Technology, students are divided into small groups of maximum 7 students. Eighteen hours (in total) are spent drawing up the HACCP plans for the production of processed food of animal origin. Each group chooses a different food product, fills in a form on the product description, and draws up a flow chart of the process. During 5 hours of extramural activity, students visit the relevant food establishments to check the flow chart and collect the information for drafting the HACCP plan (e.g. checking the lists, plans, pictures, prerequisites, etc.). The HACCP plan is presented and discussed by means of a PowerPoint presentation, in front of the teacher, the class, other teachers belonging to the Food Inspection area, and veterinarians members of the National Health Service. Teachers of other disciplines potentially involved are also invited to attend the presentations in order to support the interdisciplinary character of activities. Three hours of practical activity are spent in the food chemistry laboratory, where students evaluate certain parameters influencing the shelf-life of food, such as pH, Aw, and NaCl percentage. Every student analyses one fresh or processed product of animal origin. The results are collectively discussed under the teacher's supervision.

In order to allow students to work in more comfortable places, to avoid unnecessary movements and to optimise the time, some of the activities which could be performed extramurally, are carried out intramurally. For this purpose, organs, fish, crustaceans and food of animal origin are taken from slaughterhouses and grocery stores, and are brought to the University laboratories/teaching rooms. For practical activities within the course of Food Control and Certification, the students are divided into groups of maximum 10 students, who are further divided into smaller subgroups (2 or 3 students each) at the time of the activities. Seven hours are spent analysing case studies on food labelling, 6 hours inspecting meat products collected from the market, 8 hours evaluating fish and crustacean freshness. These practical activities are all divided in three steps: production of a written report on the activity, presentation of the report in front of the teacher and the class, and final discussion about the results presented by each group. About 10 hours are spent inspecting organs with lesions relevant for food safety (e.g. zoonoses, etc.): students should be able to recognise the organ, perform the diagnosis or suggest diagnostic tests to confirm the suspicion, and make decisions on the basis of the food legislation. During this activity, students fill in a form provided by the teacher. About 4 hours are spent observing histological sections from organs with lesions relevant for food safety (e.g. zoonoses, illegally hormone-treated meat, etc.), recognising the origin of the samples, performing the diagnosis and applying the proper food legislation, by filling in a specific form provided by the teacher. Three hours of extramural activity consist in organ inspection at a slaughterhouse. Seven hours of extramural activities are spent in domestic ungulate and poultry slaughterhouses performing different activities, such as animal welfare evaluation, familiarisation with accompanying documents, and inspection of premises.

The *Tirocinio* activity in Food Inspection consists of 200 hours of practical activity, divided into sets of 50 hours each. Fifty hours are spent in slaughterhouses, 50 in a meat processing plant, 50 in a cheese factory, and 50 in a plant of student's choice. For each set, the teacher arranges a specific programme called "*Progetto formativo*" (Training Project), where all the activities to be performed by students are listed. The 50 hours performed in a slaughterhouse of student's choice, among those under agreement with UNICAM, are carried out according to the training project drafted by the teacher, and together with an Official Veterinarian. The activities that must be performed include the following: control of accompanying documents of animals, *ante-mortem* inspection methodology, evaluation of animal welfare during discharge and stunning, *port-mortem* inspection methodology, sampling for BSE test (where requested), official sampling procedures, preparation of an audit plan,

performing of a post-mortem inspection. All these activities are aimed at improving and certifying the relevant Day One Competences. At the end of the activity, the Official Veterinarian certifies if and how the student performed all the activities described in the Training Project and, depending on the evaluation, the Day One Competences are certified by the teacher on the student's personal logbook of preclinical activities. These 50 hours are considered as extramural activities, and are aimed at improving and certifying, by the teacher, the acquisition of the relevant Day One Competences. The other three sets of 50 hours each (150 hours) are spent carrying out the relevant training projects drafted by the teacher, each supervised by a Company's Tutor in plants chosen by the students, from among those under agreement with UNICAM. At the end of the activity, each Tutor certifies the course of the relevant activity according to the training project. These 150 hours are considered as EPT, aimed at improving certain knowledge, skills and competences about processing technologies, prerequisite checking, hazard and CCP identification (including monitoring, critical limits, and corrective measures), and official control procedures. The 200 hours of *Tirocinio* are carried out outside the lecture schedules. The teaching slaughterhouse located in Matelica has been built and could be available for training purposes, but it was never put in operation because of the severe economic crisis, and because no company available to manage the plant was found. Furthermore, the slaughterhouse closest to the SBVM-bVM, located in Camerino, was seriously damaged during the earthquakes of 2016 and 2017. For this reason, students have to carry out their practical activities in slaughterhouses quite far from the VEE. However, the municipal slaughterhouse in Camerino should be operative again at the beginning of 2021.

Selection procedures for the Electives chosen by the students, and the degree of free choice

No specific tracks are provided in the DCVM at UNICAM. However, in addition to the courses in Internal Medicine, Therapy, Forensic Medicine, and Surgery and Anaesthesiology, during the first semester of the fifth year, each student may choose one or more optional courses. The number of optional courses offered is low, due to the very high workload of the teaching staff. Thus, few subjects with a strict clinical application character are proposed. Furthermore, according to Italian laws, ECTS credits for elective subjects may also be obtained from other degree courses, provided that the topic is coherent with the training objectives of the DCVM. Such a coherence is evaluated by a Student Career Matter Committee (see Substandard 1.2). Generally, the students choose equally among the offered courses, but if not, the student's wishes are respected, due to the overall low number of students (about 30) enrolled in the fifth year. On the contrary, if an elective course offered by DCVM is chosen by less than 5 students, it is not activated.

Procedures to ascertain the achievement of core practical/clinical activities by all students

The achievement of each core practical/clinical activity is ensured, first of all, by the assessment of the student's attendance and participation in the relevant training course, *Tirocinio*, clinical rotations, ambulatory clinics, etc. Among these activities, listed in the respective programmes and learning outcomes, the Day One Competences have been defined by the internal EAEVE Committee based on those listed in the ESEVT SOP, and approved by the DCVM Council. These Day One Competences are listed in two different logbooks (one for pre-clinical, and one for clinical activities), and their achievement is certified by the relevant teacher during the practical activity of the teaching course, clinical rotations, and ambulatory clinical services, depending on where such activities are carried out and verified. The list of Day One Competences is also published on the SBVM-bVM website (<https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria>)

3.2 Each study programme provided by the Establishment must be competency-based and designed so that it meets the objectives set for it, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and must refer to the correct level of the national qualifications framework

for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

The Establishment must provide proof of a QA system that promotes and monitors the presence of an academic environment highly conducive to learning including self-learning. Details of the type, provision and updating of appropriate learning opportunities for the students must be clearly described, as well as the involvement of students.

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

Assurance of achievement of study programme objectives, and promotion of academic environment conducive to learning

The objectives of the study programme, the learning outcomes, and the qualification resulting from the programme, are given in the DCVM Annual Factsheet (SUA-CdS), available *in English* on the UNICAM website:

(https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=704483CC7E88D948D6043789A35F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017),

and *in Italian* on the MUR website (<https://www.universitaly.it/index.php/scheda/sua/47302#3>).

The qualification resulting from the programme is in line with European and Italian laws mentioned above (see Substandard 3.1). The study programme allows students to acquire competences by applying knowledge and understanding, making judgements and using professional communication. Students' competences are evaluated during exams, especially in the area of clinical sciences. Students' performances are monitored through procedures listed in the Quality Assurance System (QAS), described in Substandard 1.4. These data are evaluated by the DCVMRRC and the TSJC in order to detect learning problems which, if present, are also discussed in the CYCC meetings. Changes to improve an environment highly conducive to learning are managed in a way similar to that for the changes of the curriculum (see Substandard 1.2, 1.6, 3.1, and 9.5). The DCVM Council, the DCVMRRC, and the TSJC verify if the study programmes meet the objectives (e.g. by checking the list of the Day One Competences, the contents of the course programmes, by checking the contents of the curriculum map [see below], etc.). On the basis of these reviews, and on the basis of the results of student-evaluation questionnaires discussed during the CYCC meetings, the programmes of one or more courses may rapidly undergo minor changes in order to meet the objectives. In case of major critical issues, or any need for major changes, the changes are carried out as described in Substandard 3.1.

Apart from theoretical activities, learning opportunities include problem-based learning and several hours of practical training, which are performed in small groups. As previously mentioned, the attendance at curricular activities is mandatory. Such mandatory character, together with the low number of students enrolled in the DCVM, and the number of hours employed in practical activities, promotes a close contact between students and teachers, thus creating an environment conducive to learning. Some supervised self-learning activities are scheduled in different subjects; furthermore, students are encouraged to self-schedule the activities. According to University Regulations, each teaching course must offer at least 8 exam sessions every year. The exam calendar is published before the start of the AY, and students are encouraged to schedule the exams by themselves. Exam sessions are public, allowing students to attend the exams taken by other students, in order to self-evaluate their competences. Exams of the last years are often problem-centred. If necessary, students may discuss the unclear topics with the teachers, during the consulting hours (the schedule is published on the website, and may also be found on the notice board). Students may access the computers, library resources (books and electronic scientific journals), archives of images and diagnostic services, VTH information system (ARGO, under upgrading), microscopes and slides (histology, histopathology) for independent study. The availability of a 24-h VTH allows for a strong

involvement of students in clinical practice and discussion of cases. The close proximity of students during the clinical rotations at the VTH with fellows and postgraduate students at the School of Specialisation in Animal Health, some of which graduated in different Italian universities and are working in different areas of the veterinary profession, encourages the sharing of knowledge, competences and experiences between students and veterinarians. Furthermore, lifelong learning is encouraged by inviting the DCVM to attend workshops, seminars or congresses organised for the purposes of continuing education of practitioners, obtaining additional ECTS credits.

3.3 Learning outcomes of the programme must:

- ensure the effective alignment of all contents, teaching, learning, and assessment activities of the degree programme so as 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 members and students;
- be regularly reviewed, managed, and updated, in order to ensure that they remain relevant, adequate, and are effectively achieved.

Educational aims and strategy to achieve the learning outcomes

Educational aims are determined in accordance with European Directive 2005/36/EC (with special reference to Section 5, Articles 38 and 39, and Annex V.4), as amended, and pursuant to Italian laws mentioned above (Substandard 3.1). Educational aims and learning outcomes are described in the SUA-CdS (<https://www.universitaly.it/index.php/scheda/sua/47302#3>). The list of the Day One Competences that students must achieve before graduation is published on the SBVM-bVM webpage at <https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria/day-one-competences> in the form of preclinical and clinical personal Logbooks, and in Annex 3.2, where an unofficial English version of the students' personal Logbooks is reported.

Each course should contribute to the achievement of the relevant learning outcomes, which are periodically revised, in accordance with the Dublin Descriptors (Knowledge and understanding; Applying knowledge and understanding; Making judgements; Communication skills; Learning skills). The learning outcomes of each course are published on the UNICAM webpage, at: (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=704483CC7E88D948D6043789A35F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017). The learning outcomes of each course of the DCVM, and their contribution to the general learning outcomes of the DCVM, are listed in the curriculum map, in accordance with the Dublin Descriptors. The contents of each course, and the suggested textbooks and scholarly articles, are also listed and published on the same websites. At the beginning of each course, teachers describe the course contents, the learning outcomes, and the ways in which students may achieve them. All these activities, carried out by the teachers, are included among the items evaluated by the students in evaluation questionnaires. A problem-based approach is adopted in all professional subjects during lectures and exams. Learning outcomes of basic subjects and sciences must support students to understand professional subjects and to achieve the learning outcomes and the Day One Competences.

How the VEE ensures that the learning outcomes fit the ESEVT Day One Competences

The School and the University are very attentive to the preparation of students. At this University, each School has Teaching Committees and a Degree Course Review Reporting Committee, which are responsible for verifying the consistency between the study programme and the educational objectives achieved by the students. In particular, the School of Biosciences and Veterinary Medicine

has an internal EAEVE commission, which also has the purpose of ensuring that the learning outcomes fit the ESEVT Day One Competences.

Over the years, Day One Competences have evolved, in accordance with the ESEVT SOPs, and, in fact, the logbooks in which the students certify the acquisition of competences have been modified and updated several times.

Day One Competences, based on those listed by ESEVT, are also considered learning outcomes. Such competences have been designed by the Internal EAEVE Committee by merging the minimum requirements suggested by the ESEVT SOP with the previous Day One Skills and the main competences required to graduate in VM at UNICAM, with attention to the outcomes envisaged within the Steering Working Group (see Standard 1.2).

Decision, communication, assessment and revision of the learning outcomes

The general learning outcomes of the DCVM listed in the SUA-CdS are outlined by the Head of the DCVM, assisted by the five coordinators of the CYCCs and by the DCVMRRC, with the help of the Internal EAEVE Committee, which acts as an advisory body. The DCVMRRC draws up the final document, which is submitted to the TSJC and to the UEU for revision. The final document is officially approved by the School Council. Students are broadly represented in all these committees/bodies. Once approved, the learning outcomes are published on the UNICAM website and on the University website, as mentioned above. Each teacher is responsible for outlining, defining, and revising the learning outcomes of their specific course, according to the general DCVM learning outcomes, and submitted to their periodic review. Teachers publish the learning outcomes of their courses on the DCVM website (see Standard 8). As mentioned above, at the beginning of the courses, teachers must inform the students about the learning outcomes of their courses, and also, how the students will be evaluated during the exams. In order to continuously enhance and update the quality of the DCVM, monitoring and revision of the learning outcomes are periodically carried out by the DCVMRRC (learning outcomes of the DCVM), and by teachers (specific learning outcomes of the courses).

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

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

Decision, communication, implementation, assessment, and revision of the core curriculum

Every year, the TSJC collects and evaluates suggestions aimed at assessing and improving the quality of the curriculum submitted by the CYCCs, the DCVM Council, and the DCVMRRC, in order to draft relevant proposals to be submitted to the School Council for the approval. Limited changes to the curriculum are carried out as described above. When a deep revision of the core curriculum is required, a specific commission (named “the New Curriculum Committee”) is appointed to study the issues in detail and make a proposal. Usually, this Committee includes the Head of the DCVM, the Study Programme Administration Officer, one member of each AD or ARF of profession-related

subjects, and a representative for basic subjects (if involved in the changes). The aim of this Committee is to design a draft of the core curriculum on the basis of national laws and of the suggestions made by different committees (DCVMRRC, internal EAEVE Committee, CYCCs, DCVM Council, SWG). The draft of the core curriculum is submitted to the TSJC for further discussion. Changes proposed by the TSJC are discussed again by the New Curriculum Committee. When the final draft of the new curriculum is defined, it is discussed by the Council of the SBVM. Representatives of students are members of all committees involved in the design and approval of the new core curriculum, with the exception of the New Curriculum Committee. Once approved, the new core curriculum is submitted to the MUR for final approval through the INUC. If the Ministry requests any changes, the procedure is repeated until the full approval is obtained. Acknowledge of the final approval by the MUR is communicated to the staff members, students and stakeholders, by the School Director. The approved core curriculum is published on the UNICAM website, at: (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=08B76C089916AE55D029B0F0110E2580.esse3-unicam-prod-02?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017) and the University website, at: (<https://www.universitaly.it/index.php/scheda/sua/44823#3>). Printed copies are affixed to the walls at the premises of the Faculty of Veterinary Medicine. The new curriculum is presented to the students during a specific group tutoring meeting, and during lessons of each single subject by the relevant teacher at the beginning of the teaching course. The new curriculum is then published on the DCVM website.

Before the beginning of the next year, each teacher publishes the contents of his/her course on the UNICAM website in Italian: (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=8410B8226E87183694FEFAD7C749CAA1.esse3-unicam-prod-01?cod_lingua=ita&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMICO=2017), and in English: (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=704483CC7E88D948D6043789A35F3F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017).

Periodic monitoring and revision of the core curriculum is carried out according to the needs that arise from time to time.

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

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

Organisation of the EPT and how it complements the academic clinical training

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

Fields of Practice	Minimum duration (hours)	Year of programme
Production animals (pre-clinical)	90 ⁽¹⁾	2 nd
Companion animals (pre-clinical)	0	-
Production animals (clinical)	52 ⁽²⁾	5 th
Companion animals (clinical)	0 ⁽³⁾	-
FSQ & VPH	Food inspection	3 rd , 4 th
	Infectious diseases and prophylaxis	5 th

⁽¹⁾ During the 2nd year student spent 125 hours in preclinical activity (90h are EPT, 35 h are extramural).

⁽²⁾ During the second semester of 5th year students carry out 10 intensive weeks from March to May; each week consists of about 25 hours of activity; two weeks are spent at the VTH, one week is dedicated to infectious diseases, prophylaxis and parasitology; during the other seven weeks students carry out extramural activities (70%) and EPT (30%) especially on farm animals.

⁽³⁾ The SACD offers a wide range of patients and clinical expertises: more than 25 veterinary doctors, academic and non-academic, work there and are able to provide students with all the necessary know-how for their clinical training; for this reason a large part of teaching activities on pets are carried out at the VTH and no EPT are provided.

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

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

How the EPT providers are linked to the Establishment, how they assess the students and provide feedback to the Establishment

The External Practical Training is supervised by the same contract practitioners who carry out part of the extramural activities, according to their specific competences. These practitioners sign a contract with the School, and are paid and trained to carry out extramural work, during which students perform practical activities, according to specific training projects (previously called “Progetti formativi”), aimed at acquiring some of the Day One Competences listed in the student’s personal logbook for clinical activities. Furthermore, they also supervise EPT, which consists in deepening practical aspects of the profession, which have already been addressed during the course of study. These EPT activities carried out by the students are certified by the EPT provider, who also assess students’ activities.

Extramural activities and EPT are carried out by practitioners under the same contract, the copy of which is included in Annex 9.4.

Name of the academic staff member responsible for the supervision of the EPT activities

Prof. Fulvio Laus

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

Involvement of students in the preparation, recording, and assessment of their EPT

Students are made aware of their shifts programme with the different EPT providers, personally drafted by the supervisor of the EPT providers. Students are equipped with suitable footwear and clothing, and actively participate in the activities carried out by the EPT provider. At the end of the day, they enter a descriptive log of their activities in their logbook. The EPT provider certifies that they have carried out the practical activities. Students also fill in a form, in which EPT activity provided by each practitioner is assessed.

Description of the complaint process set up concerning EPT

In the forms used by students to assess the EPT activities, complaints may be submitted, as well.

Comments on Standard 3

The procedures carried out during the EPT activities could be better differentiated in order to be better understood by the students. One possibility could be the implementation of a specific logbook for EPT activities.

On the basis of suggestions given by UNICAM, only a few elective courses are available because students may obtain the 8 ECTS credits by passing exams of other courses taught in UNICAM and considered consistent with the learning outcomes of the DCVM. Furthermore, students may obtain up to 8 ECTS by attending workshops, seminars or congresses organised for continuing education of practitioners, with a final test. These activities must be first approved by the SBVM Council, if considered consistent and suitable for an undergraduate student's training path. Certificates obtained by students are evaluated by the Student Career Committee (SCC, see Substandard 1.2), and then officially approved by the SBVM Council.

Some external practical activities have been influenced by a series of difficulties due first to the economic crisis, then to the earthquakes in 2016-2017, and finally to the COVID-19 pandemic (see specific comments). Several farms and food producing companies have been closed, the human and animal population living in this geographic area has been diminishing in the last years, also because the post-earthquake delocalisation.

Comments on Standard 3 related to the COVID-19 pandemic

According to national laws, face-to-face courses have been replaced with online courses from March to June 2020. Synchronous online lessons have been delivered similarly as face-to-face lessons. Video recordings of lessons can be made available to students on the web platform. When possible, practical work was adapted to be carried out online (e.g. desk- and computer-based work). Some laboratory work, non-clinical animal work, clinical animal work and EPT have been suspended, according to national laws, and rescheduled for after the end of the lockdown. The practical work on animal resources and teaching material of animal origin was carried out according to the guidelines of the Italian Federation of Professional Veterinary Associations (http://www.fnovi.it/sites/default/files/MdS_LINEE_GUIDA_COVID_PET_aprile2020.pdf). Urgent research activities related to graduation theses have been carried out following appropriate safety protocols. Final examinations and discussions of graduation theses have been carried out online and an additional online final graduation exam session for the AY 2018/19 was added in June 2020 by the Ministry (MUR) to permit students to sit the PQE session in June 2020. All face-to-face services have been replaced with online services (e.g. tutorship and teachers' consulting hours, administrative and library services, etc.). Students have been invited to participate in life-long learning activities on SARS-CoV-2, organised for postgraduate students enrolled in the School of National Specialisation. The number of ECTS credits needed to be enrolled in the 5th year (see Substandards 3.1 and 7.5) has been decreased from 170 to 162, due to the delay in the conduct of

Tirocinio in Food Inspection. It must be pointed out that also for the AY 2019/20 an additional final graduation exam session was added in June 2021 by the MUR.

Suggestions for improvement as regards Standard 3

Most of the websites content should be published also in English, in order to attract more international students. Regardless of the fact that teachers publish the aims and programmes of their courses in Italian and in English, most general information (e.g. the course guide published on University website, and University Regulations published on the School website) are published only in Italian language.

Practical activity, especially in the 1st year of the curriculum, could be increased, if adequate premises and funds are allocated. The availability of larger laboratories and ad hoc economic resources would help the organisation of more practical activities in laboratory, and non-clinical animal work.

STANDARD 4 - FACILITIES AND EQUIPMENT

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

Description of the location and organisation of the facilities used for the veterinary curriculum

The School of Biosciences and Veterinary Medicine (SBMV) is divided into 4 blocks (Block 1, 2, 3 and 4), as shown in the Introduction section (Figure 2). The aerial views and the plans of each Block are included in Annex 4.1. These Blocks are located in Matelica (province of Macerata, MC), at a distance of about 15 km from the UNICAM headquarters in Camerino (MC) (see Introduction, Figure 1).

Block 1 (Central Block) - Via Circonvallazione 93-95, see Annex 4.1, Figure 4.1.1 This block actually consists of 2 connected buildings, the “San Sollecito” and the “New Division”, as described below.

The “**San Sollecito**” (see Annex 4.1, Plans 1.a, 1.b, 1.c, 1.d and 1.e) is a 1200 sqm large, 14th century building, which has been functioning for centuries as the human general hospital of the town of Matelica. Completely restructured in 1990, it is now the main building of the SBVM. It includes the ground floor (Annex 4.1, Plan 1.a), the intermediate (mezzanine) floor (Plan 1.b), the first floor (Plan 1.c), the second floor (Plan 1.d), and the basement (Plan 1.e). It mainly houses most of staff offices, administrative offices, one meeting room (Teachers’ Room), one lecture hall (*Aula Azzurra*), one students’ room, the chemistry and morphology (anatomy and pathology) laboratories, the clinical pathology laboratory, the surgery unit, and digital radiology for small animals. Almost the entire ground floor is dedicated to clinical activities and provides direct access to the Small Animal Clinical Division (SACD). Starting from the AY 2019/20, a colony of bees consisting of three educational hives has been set up in an area near Block 1. At the moment, the colony is used for teaching purposes related to the three-year degree course in “Safety of Livestock Production and Enhancement of Typical Foods of Animal Origin”. However, a future extension to the veterinary medicine course is envisaged, given the growing local and national interest in this topic.

The “**New Division**” (see Annex 4.1, Plans 2.a and 2.b) is nearly 1500 sqm large, it has been renovated in 2010, and was the municipal kindergarten until the end of September 2010. It includes the basement (Annex 4.1, Plan 2.a) and the mezzanine floor (Plan 2.b). It houses most of the facilities of the SACD of the Veterinary Teaching Hospital (VTH), with the exception of the Surgery Unit, located in “San Sollecito”, as mentioned above.

The mezzanine floor hosts the reception, 2 waiting rooms for pet owners (separated for dogs and cats), 1 teaching examination room, 1 emergency room, and 7 specialistic examination rooms: dermatology, reproduction, orthopaedics/neurology, ophthalmology, oncology, cardiology, and gastroenterology. An additional radiology room (Emergency radiology) is located here. The *New Division* constitutes the “Internal Medicine Unit” and the “Diagnostic Unit” (electrocardiography, Holter, abdominal and thoracic ultrasonography, as well as digestive and respiratory endoscopy) of the SACD. Moreover, the Emergency unit and Intensive care unit are located here, as well.

The oncology treatment room and 2 duty rooms (1 for students and 1 for veterinarians) are also located on the mezzanine floor.

The Computed Tomography (CT) device, the Magnetic Resonance Imaging (MRI) device, and boxes for regular hospitalisation of dogs and cats are located in the basement. Additional small animal hospitalisation units, as well as two quarantine rooms, are also located in the infectious disease isolation unit. The isolation facility is considered a part of the new division, but is completely isolated

from the other areas, and has an external access located on the opposite side of the reception area. One lecture room (hall S), 1 teaching practice room, 1 refreshment room, a drug storage room and a feed storage room are also located on this floor. In the basement floor of SACD, there are physiotherapy/rehabilitation room, a blood bank, and exotic pet rooms.

Students and owners may use the parking area next to the central block. Part of the San Sollecito courtyard is used as reserved parking area for the staff.

Block 2 (Large Animal Clinical Division) - Località Casette San Domenico (see Annex 4.1, Plan 3a).

An aerial view of Block 2 is included in Annex 4.1, Figure 4.1.2. The Large Animal Clinical Division (LACD) is approximately 400 sqm large, and is located at a distance of around 0.5 km from the Central Block. Designed mainly for horse care, it also has facilities for hospitalisation of other farm animals, including small ruminants, swine, and bovines. This complex includes the waiting room interconnected with the reception area, where owners can provide their personal and animal data. In the LACD, two night-duty rooms are available for both, students and medical staff on duty. The large animal radiology room is also located in Block 2 and has an independent access. The main consulting room (lecture hall L) has 20 seats located in the upper level for students, and a wide area equipped with appropriate teaching and diagnostic tools, such as an equine stock, and a projector that can be connected to diagnostic tools or to the camera located in the surgical theatre. This hall is completed by three locked storages (named a, b and c in Annex 4.1, Plan 3a) for drugs, medical supplies and diagnostic instruments.

Block 2 also includes the LACD surgical unit, including a surgical theatre and a surgical service room. The equine ward includes a padded box (close to the surgical theatre) for induction and recovery from anaesthesia, an intensive care box equipped with a horse lifter and oxygen supply, and 6 boxes for horse hospitalisation. Three completely separate boxes with separate external access serve as an isolation area for large animals with contagious diseases. Two specific areas are used for the hospitalisation of bovines (maximum 4 animals) and small ruminants/swine (maximum 8 animals). The LACD reproduction section accounts for 2 boxes for mares, 1 consultation room equipped with an equine stock, a teaching room and the artificial insemination/embryo-transfer laboratory. A new facility/laboratory for equine semen collection, processing and evaluation should be ready by the month of May 2021. The hayloft, the dung-heap, and an external storage are located close to the main building. A wastewater treatment system is also present (not shown in Plan 3a). Several paddocks are located around the hospital to host horses and donkeys.

A Wild Animal Hospitalisation Area (Annex 4.1, Plan 3b) has been created following an agreement with the Sibillini Mountains National Park, in order to provide first aid to wild animals that may be referred to the LACD.

Block 3 (Teaching Block) - Via Fidanza (see Annex 4.1, Figure 4.1.3).

This block is composed of 4 buildings (see Annex 4.1, Plans 4.a, 4.b.1, 4.b.2 and 4.c):

- **Building A** (nearly 900 sqm): not currently in use and under reconstruction. A project for adaptive reuse of the building has been approved (see Annex 4.2), and it will host the new microbiology and virology laboratory, a teaching microbiology laboratory, several lecture halls, the new computer room, and spaces for students.
- **Building B** (nearly 200 sqm): restructured at the beginning of the 1990s, it hosts the microbiology and infectious disease laboratory. The microbiology section includes the food microbiology laboratory, the molecular biology laboratory, the serology/bacteriology laboratory, 1 preparation room and 3 staff offices (Plan 4.a). The new bacteriology and virology laboratories, and the teaching microbiology laboratory will be located in the new Building A under construction.
- **Building C** (nearly 800 sqm): built in the 1970s, it has been completely renovated in the 1990s, and partially again in 2010. This building has a ground floor (Plan 4.b.1) and a basement (Plan 4.b.2). It houses 2 lecture halls (B and C), the main library, the study room for students, the

microscope room, the anatomy room (hall D), the student refreshment area with a cafeteria and an additional area to be used by students (social and tutoring activities).

- **Building D** (nearly 700 sqm): restructured in 1997, this building houses the main lecture hall (*Aula Magna*), the computer room, 5 lecture halls (E, F, G, H and N), one office, and the concierge desk (Plan 4.c).

Block 4 (*Teaching Slaughterhouse*) - Località Casette San Domenico (see Annex 4.1, Plans 5.a, 5.b and 5c). An aerial view of Block 4 is included in Annex 4.1, Figure 4.1.2.

The SBMV has an agreement with the Municipality of Matelica for the teaching slaughterhouse, located about 700 meters from Block 1. It is nearly 640 sqm large, and was built between 2008 and 2010 by the Municipality on a land owned by UNICAM. Block 4 also includes the Food Inspection room and the Necropsy room, adjoining to the slaughterhouse and physically separated, according to health and safety principles. The new Dissection room is also located in this Block. These premises will be described further in the text, and are illustrated in Annex 4.1. While the Food Inspection room and the Necropsy room are fully operating since 2010, the new Dissection room will be completed and fully operational by the end of March 2021. However, of the slaughterhouse never became operational: due first to the economic crisis, and then to the seismic events, no company interested in managing the facility has been found.

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

A periodic maintenance and upgrade, where necessary, is programmed for almost all equipment and facilities. Head of each laboratory supervises periodic checks of instruments and equipment, with the support of the relevant technical staff members, who regularly use the equipment. Furthermore, during the periodic meetings of the CYCCs and the DCVM Committee, students and teachers discuss any possible issues related to facilities and equipment observed during training activities, and apply possible corrective actions. In the case of major problems, they make suggestions to be referred to the School Council or to the VTH Council, particularly in the case of clinical equipment.

As for the main clinical equipment (MRI, CT, X-rays, and ultrasound machines), programmes for periodic assistance are implemented and performed by specialised personnel, in agreement with the relevant supplier companies.

During the meetings of the VTH Committee, medical staff and students may periodically discuss the acquisition and upgrade of a new facility or instrument, using the VTH funds. If an instrument must be acquired using the funds of the School, the relevant proposals must be submitted to the School Council for the approval. If some expenses are to be charged to the University, the final approval is released by the Board of Directors.

Funds of the VTH deriving from clinical activities and/or from specific research programmes, may be used for updating/acquiring instruments without the approval of the School Council, by submitting the request to the Medical Director, as regards routine and limited expenses, or through the VTH Council in the case of greater expenses or important equipment.

How the Establishment ensures that all physical facilities comply with all relevant legislation

Periodic official checks of the various systems and premises are carried out by the relevant official authorities (Municipality, Fire Department, Local Health Unit, University, etc.), in some cases through contracting specialised private companies. The frequency and allocation of tasks for the main premises and systems of the SBVM-bVM are listed in Annex 4.3.

As regards the health and safety of workers, the University of Camerino, and therefore the School, has a centralised Division (Division for Purchases, and Assets - Office for Logistics, Assets, and Safety) in charge of the implementation, management and control of safety of workers (and students) and premises, in compliance with the requirements of Legislative Decree No. 81 of 9 April 2008.

The English versions of Guidelines for “Laboratory Safety”, for “Biohazard”, and for “Special Hazardous Waste” are available on the website at the following link: https://www.unicam.it/sites/default/files/documenti-pag/2020/Linee%20guida%20operative%20per%20la%20corretta%20gestione%20dei%20rifiuti%20speciali_EN.pdf.

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

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

Short description of the premises for lecturing, group work, practical work, and skill labs

All lecture halls are equipped with at least one PC and one video projection system. Some of them are also equipped with VCR and DVD devices. Lecture hall *Aula Azzurra*, Lecture hall S, and Lecture hall L, are connected, by means of closed-circuit cameras, with the SACD and LACD surgical suites, respectively. Examination rooms for ultrasound and endoscopy are also equipped with projectors so as to allow relevant images to be shown on the wall. Diagnostic and surgical procedures can be recorded, acquired, and broadcasted, for teaching and research purposes.

Practical activities within teaching courses are planned in the teaching calendar, and are generally scheduled in the afternoons. This allows group work, such as desk-based work, to be carried out also in the lecture halls that are not used for theoretical lectures in the afternoon. The scheduling of activities is possible thanks to the organisation planned by the Study Program Administration Officer supported by the DCVM Coordinator, following any proposals made by Bod and/or the DCVM Committee during their meetings (see Standard 1).

Students perform supervised group work arranged in small groups in almost all rooms/halls listed in Tables 4.2.1, 4.2.2, and 4.2.3. The total number of places, considering all SBVM-bVM’s premises is 816 (sum of total places listed in Tables 4.2.1 and 4.2.3).

Table 4.2.1. Premises of the SBMV-bVM for lectures.

Name	Block	Location	Places ⁽¹⁾
Lecture hall B	3	Building C	33
Lecture hall C	3	Building C	56
Lecture hall D	3	Building C	45
Lecture hall E	3	Building D	42
Lecture hall F	3	Building D	64
Lecture hall G	3	Building D	64
Lecture hall H	3	Building D	53
Lecture hall N	3	Building D	20
Lecture hall S	1	New division	27
Lecture hall L	2	Block 2	20
Aula Magna	3	Building D	160
Aula Azzurra	1	San Sollecito	42
Total No. of Places			626

⁽¹⁾ The number of places is referred to fully operational premises.

Table 4.2.2. Number of premises of the VTH for group work and student training.

Premises	Type of patients	N° premises
Consulting rooms	Small animals	8
Surgical suites	Small animals	3
Endoscopy	Small animals	1
Ultrasound	Small animals	1
CT	Small animals	1
MRI	Small animals	1
X-Ray	Small animals	2
Physiotherapy/rehabilitation	Small animals	1
Isolation units	Small animals	1
Teaching practice rooms	Small animals	2
Examination areas/halls	Equine and food animals	2
Surgical suite	Equine and food animals	1
X-Ray	Equine and food animals	1
Isolation unit	Equine and food animals	1
Total No. of Premises		26

Table 4.2.3. Premises of the SBMV-bVM for group practical work/skills labs.

Name	Block	Location	N° Places ⁽¹⁾
Morphology laboratory A	1	San Sollecito	10
Morphology laboratory B	1	San Sollecito	5
Morphology laboratory C	1	San Sollecito	5
Molecular biology	3	Building B	6
Microscope room	1	San Sollecito	4
Bacteriology and serology	3	Building B	6
Food microbiology laboratory	3	Building B	6
Clinical pathology laboratory	1	San Sollecito	6
Reproduction laboratory	2	LACD	4
Reproduction teaching room	2	LACD	4
Chemistry laboratory A	1	San Sollecito	10
Chemistry laboratory B	1	San Sollecito	10
Chemistry laboratory C	1	San Sollecito	10
Microscope room	3	Building C	15
Library	3	Building C	72
Copology	1	New division	2
Computer room	3	Building D	15
Inspection room	4	Block 4	15
Necropsy room	4	Block 4	15
Dissection room	4	Block 4	15
Total No. of Places			235

⁽¹⁾ The number of places is referred to fully operational premises.

Short description of the premises for study and self-learning, catering, canteens, locker rooms, duty rooms for on-call students, leisure, sanitary premises

The library, the study room, and the computer room may be used for study and self-learning purposes (see Table 4.2.4), in addition to the lecture halls available in the afternoon (when not in use for teaching). If students wish to use lecture halls, they have to ask the concierge in advance, leaving their names, and signing a specific register for access to the room(s).

Self-learning positions/stations are at students' disposal also in Morphology laboratory B, which hosts a multi-head microscope for histological and histopathological observations, and in Lecture hall D, where the bone collection is located.

Ten self-learning positions/stations are available within Small (9) and Large (3) Animal Clinical Department.

Changing rooms for students are located in the new Dissection room, and in the building hosting both, the Necropsy and the Food Inspection rooms (Block 4).

Duty rooms and lockers for on-call students are located in both, LACD and SACD.

In Block 3, Building C, a space dedicated to a cafeteria is present, but it is closed at the moment (see Substandard 7.7), and a new selection procedure for the management of the cafeteria is ongoing.

Students of the SBVM-bVM have access to the self-service canteen (for lunch and dinner), called "G.M.A. Gestione Mense Antonelli E. e Amici S.", located in Matelica, via M. Polo 1, which operates a low-price policy, and with which the University has an agreement.

Vending machines are located in LACD, SACD, and in Block 3.

Sports facilities are provided by the "University Sporting Centre", which is financed jointly by UNICAM and the MUR. The University Sporting Centre encourages students to embark in and pursue sporting activities. The headquarters are located near Camerino, where its facilities are available to the entire University community, and include a polyvalent gym (volleyball, basketball, football, squash), a swimming pool, and fields for several sports. The University Sporting Centre may be reached by students living in Matelica using their personal vehicles, or by free public transportation, or by a bus upon students' request. UNICAM also makes arrangements with different private sports centres located in Matelica, allowing students to pay a reduced yearly subscription fee (gyms, municipal swimming pool, etc.). The Tennis club of Matelica is also available at special prices for students of the SBVM-bVM, also for football tournaments, which involve students enrolled in different years of the DCVM.

Toilet and washing facilities are located in all buildings (see Annex 4.1).

Shower and/or washing facilities are located within the bathroom on the mezzanine floor of the SACD, and in the bathroom of the LACD.

Table 4.2.4. Premises of the SBVM-bVM for self-learning and study.

Name	Block	Location	N° Places ⁽¹⁾
Student room	1	San Sollecito	10
Computer room	3	Building D	15
Library	3	Building C	72
On call student room/Locker	1	New Division	3
On call student room/Locker	2	LACD	2
Self-learning positions/stations	1	New Division	7
Self-learning positions/stations	2	LACD	3
Multy-head microscope	1	San Sollecito	5
Lecture hall D (bone collection)	3	Building C	45 ⁽²⁾
Total No. of Places			162

⁽¹⁾ The number of places is referred to fully operational premises.

⁽²⁾ To be recalculated upon the completion of the new Building A in Block 2.

Brief description of the staff offices and research laboratories

Block 1 San Sollecito, Block 2 LACD, and Block 3 - Buildings B and C, all have fully furnished offices for teaching and support staff, where students may also be received, according to their needs. Each office houses up to four staff members, depending on the space available, in order to allow an easy interaction with students. A complete list of offices is included in Table 4.2.5.

Table 4.2.5. Staff offices.

Location	Rooms	Surface area (sqm)	N° staff		
San Sollecito	Office 1	12.23	2		
	Office 2	14.55	2		
	Ground floor	Office 3	18.24	2	
		Office 4	25.70	1	
		Office 5	13.28	1	
		Office 6	20.31	2	
		Mezzanine floor	Office 7	22.27	3
			Office 8	13.77	2
	Office 9		18.05	2	
	Office 10		15.22	2	
	Office 11		11.44	2	
	Office 12		17.21	2	
	First floor	Office 13	39.47	4	
		Office 14	40.20	2	
		Office 15	14.83	1	
		Office 16	20.68	2	
		Office 17	25.86	2	
		Office 18	17.69	1	
		Office 19	17.94	2	
		Office 20	12.02	1	
		Office 21	23.77	4	
		Office 22	18.00	2	
Block 3	Bulding B	Office B1	16.50	1	
		Office B2	6.00	1	
		Office B3	6.00	1	
	Bulding C (Library)	Office C	12.24	1	
	Bulding D	Office D	12.24	1	

All premises listed in Tables 4.2.2 and 4.2.3 are used for both, teaching and research purposes. Furthermore, parts of the LACD and of the SACD are officially authorised by the Health Ministry to host equine, small ruminants, and swine for research purposes, in compliance with Directive 2010/63/EU of 22 September 2010 on the protection of animals used for scientific purposes.

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

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

Description of the premises for housing animals.

Healthy animals include 4 horses, 2 bovines, 2 donkeys, and 4 small ruminants, stabled in boxes or outdoor paddocks located in Block 2 (LACD). An external separated area hosts the 2 bovines, while the equine area is organised in different paddocks, for healthy and for hospitalised animals.

As previously mentioned, part of the VTH premises is also authorised by the Italian Ministry of Health to be used for research purposes on equines, pigs, and sheep (LACD), and on pigs and sheep (SACD) (see Annex 4.4).

Places available at the VTH for animal hospitalisation and accommodation are listed in Table 4.3.1. *Regular hospitalisation* is intended for animals that do not need intensive care, and are placed in boxes or cages of appropriate size. A separated area is equipped with a table and a drug locker for daily clinical evaluation and treatment of these animals.

Isolation facilities are reserved for animals affected by infectious diseases, and are better detailed in Substandard 4.6. Strict compliance with procedures, prescribed to avoid the risk of spreading infectious diseases, is mandatory to access these areas.

Intensive care unit (Annex 4.1, Plan 2.b) is equipped with tools for intensive care of critical patients: infusion pumps, monitoring systems, oxygen delivery device.

Post-anaesthesia unit for large animals includes a padded box (Annex 4.1, Plan 3.a). For small animals, there is a separate room in the Surgery Unit, where patients are housed and monitored until they are fully awake and ready to be moved (Annex 4.1, Plan 1.a).

Hospitalised animals or patients in day hospital, who need physiotherapy or rehabilitation, are housed in regular hospitalisation boxes. The following equipment and services are available: treadmill Grillo (only for small animals), swimming pool (only for small animals), He-Ne laser therapy, electro-stimulation, quantum therapy, ultrasound therapy, magnetotherapy, thermotherapy, therapeutic exercises, and massages.

Table 4.3.1. Places available at the VTH for animal hospitalisation and accommodation.

	Species	No. of places
Regular hospitalisation	Bovines	4
	Horses	8 ⁽¹⁾
	Small ruminants	8
	Dogs	10
	Cats	9
	Unconventional	3
Isolation facilities	Farm animals and horses	3
	Dogs	7
	Cats	3
Quarantine	Dogs	5
	Cats	6
Intensive Care Unit	Small animals	12
Intensive Care Unit	Large Animals	1
Post-Anaesthesia	Small animals	5
Pre- and post- Anaesthesia	Horses	1
Total		85

⁽¹⁾ This number includes 5 places for horse hospitalisation, 1 external box for stallions, and 2 boxes for mares in the reproduction section at the LACD.

Brief description of the premises used for the practical teaching of FSQ & VPH

The SBVM-bVM does not have its own food processing unit and slaughterhouse, and the teaching slaughterhouse build by the municipality of Matelica is not operational yet for the aforementioned reasons (see Substandard 4.1). Thus, students can practice FSQ in small groups, thanks to agreements with public and private slaughterhouses and food processing plants, both during extramural activities and EPT. A food microbiology laboratory and three (A, B and C) food chemistry and technology laboratories, used to carry out practical activities in small groups, are located in Block 3, building B, and in Block 1 San Sollecito, respectively (see above). Practical activities in FSQ and VPH are performed in small groups, also in the Microscope room (Block 3, Building C), and in the Food inspection room (Block 4).

Despite the fact that the SBVM does not have its own farm, students are able practice all aspects of VPH thanks to agreements with several farms and small public animal shelters, as well as contracts with private practitioners, allowing students to experience veterinary medicine in equine, bovine, swine, small ruminant, small animals, rabbit and avian facilities, in subjects specifically related to VPH.

Thanks to the aforementioned agreements, students are involved in several aspects of small and large animal practice, including animal production, preclinical and clinical subjects (see Standard 3).

Description of the premises, and equipment for clinical activities and diagnostic services, including necropsy

VTH of the SBMV is able to provide specialised services on several subjects, such as obstetrics, andrology and gynaecology, dermatology, cardiology, gastroenterology, ophthalmology, oncology, orthopaedics, neurology and neurosurgery, and soft tissue surgery. Dedicated rooms are provided for abdominal and thoracic ultrasonography, digital radiology, MRI (only for small animals), CT (only for small animals), and video-assisted diagnostic and surgery, such as endoscopy, laparoscopy, thoracoscopy, and arthroscopy. Equipment for haematology, chemical analysis, blood gas analysis, coagulation profile, urine analysis, cytology, serology, and blood components production for non-transfusion therapy, are located in the clinical pathology laboratory.

The centralised medical oxygen delivery system reaches all rooms where anaesthesia is performed (surgical suites, CT, MRI, ultrasonography, endoscopy, padded box for induction and recovery from anaesthesia of large animals), the post-anaesthesia room, and the Intensive Care/Emergency Unit. Students are involved in all clinical activities performed on both, day-patients and hospitalised animals. All rooms are suitable for practical work of small groups of students. The list of premises for clinical activities is exhibited in Table 4.3.2.

Internal Medicine and Diagnostic Imaging instruments include Video endoscopy, Digital Radiology, Ultrasonography, Computed Tomography, Magnetic Resonance Imaging, ECG, and Holter device. Surgery Unit instruments include 3 surgical suites for small animals (Annex 4.1, Plan 1.a), and 1 for large animals (Annex 4.1, Plan 3.a), fully equipped for surgery of different systems that are currently operative. It must be pointed out that the VTH has the only surgical suite for large animals within the Marche Region.

The Small animal surgical suite No. 1, and the Large animal surgical suite, are equipped with a short-circuit camera connected with external projectors (located in *Aula Azzurra*/Lecture hall S and Lecture hall L, respectively) for teaching purposes.

The described services are available for hospitalised animals, and for those referred to the VTH by owners, private practitioners, or kennels.

Diagnostic pathology services, and relevant laboratories, include Necropsy and Morphology Unit. Molecular Biology and Bacteriology, and Serology premises belong to the Infectious Diseases service and diagnostic laboratories.

Other premises are: Clinical Pathology laboratory, Artificial Insemination laboratory, Chemical Unit, and Food Microbiology laboratory.

Table 4.3.2. Premises for clinical and diagnostic services, and related size.

Premises	Activities	Size (sqm)
Small animal consulting rooms	1. Emergency	11.08
	2. Dermatology	15.12
	3. Orthopaedics	15.11
	4. Cardiology	13.06
	5. Oncology	12.93
	6. Gastroenterology	13.14
	7. Ophthalmology	12.54
	8. Reproduction	17.43
	9. Intensive care	14.58
	10. Students	13.71
Unconventional pet room	All	7.96
Large animal consulting room	1. Internal medicine	90.13
	2. Reproduction	28.49
Small animal surgical suite	1. Ortho/neurosurgery	23.00
	2. Soft tissue Surgery	12.77
	3. Generic Surgery	21.83
Surgeon preparation 1/ Sterilisation	Surgery	14.10
Surgeon preparation 2	Surgery	13.94
Patient preparation	Surgery	18.37
Post-Anaesthesia room	Surgery	12.74
Large animal surgical suite	Surgery	30.89
Endoscopy	Diagnostic	37.35
Ultrasonography	Diagnostic	37.50
Treatment room	Therapy	17.15
Chemotherapy	Therapy	12.51
CT	Diagnostic	53.54
MR	Diagnostic	26.88
CT/MR preparation	Diagnostic	8.05
X-Ray	Small animal emergency	15.28
	Small animal diagnostic	14.08
	Large animal diagnostic	17.40
Emergency lab	Diagnostic	8.70
Clinical Pathology lab	Diagnostic	64.54
Intensive Care	Therapy	15.68
Physiotherapy/Rehabilitation	Therapy	29.76
Cat hospitalisation	Therapy	15.34
Dog hospitalisation	Therapy	22.19
Treatment room	Therapy	26.44
Drug storage		9.04
Feed storage		8.67
Cat Isolation unit	Isolation	31.21
Dog Isolation unit	Isolation	32.41
Isolation Consulting room	Isolation	16.15
Large animal Isolation unit	Isolation	47.88
Clinical Microbiology	Diagnostic	78.00
Diagnostic Pathology	Gross Pathology	43.50
	Histo-/cytopathology	74.43

A detailed list and a brief description of the aforementioned premises and equipment for clinical activities and diagnostic services, is exhibited in Annex 4.5.

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

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

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

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

Description of the organisation and management of the VTH and ambulatory clinics.

Statement that the Establishment meets national Practice Standards

Description of the organisation and management of the VTH is given in detail in Substandard 1.2. It is open 24 hours/day, 7 days/week, 365 days/year, and it is the only veterinary hospital that guarantees such service for both small and large animals within the Marche Region. Apart from the 24/7 emergency service, opening hours of the VTH are from 9:30 to 18:30, from Monday to Friday, offering general and specialised services.

Based on clinical and diagnostic findings, patients can be discharged with a proper therapy, or admitted in ordinary hospitalisation regime, or in intensive care unit (ICU), according to their needs. During regular opening hours, on-duty academic staff provides general and specialised clinical services for first opinion, and take on referral cases by Private Practitioners (PP).

The on-call emergency service is mainly guaranteed by rotating VTH veterinary staff and, if necessary, by practitioners enrolled as contract veterinary service providers for specialistic consultations. A list of practitioners available to be called for emergency cases, or for specific and specialistic procedures at the VTH, is exhibited in Annex 4.6.

During opening hours, the emergency service (ES) is carried out by on-duty temporary veterinary staff members and interns, supported by on-duty academic staff. Outside opening hours, the ES is guaranteed by interns, and on-duty temporary s veterinary staff, and supported by on-call academic clinical staff and/or on-call contract veterinary service providers, depending on the needs. In this context, students of the 3rd, the 4th and the 5th year are included in the ES rotation, and take part in clinical ES activities, according to their study plan.

As previously mentioned (see Substandard 1.2), and described in the following Tables 4.4.1, 4.4.2 and 4.4.3, the VTH is divided into OUs, each one organised and supervised by the Head of the Operating Unit, who guarantees the regular conduct of VTH clinical activities. The entire clinical work carried out by all the staff involved in VTH, as well as clinical activities performed by students, are organised and managed so as to ensure, at least, good veterinary practice standards (e.g. FVE (Federation of Veterinarians of Europe) - Code of Good Veterinary Practice, adopted by FNOVI (Italian Federation of Professional Veterinary Associations)).

All VTH activities allow students to be involved in hands-on and clinical training with small, large and unconventional animals.

Students play a primary role in the VTH routine workflow, being actively involved and supervised by the academic staff and veterinarians (interns and contract practitioners), in a wide range of activities, most of which are listed in Annex 4.7.

Table 4.4.1. Organisation of SACD Operating Units.

VTH Organization – SACD	
Operating Unit	Services
Internal Medicine	- Emergency and Critical Care
	- Dermatology
	- Cardiology
	- Ophthalmology
	- Gastroenterology
	- Nephrology
	- Endocrinology
	- Oncology
	- Neurology
	- Endoscopy
Surgery	- Anaesthesia
	- Soft Tissue Surgery
	- Orthopaedics
	- Orthopaedic Surgery
	- Neurosurgery
	- Physiotherapy and Rehabilitation
	- Odonto-Stomatology
	- Ophthalmic Surgery
	- Arthroscopy
	- Laparoscopy
- Thoracoscopy	
Reproduction	- Gynecology
	- Andrology
	- Obstetrics
	- Neonatology
	- Artificial insemination

Table 4.4.2. Organisation of LACD Operating Units.

VTH Organization – LACD	
Operating Unit	Services
Internal Medicine	- Emergency and Critical Care
	- Dermatology
	- Cardiology
	- Ophthalmology
	- Gastroenterology
	- Nephrology
	- Endocrinology
	- Oncology
	- Neurology
	- Endoscopy
	- Diagnostic Orthopaedics
Surgery	- Anaesthesia
	- Standing Surgery
	- Soft Tissue Surgery
	- Orthopaedic Surgery
	- Odonto-Stomatology
	- Ophthalmic Surgery
	- Arthroscopy
- Laparoscopy	
Reproduction	- Gynaecology
	- Andrology
	- Obstetrics
	- Neonatology
	- Artificial Insemination
- Embryo Transfer (ET)	

Table 4.4.3. Organization of SACD and LACD Cross-Operating Units.

VTH Organization – SACD & LACD Cross Units	
Operating cross-Unit	Services
Imaging	<ul style="list-style-type: none"> - Ultrasounds - X-rays - CT (<i>only for small animals</i>) - MRI (<i>only for small animals</i>)
Clinical Pathology Lab and Blood Transfusion Centre	<ul style="list-style-type: none"> - CBC - Biochemistry - Urinalysis - Electrophoresis - ELISA - Transfusion medicine
Regenerative Medicine	<ul style="list-style-type: none"> - PRP - Other blood components for non-transfusion therapy - Stem cells and adipose vascular stromal fraction

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

Description of how all students may access all relevant facilities

Students are actively involved in the different clinical procedures carried out both, in the VTH and extramurally, as detailed in Substandard 4.4.

All the equipment available in the VTH has a dual purpose, and is used both, teaching and clinical services. Students attending clinical rotations in different OUs, use, under supervision and assistance of staff members, fully equipped consulting rooms for examination of animals, operating theatres for surgical procedures, as well as all available tools for diagnostic purposes (for details, see Tables 4.2.2, 4.2.3 and 4.3.2).

Regarding the microbiology practical activities, it should be mentioned that during the last three AYs, students have had the possibility to perform it in dedicated teaching laboratories located in Camerino (belonging to the SBVM), while awaiting completion of new laboratories in the New Building A (see Annex 4.2).

Several rooms in the VTH facilities are equipped with either a large screen on the wall or a video projector to allow students a more detailed visualisation of veterinary procedures. Furthermore, it is possible to acquire images and videos for further teaching use, including self-learning.

The OUs are provided with standard equipment for routine diagnostic examination and surgery, state-of-the-art endoscopy equipment, and diagnostic imaging devices.

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

Description of the premises for housing isolated animals

A quarantine subunit designed to guarantee a period of hospitalisation for animals (5 dogs and 6 cats) with history or symptoms possibly referred to an infectious disease, is located in the isolation unit of the SACD. Access to this subunit is provided by a separated external entrance. During the quarantine

period, diagnostic tests are performed to evaluate the actual presence of an infectious disease. In the case of positive results, the animal is moved to the infectious disease subunit of the isolation unit, in order to be adequately treated. Conversely, animals not affected by an infectious disease may be moved to the other diagnostic or treatment sections of the SACD, or discharged.

Animals with infectious diseases are housed and treated in dedicated sections of the SACD and the LACD, completely isolated from other areas by means of a proper exclusive loading/unloading areas and entrances. Complying with standard measures prescribed to avoid the risk of spreading infectious diseases are mandatory to access these areas.

The SACD isolation area (72 sqm) has an outside entrance that accesses a consulting room, where animals with suspected or confirmed infectious diseases are received. Staff members and students access the isolation area through an internal entrance with a decontamination area, communicating with the isolation consulting room. This area is fully equipped with drugs and supplies to support incoming patients and allow students to collect history, and perform physical examination and clinical work. The consulting room has access to two separate areas: the abovementioned quarantine area, and the hospitalisation area for dogs (up to 7) and cats (up to 3), both equipped with dedicated medical supplies.

The LACD isolation area (48 sqm) includes 3 boxes, a consulting area, a storage fully equipped with drugs and supplies to support incoming patients and a decontamination area. Animals with suspected or confirmed infectious diseases access the LACD isolation area through an outside restricted entrance. Staff members and students access the isolation area through a different external entrance facing the decontamination area.

The plans of SACD and LACD isolation areas are depicted in Annex 4.1 Plans 2a and 3a, respectively.

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

Description of how and by whom field veterinary medicine and herd health management are taught to all students. Description of the vehicles and equipment used for the ambulatory clinic.

Field veterinary medicine and herd health management are carried out by 4 practitioners registered as contract practitioners (see Substandard 9.2, Table 9.2.1, and Annex 9.2), employed by means of a personal contract (exhibited in Annex 9.4), stipulated on the basis of their recognised competences in a given field, as listed in Table 4.7.1.

Table 4.7.1. Species of interest of contract practitioners performing extramural activity in large and production animals.

Contract practitioners	Species
Corradini Corrado - National Specialist	Cattle
Galli Renzo - Poultry Farm Veterinarian	Poultry
Pacifici Luciana - National Specialist	Small Ruminants
Bastianelli Simone - National Specialist	Pigs

These practitioners are considered non-budgeted teachers (0.7 FTE each), and are paid from the School's own funds. They are provided with an e-learning course on the bases of teaching (<https://elearning.unicam.it/course/index.php?categoryid=58>), and may attend continuing education courses provided by UNICAM for teaching staff. They carry out, in particular, field teaching activities at farms (ambulatory clinic), on a regular basis, scheduled at the beginning of each AY,

and are called in case of need and/or emergencies (only within weekly planned groups). Students are also taught field veterinary medicine and herd health management during the night and weekend shifts at LACD. The activities performed by students under the supervision of contract practitioners are aimed at acquiring some Day One Competences (according to specific training programmes) that are verified by the practitioners and certified in the logbook for clinical activities by the academic staff members responsible for the activity, upon their positive evaluation.

Other practitioners are included in a register and called when necessary, for emergency or for specific and specialistic procedures (see Annex 4.6). The inclusion in this register (available not only for freelancers, but also for interns, ex-interns and other non-budgeted practitioners) is obtained following a selection based on the evaluation of *curricula* by a special board composed of medical staff of the VTH.

This kind of service allows students to participate in additional practice activities throughout the year, regardless of planned teaching activities.

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

Brief description of the vehicles used for transportation of live animals and cadavers/organs

For teaching purpose (ambulatory clinic), students travel by their personal vehicles, together with the contract practitioners, since most of the farms and facilities are located near Matelica. The SBVM-bVM doesn't have vehicles for student transportation. Anyway, students are covered by insurance during the conduct of these activities, even when they use their own vehicles.

The SBVM doesn't have vehicles for transport of live animals to the clinics. As regards dogs and cats, owners transport their own animals to the VTH. This is also the case with large animals.

Cadavers and organs of small animals (especially dogs and cats) are provided by the SACD, or by practitioners, when animals die by natural causes or are euthanised, if bodies are not affected by any infectious disease and are suitable for practical training. Organs and carcasses of producing animals may be provided by slaughterhouses or purchased from the market to be used during practical activities of Anatomy and Food Inspection. Fish, fish products and processed products of animal origin (meat products, cheeses, etc.) are generally purchased from the market and brought to the Inspection room, Chemistry laboratories, etc. by the teachers using their personal vehicles. Some fish come also from fish farms. If cadavers of large animals have to be transported, specialised companies are contacted.

The transportation of cadavers of small animals and organs (also from slaughterhouses) is made using a vehicle of the SBVM-bVM, equipped with a trailer and adequate, hermetically sealed, containers, all approved by the official Local Health Authority. The Clinical section has two freezers used to maintain cadavers of animals deceased during hospitalisation and not collected by the owners. These cadavers are used for practical anatomical dissection, provided that carcasses come from animals died by natural causes, and that they do not represent a hazard for transmission of infectious or parasitic agents.

Furthermore, other laboratories and teaching rooms have cold rooms and/or freezers to stock materials to be used for practical activities.

Laboratories, Dissection room, Necropsy room, Food Inspection room, and clinical sections are all provided with appropriate storage system for waste (cadavers, organs, food products, biological and chemical waste). After use, all carcasses, organs and products are usually disposed of by external specialised companies under agreement with UNICAM, which periodically collect the waste. All waste is collected and destroyed according to the specific legislation in force for each particular type of waste.

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

Implementation, assessment and revision of biosecurity procedures, and communication to staff, students, and stakeholders.

Starting from the AY 2010/11 (24 November 2010), a compulsory course on safety was organised during practical veterinary activities for all students and staff belonging to the School. The attendance at this course was mandatory for the students enrolled in the 1st year, being a prerequisite for carrying out practical activities during students' careers. Starting from the AY 2019/20, an on-line 4-hour mandatory course has been implemented. The course is provided by AIFOS (Italian Association for Occupational Safety Trainers and Operators), an accredited body for specific training. Subsequently, the course should have been completed by face-to-face teaching sessions, but the COVID-19 pandemic and the consequent lockdown made it impossible to do so. Therefore, in agreement with the offices of the University (in particular, with the Logistic, Assets and Prevention Office), safety manuals were drafted and sent to the students by email. Students have to read the manuals and are required to acknowledge their adherence by signing a special register. Specific handbooks on safety are also available for students in the laboratories, in paper form.

As mentioned previously in Substandard 4.1, guidelines for "Laboratory safety", for "Biohazard" and for "Special hazardous waste" are available in Italian and English version on the website at the following link: <http://www.unicam.it/ateneo/linee-guida-operative-la-gestione-di-rifiuti-speciali-pericolosi-e-la-sicurezza-nei>, with free access of staff members and students.

The abovementioned office acts jointly with the Protection and Prevention Service Manager to establish and revise the safety procedures. These are communicated to the persons in charge for the control and supervision of safety of the workers and premises (Safety Supervisors), listed for each department/division/unit in Annexes 4.3, 4.4, 4.5, 4.6, 4.7 and 4.8. Safety Supervisors are members of the academic staff, and have to attend specific courses to be assigned this task.

The bi-directional flow of information between students and workers, the Safety Supervisors, the Logistic, Assets and Prevention Office, and the Protection and Prevention Service Manager, ensure implementation, assessment, and revision of security and safety procedures.

Moreover, before starting their practical work, all students receive the necessary information about basic safety standard procedures from their teacher and from the technicians responsible for laboratories. Suitable clothing is mandatory for each laboratory or teaching room: disposable gloves, aprons, plastic overcoats, masks and shoe covers are provided to the students, as needed. During the first semester of the 1st year, students are provided with an individual basic "safety kit" (other information about general safety measures are listed in Standard 5). Instructions for proper use of equipment are posted on the walls of each laboratory, as well as evacuation maps and names of staff members responsible for the laboratory.

Students are taught animal handling during practical training in Animal Production, Internal Medicine, Surgery and Reproduction, during the 2nd, 3rd and 4th year of the course. Moreover, they constantly receive additional information and advice on appropriate approach to the animals, and on how to handle them during their practical activities. A sign is affixed to the cages or boxes of potentially aggressive animals. In order to be allowed to participate in a clinical activity, students have to wear suitable clothes (e.g. appropriate coats, accident prevention shoes for large animals, etc.). At least one technician has to be present with students during practice; every precaution and different means of animal restraint (manual, pharmacological, muzzle, restraint bag, twitch, etc.) are implemented when necessary, so as to avoid injuries to staff members and students.

Students are involved in positioning animals and setting the X-ray machine, but they are not allowed to stay in X-ray rooms while machines are operating, since only staff members are provided with personal X-ray dosimeters. Knowledge on radiation hazard and safety rules during X-ray examination is provided in the course of Radiology.

Comments on Standard 4

The earthquake that occurred in 2016 had several consequences in terms of the use and updating of the facilities and equipment. Various facilities, including a major part of the San Sollecito building, have become inoperative, forcing the staff to be transferred in temporary offices, some of which located in VTH environments, thus causing a partial reduction in the spaces available for clinical activities. However, veterinary services available to the public, and all teaching activities, including the practical ones, have been regularly performed, despite the limitations.

Concerning the updating of the facilities, the earthquake delayed or temporary prevented some planned renovations of the facilities, such as the New Building A, (see Annex 4.2), the new Physiotherapy/Rehabilitation Room (Annex 4.1 plan 2a) in the SACD, and the Wild Animal Hospitalisation Area (Annex 4.1 plan 3b) in the LACD.

It should also be noted that the economic crisis first, and then the earthquake, caused the closure of several farms under agreement, or forced them to reduce their activity. On the whole, the consequences that these events had on the availability of facilities and caseload for student practice have been very severe.

Comments on Standard 4 related to the COVID-19 pandemic

During the pandemic emergency period, the facilities of the School were accessible only to selected staff members, included in a duty rotation plan, on the basis of their competencies. However, the 24h/365d service has always been maintained active, in order to ensure essential healthcare services for the territory, and to guarantee veterinary assistance.

Students were not allowed to attend the VTH from the beginning of the pandemic until 27 July 2020. Starting from that date, the students were able to participate, on a voluntary basis, and only during the day, in practical clinical activities of the VTH, from Monday to Friday, in limited numbers (2 students in each shift), and with shifts aimed at limiting the possibility of overcrowding.

Activities of the hospital were ensured by the participation of interns, in shifts, assisted by the Heads of Operating Units and by other tenured staff members, both by direct presence, and by means of online/phone communications.

The restart of face-to-face lectures in October 2020 has been arranged according to general safety rules laid down by UNICAM (following those issued by the Italian Government) in order to guarantee distancing and hygiene measures. Besides the respect of such general safety rules and making available disinfection gel and an App (YoUnicam, for Android and iOS) to avoid crowding outside lecture halls and assign a specific seat to each student during lectures (<https://www.unicam.it/studente/younicam-app>), in all spaces (lecture halls, library, study room, etc.) proper stickers have been placed to show the seats available for students according to the general rule of not exceeding the 50% of seats available in normal conditions. Moreover, proper routes have been also created (where possible) to avoid crossing during student movements.

Finally, to create more spaces for classes with a greater number of students the Municipality of Matelica arranged a temporary additional fully equipped lecture hall (named Lecture Hall Z) located in the old building of primary school with more than 50 seats (according to the distancing rules), to host the lectures of the 3rd year of the DCVM which will be operating until the end of the AY2020/21 at least.

Suggestions for improvement as regards Standard 4

Acquisition and upgrade of equipment, especially the equipment used for clinical teaching purposes, is mostly guaranteed by the funds of the VTH. An increase in available funds, possibly from external resources, such as specific research grants or private contributions, would ensure a faster and more constant improvement of instruments.

The SBVM-bVM doesn't have vehicles for student transportation. Acquisition of means of transport needed to facilitate student mobilisation might be considered in the future but, despite the small number of students, the number of places to be reached by different small groups of students at the same time is too high to consider the possibility of acquiring only one vehicle.

As for transport of live animals, the acquisition of a vehicle for small animals should be considered also in the light of the implementation of the Wild Animal Hospitalisation Area (see Substandard 4.1 and Annex 4.1, plan 3.b) created to provide first aid to wild and/or small animals which suffer road accidents.

STANDARD 5 - ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

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

Global strategy of the Establishment on the use of animals and material of animal origin for the acquisition Day One Competences

The SBVM-bVM uses animals for both, teaching and research activities, following the recommendation of the Animal Welfare Body (AWB) of the University (<https://www.unicam.it/regolamenti/regolamento-di-funzionamento-dell'-organismo-preposto-al-benessere-degli-animali-opba>), issued with Rector's Decree No. 50 of 14 April 2015, and modified by Rector's Decree No. 3254 of 30 January 2019. The AWB operates in compliance with Legislative Decree No. 26 of 4 March 2014, which implements Directive 2010/63/EU. The AWB is responsible for verifying that the activities carried out on animals of any species, used for both, educational and experimental purposes, are ethically and scientifically correct, and methodologically appropriate. The purpose of the Body is to ensure the care and welfare of animal models used for scientific and/or educational purposes, in compliance with the provisions of applicable laws.

The VTH, which covers the medical, surgical and obstetric clinical activities of Small and Large Animal Clinical Divisions (SACD/LACD), is committed to providing state-of-the-art research-based practical clinical training for undergraduate and postgraduate education, thus ensuring responsible care for animal patients, and providing excellent 24-hour emergency care.

Since the previous EAEVE visitation, the Emergency Service has been better defined, and in recent years, the number of treated and hospitalised animal cases has greatly increased, significantly also increasing the number of clinical cases available for the training of students. In addition, the "Breeding Centre for Horses" has also been approved by the Marche Region, and is located in the premises of the LACD. Every year, the Centre houses numerous mares that are hospitalised for fertilisation and for embryo-transfer, also representing an additional number of large animals that students may observe and visit, thus assessing the reproductive system.

The VTH is organised so as to provide clinical activities for small and large animals, with a sufficient number of patients and resources for undergraduate and postgraduate training. This supports the strategy of teaching the treatment and care of animals, as a whole. All patients are included in undergraduate and postgraduate teaching and research activities. The carcasses of animals that die during emergencies or in clinical activities, as well as those humanely suppressed for non-curable pathologies (especially deriving from the new clinical oncology service), are used, among other things, as carcasses for autopsy and pathological anatomy activities (study of the different organs), and also for the study of topographical anatomy (if suitable). Many cadavers are used several times, both for practical surgical activities, and for pathological anatomy. Informed consents from patient owners are documented to ensure that animals, carcasses and animal material (blood, organs, bones, and muscles) may be provided for student training and research. During their clinical training, students play an active role in consultation visits and hospital shifts. To ensure that students, and also postgraduate students, who attend the Clinical Surgery and the Internal Medicine for specialisation courses (orthopaedics, ultrasound, soft tissue surgery, etc.), are trained in full respect of animal welfare, the SBVM-bVM is applying modern educational methods. For basic sciences, in particular for anatomy, different animal models and 3D presentations are also used, thus allowing the

evaluation of the topography of the coelomic cavities of the various animal species. Simulators are also used to develop the skills and competences of students and post-graduate students in ultrasound and endoscopy. The teachers of some clinical subjects (such as Clinical Oncology) have developed hand-made models with reused materials to allow students to perform instrumental examinations even without the use of animals. In fact, where possible, the SBVM-bVM fully adheres to the 3R philosophy also adopted at the European level (European Parliament Directive 2010/63/EU). In accordance with this line of thought, the SBVM-bVM has been actively working, for years, to apply that what the 3Rs stand for: *Replacement* (replacing animals with other methods, wherever possible), *Reduction* (using fewer animals in research and in teaching activities), *Refinement* (minimising discomfort in lab and farm, or hospitalised animals, through better housing, handling and pain relief). Students also receive zootechnical training, but also practical and case-based clinical training during activities performed at external livestock farms under agreement with the SBVM-bVM (see Tables 5.1.7 and 5.2.1), and during *Erasmus placement* activities at foreign universities or private clinics under agreement with the SBVM, where students are guided and supervised by senior, specialised VMDs.

Students also carry out extramural activities, particularly herd health visits. Activities including large animals, ambulatory clinics, and EPT, are always supervised by teachers and/or EPT providers. Inspired by the suggestions made by the EAEVE Visiting Team in 2011, the strategic objective of the SBVM-bVM is that animals and animal material reflect the diversity of animal patients treated in the SACD and LACD and examined in the Pathology Laboratory (Tables 5.1.2 and 5.1.3). The necropsy workload has been further increased, thanks to the referral cases sent to the animal pathology section from the Marche Region and from other Italian regions, both for necropsies and gross pathology diagnostics.

Specific strategy of the Establishment aimed at ensuring that each student receives the relevant core clinical training before graduation

In the SBVM-bVM, the organisation of the DCVM is structured in such a way as to guarantee adequate training of the students, thanks to four factors: the relatively limited number of students; the organisation, for each year of the DCVM, of frequent brainstorming (at least one per semester), involving the teachers of the semester and the students enrolled in that year (CYCCs, see Substandards 1.2 and 3.1), for the collective evaluation of the quality of activities provided; a constant evaluation of the opinions expressed by students regarding the quantity and the organisation of teaching activities, both theoretical and practical; the summoning of a DCVM Council every semester in order to collect all the reports of the single CYCCs and improve the alignment of the different years. In case of a manifested dissatisfaction of the students regarding the theoretical and/or practical activities, the Teacher/Student Joint Committee (TSJC) is also involved. Finally, regarding the organisation of hours of practical clinical activity in order to define and manage clinical rotations and first-aid services (night duties), monthly meetings are held in VTH, involving all those who participate in the different services (Medical Director, academic staff, DVMs, research fellows, student representatives, and technicians). The room for improvement in student education is then discussed with the Heads of the clinical units, and relevant actions are taken. Currently, also thanks to the first-aid service, the number of patients is considered sufficient for students to receive the relevant core clinical training, taking into account a balance between first opinion and complex referral cases. Collaboration with external practitioners and clinics significantly extends the first opinion cases available to students. For large animals, this is also provided by collaboration with practitioners and agreements with farms (Tables 5.1.7 and 5.2.1). All students are trained on all relevant domestic animal species. In addition to practical training, the theoretical background of the clinical records is considered and discussed. The VTH and the teachers involved in subjects which entail a direct approach to animals (zootechnical subjects, pathological anatomy and necropsies, avian pathology and infectious diseases), are responsible for providing adequate practical training. Clinical rotations are organised in small groups of maximum six students, who rotate between

different units, according to a fixed schedule. These groups may be further divided into smaller groups, supervised by teachers belonging to the discipline involved.

Procedures applied to ensure the welfare of animals used for educational and research activities

As already specified in Substandard 5.1, the SBVM-bVM has adopted the European philosophy of the 3Rs as regards the welfare of animals used for both, research and teaching purposes. In this respect, UNICAM instituted the AWB, a body operating in compliance with Legislative Decree No. 26 of 4 March 2014, which implements Directive 2010/63/EU. All projects of both, educational and research nature, in which animals are used in a way that goes beyond strictly necessary medical treatment and care, or routine observation that does not involve procedures defined by the legislation as “experimental” (e.g. blood sampling, clinical practices involving the use of needles, restraint of animals in such a way to create discomfort, pain, or malaise) are based on good scientific practice approved by the AWB.

This Committee evaluates the submitted applications from a legal, statistical, and scientific point of view, and its main role is to advise on how to best implement the principles of the 3Rs (refinement - reduction - replacement). To this purpose, the AWB (which includes some private practitioners, professors of the SBVM-bVM, researchers and professors from other Faculties of UNICAM and DVMs specialised in animal laboratory medicine), also offers project-independent evaluations or individual consulting and services on request. Pursuant to Italian Legislative Decree No. 26/2014, the preliminary AWB evaluation of every research project involving animals is mandatory before the final evaluation by the Ministry of Health. AWB evaluates projects of UNICAM researchers, but it may also support private companies working in the field of AWB. In accordance with the 3R principles, researchers are continually invited to reuse, when possible, carcasses or samples of animal materials already used for teaching activities of anatomy, pathological anatomy, and autopsies, and for the practice in surgery (carcasses), both for undergraduate and postgraduate student courses. These initiatives may contribute to the reduction in the number of animals killed for research purposes or used exclusively for a single teaching activity.

How and by whom is the number and variety of animals and material of animal origin decided on, communicated to staff members, students and stakeholders, implemented, assessed, and revised

Same as for all the DCVMs in Italy, the number of students who may enrol in the UNICAM course is fixed by the MUR (*numerus clausus*) (see Substandard 3.1). This programmed number responds to a precise strategy of the MUR, in agreement with the Ministry of Labour and Social Policies. This procedure is based on Ministerial Decree, which became Law on 2 August 1999 (Law No. 264 of 2 August 1999). This Law establishes the introduction of a limited number for most of the faculties of a scientific nature, in relation to the capacity of the facilities to accommodate the students, the availability of the teachers, and the possibility of carrying out workshops and practical teaching lab lessons in small groups. Another important goal of this legislative measure is to limit the places available for different reasons, but mainly in order to avoid that a too high number of students per VEE compromises the quality of teaching, and to try to reduce the number of graduates, according to the real needs of the labour market.

The number of students to be enrolled in the DCVM at the SBVM-bVM is therefore negotiated each year with the MUR, on the basis of several parameters: the number of patients seen in the clinics, the capacity and available space of the premises, the real needs of the Region, in terms of veterinarians, according to livestock concentration, needs of the Regional Health Services, etc., also taking into account the suggestions given by the Steering Working Group (see Substandards 1.2 and 1.5).

The annual negotiation of student number involves the Coordinator of the Conference of Directors of the Italian VEEs, the MUR, the Ministry of Health, the Representatives of Regions, and the professional associations (Italian Federation of Professional Veterinary Associations – FNOVI, and National Association of Italian Veterinarians - ANMVI) (see Substandard 7.2). The different Sections (i.e. Animal Pathology, Infectious Diseases, etc.), and the VTH are responsible for the

adequacy of animals and material of animal origin used for preclinical and clinical training, in order to comply with the ESEVT indicators. The number and the type of patients or animal material, as well as financial income, are regularly monitored by the Management of the VTH and by the Heads of Diagnostic Services of Animal Pathology and Infectious Diseases. Detailed reports are then drafted by the Administration of UNICAM (see Substandard 2.2). After covering School and University overheads, the remaining income financed by third-party services returns to the generating sectors, thus actively contributing to the research activities of the School. Periodically, positive or negative quantitative variations of services (number of clinical cases and pathological samples) performed are analysed, and the results are discussed within the sector (VTH, Diagnostic Pathology, and Infectious Diseases). Measures are then implemented (e.g. increase in staff resources and/or prices, closer communication with reference veterinarians, agreement on the objectives to ensure a sufficient number of patients in the personnel evaluation interview). Annex 5.1 exhibits a flow chart describing the decision-making mechanism and the evaluation of the number of cases to be used for teaching, so as to guarantee an adequate amount for each student.

How cadavers and material of animal origin for Anatomy and Pathology training are obtained, stored, and destroyed.

Anatomy

The SBVM-bVM obtains cadavers and material of animal origin for Anatomy training primarily from internal sources. Body parts and organs from different animal species (horses, cattle, swine, sheep, goats, and poultry) are also purchased through some slaughterhouses, or even through butchers or supermarkets. Dead small animals are initially stored in the clinic, and then promptly transferred to the Dissection room (Block 4, see Substandard 4.1 and Annex 4.1, Plan 5c). The new Dissection room for anatomical activities is a well-equipped facility, with a cold room for the storage of both, cadavers and organs. This was implemented on the basis of the suggestions given by the EAEVE Commission during the 2011 visitation, since the old anatomical room did not guarantee high comfort and teaching standards. The storage of teaching material (animals and organs) is therefore guaranteed by freezing, but also by means of a variety of anatomical preparations made in the past years (muscle preparations, wax preparations of different systems, skeletons of small and large animals), kept in the Anatomy room. As described in Substandard 5.1, attempts are currently being made to limit the number of cadavers and organs used in Anatomy teaching, also using 3D models and alternative methods. The section of Animal Pathology is responsible for the disposal of material deriving from Anatomy activities, through a specialised company.

Pathology

Only 30% of the material used for teaching (e.g. carcasses, organs or tissue samples) comes from the VTH. The Animal Pathology service is based, for about 50% of its activity, on the material (carcasses and organs) from external subjects (practitioners, private clinics, and laboratories), also including farms and slaughter plants. Twenty percent of the teaching material comes from kennels and catteries located in the Marche Region. From their arrival, until *post-mortem* examination, dead animals are stored in the dedicated cold room, accessible from the Pathology Dissection room. Organs and parts intended for practical activities to be performed in the following days are also stored in this refrigeration room. Some dead animals delivered from external sources (in cases when timely diagnosis is not required, after consultation with the senders) are stored in freezers, in order to always have sufficient material available for exercises in pathology. Disease-proof disposal is carried out by an external specialised company, (ECO ERIDANIA S.p.A). Animal carcasses and body parts are stored in containers provided by the company, and collected regularly. Alternatively, upon explicit request of the owners, the carcasses of small animals are delivered to an animal burial or cremation agency, after the autopsy. In some cases, organs or body parts for covering the activities of Topographic Anatomy or clinical activity, are also delivered to the Animal Pathology service, for teaching and research purposes. Carcasses and body parts received by the Pathology section are never returned to private individuals, nor reused for practical activities in other disciplines.

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

Species	AY 2019/20 ⁽¹⁾	AY 2018/19	AY 2017/18	Mean
Cattle	1 skeleton ⁽²⁾	1 skeleton ⁽²⁾	1 skeleton ⁽²⁾	12.7
	1 digestive apparatus	1 “corata” ^{(3) (4)}	1 “corata” ^{(3) (4)}	
	1 reproductive apparatus ♀	1 reproductive apparatus ♀ ⁽⁴⁾	1 digestive apparatus ⁽⁴⁾	
	1 reproductive apparatus ♂	1 reproductive apparatus ♂ ⁽⁴⁾	2 trachea and lungs ⁽⁴⁾	
	1 trachea and lungs	8 kidneys ⁽⁴⁾	3 hearts ⁽⁴⁾	
	1 heart	4 hearts ⁽⁴⁾	1 kidney ⁽⁴⁾	
	1 kidney	1 liver ⁽⁴⁾	1 liver ⁽⁴⁾	
	1 brain	1 lung ⁽⁴⁾	1 lung ⁽⁴⁾	
	1 eye			
Small ruminants	1 digestive apparatus	12 skeletons ⁽²⁾	12 skeletons ⁽²⁾	28
	1 reproductive apparatus ♂	1 “corata” ^{(3) (4)}	1 “corata” ^{(3) (4)}	
	1 trachea and lungs	7 reproductive apparatus ♀ ⁽⁴⁾	1 digestive apparatus ⁽⁴⁾	
	1 heart	3 reproductive apparatus ♂ ⁽⁴⁾	2 reproductive apparatus ♀ ⁽⁴⁾	
	1 kidney	6 trachea and lungs ⁽⁴⁾	2 reproductive apparatus ♂ ⁽⁴⁾	
	1 brain	4 prestomach and intestine ⁽⁴⁾	1 kidney ⁽⁴⁾	
		20 kidneys ⁽⁴⁾	1 lung ⁽⁴⁾	
	4 hearts ⁽⁴⁾			
	1 lung ⁽⁴⁾			
Pigs	1 digestive apparatus	2 reproductive apparatus ♀ ⁽⁴⁾	1 digestive apparatus ⁽⁴⁾	15
	1 reproductive apparatus ♀	6 trachea and lungs ⁽⁴⁾	5 livers ⁽⁴⁾	
	1 heart	8 kidneys ⁽⁴⁾	1 lung ⁽⁴⁾	
	1 kidney	6 livers ⁽⁴⁾	6 spleens ⁽⁴⁾	
		1 lung ⁽⁴⁾		
	5 spleens ⁽⁴⁾			
Dogs	1 whole body	9 whole bodies	8 whole bodies	6
Cats	1 whole body	8 whole bodies	8 whole bodies	6.3
	1 reproductive apparatus ♂			
	1 vascular apparatus			
Equine	1 whole body	1 skeleton ⁽²⁾	1 skeleton ⁽²⁾	2.3
	1 skeleton ⁽²⁾	1 lung ⁽⁴⁾	1 lung ⁽⁴⁾	
	1 digestive apparatus			
Poultry and Rabbits	1 whole body (poultry)	2 whole body (poultry)	4 whole bodies (poultry)	5.3
		6 hearts (poultry) ⁽⁴⁾		
		3 hearts (rabbit) ⁽⁴⁾		
Exotic pets	1 whole body pigeon	3 parrots	3 parrots	3
	1 whole body perch			
	1 whole body shark			

⁽¹⁾ During the second semester the training has been performed using videos.

⁽²⁾ Additional material, being bones, skeletons and fixed muscles of different species permanently available in the anatomy room.

⁽³⁾ Trachea, oesophagus, lungs, heart, diaphragm, liver and spleen joined by their natural anatomical connections.

⁽⁴⁾ Training performed using material purchased by the teacher in butcher’s shops or slaughterhouses.

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

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Cattle	0	40	40	26.7
Small ruminants	30	40	40	36.7
Pigs	2	28	30	20
Dogs	0	5	5	3.3
Cats	0	0	0	0
Equine	0	30	30	20
Poultry, Pigeons, Rabbits	0	40	40	26.7
Exotic pets	0	0	0	0
Others (<i>Fishes and Laboratory mice</i>)	22	43	43	36

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

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Cattle	3	5	7	5
Small ruminants	3	3	4	3.3
Pigs	3	2	2	2.3
Dogs	1,611 (967) ⁽¹⁾	1,598	1,955	1,506.7 ⁽²⁾
Cats	554 (332) ⁽¹⁾	515	400	415.7 ⁽²⁾
Equine	108 (65) ⁽¹⁾	136	114	105 ⁽²⁾
Poultry and Rabbits	26 (9) ⁽¹⁾	16	10	11.7 ⁽²⁾
Exotic pets	11 (7) ⁽¹⁾	3	6	5.3 ⁽²⁾
Others (<i>aquatic anim., rabbits, birds</i>)	2	4	5	3.7

The number of patients listed in Table 5.1.3 reflects the total number of animals treated in the clinics, or housed in the visited premises. It includes all cases of outpatient and inpatient services provided by at least one clinical unit of the VTH during the selected period. If a patient is admitted to different clinical services, this case is counted several times as a patient contact, namely for each clinical service that admitted the patient. The cases admitted, even if the admission was carried out by different doctors responsible for different clinical activities (Clinical Obstetrics, Clinical Surgery, and Internal Medicine) are all extrapolated from the ARGO system, which is used for the management of all incoming records (see Substandard 5.4). Not all of these patients may be individually examined and treated by a student.

⁽¹⁾ Due to the emergency status related to the COVID pandemic, an estimated percentage of animals (about 60%, reported in brackets) has been directly available for teaching purpose in the AY 2019/20, due to the prohibitions for students to attend VTH activities during the lockdown. However, clinical records of animals are all available for student consultation.

⁽²⁾ Means are calculated considering only the estimated cases effectively available for teaching purposes in the AY 2019/20 (60%).

Table 5.1.4. Number of patients seen extramurally (in the ambulatory clinics).

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean ⁽¹⁾
Cattle	0 ⁽²⁾	391	1,509	950
Small ruminants	0 ⁽²⁾	287	322	304.5
Pigs	0 ⁽²⁾	93	78	85.5
Dogs	0 ⁽²⁾	86	36	61
Cats	0 ⁽²⁾	0	0	0
Equine	- ⁽³⁾	71	60	65.5
Poultry and Rabbits	0 ⁽²⁾	200 ⁽⁴⁾	200 ⁽⁴⁾	200
Exotic pets	0 ⁽²⁾	0	0	0
Others	0 ⁽²⁾	0	0	0

The number of patients listed in Table 5.1.4 reflects the total number of animals treated in the clinics or housed in the visited premises. It includes all cases of outpatient and inpatient services provided by at least one clinical unit of the VTH during the selected period. If a patient is admitted to different clinical services,

this case is counted several times as a patient contact, namely for each clinical service that admitted the patient. The cases admitted, even if the admission was carried out by different doctors responsible for different clinical activities (Clinical Obstetrics, Clinical Surgery, and Internal Medicine) are all extrapolated from the ARGO system, which is used for the management of all incoming records (see Substandard 5.4). Not all of these patients may be individually examined and treated by a student.

⁽¹⁾ The mean is calculated excluding the AY 2019/20.

⁽²⁾ All extramural activities planned within the Intensive Weeks to be held from March to May have not been carried out

⁽³⁾ Some activities have been performed within research activities, in which small groups of students have been allowed to participate during the execution of diagnostic imaging procedures.

⁽⁴⁾ The value is an estimation based on the number of herd visitations performed by students during the year.

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

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Cattle	100	50	50	66.7
Small ruminants	100	75	75	83.3
Pigs	100	75	75	83.3
Dogs	50	50	50	50
Cats	50	50	50	50
Equine	90	90	90	90
Poultry and Rabbits	100	50 ⁽¹⁾	50 ⁽¹⁾	66.7
Exotic pets	100	0	100	66.7
Others	0	0	0	0

⁽¹⁾ The value is an estimation based on the number of herd visitation performed by students during the year.

Table 5.1.6. Cadavers used in necropsy.

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Cattle	0	2	5	2.3
Small ruminants	4	2	21	9
Pigs	0	38	22	20
Companion animals (dogs and cats)	32	62	62	52
Equine	2	7	5	4.7
Poultry and Rabbits	4 ⁽¹⁾	30	22	18.7
Aquatic animals	0	6	6	4
Exotic pets	35	24	55	38
Others	-	-	-	-

⁽¹⁾ For “Avian and rabbit pathology” course only simulated online practice has been performed.

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

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Cattle	2	5	5	4
Small ruminants	1	4	4	3
Pigs	1	2	2	1.7
Poultry	0	4	4	2.7
Rabbits	0	0	1	0.3
Aquatic animals	0	1	1	0.7
Others (bee)	0	1	1	0.7

As mentioned in the relevant part of Substandard 3.1, during the 3rd year course in Food Hygiene and Technology, students are divided into groups, and perform practical activities aimed at drawing up a HACCP plan referred to a specific food produced by a food processing plant (FPP), from among those with which the School has an agreement. Among other things, the programme of activities includes a visit to the factory for the verification of the prerequisites and the flowchart, and for the collection of product samples for their characterisation (Aw, pH, % of NaCl), carried out in the chemistry laboratories of the SBVM-bVM. These activities for the period of evaluation are listed in Table 5.1.8.

During the 4th year course in Food Inspection, Control, and Certification, practical activities are also performed, in small groups, and carried out on both, fresh and processed products. With reference to fresh meat inspection, students perform post-mortem inspection of carcasses and viscera from cattle, small ruminants, pigs, equines, and poultry, both at the School and at slaughterhouses. For these organs, students have to express their judgments on the release for human consumption, related to food legislation, after detailed examination and discussion with the teacher. Viscera are collected from different slaughterhouses, brought to the Inspection room of the SBVM-bVM, and stored in the cold room or freezers located in that room, depending on the scheduled use. An average amount of 730 kg of viscera per year is used for such practical student activities (Annex 5.2). With reference to legislation and inspection of both, fresh fish products and processed food of animal origin, students attending the 4th year, also perform the following practical activities: freshness evaluation of differently stored/preserved crustaceans (three different subjects for each subgroup of 2/3 students, for an average amount of about 4 kg per year); freshness evaluation of differently stored fish (two fish for each subgroup of 2/3 students, for an average amount of 7 kg per year); inspection and evaluation of suitability for human consumption of different processed meat products (one product for each subgroup of 2/3 students, for an average amount of about 4 kg per year). Fish, crustaceans and processed products are purchased from the market, directly by the teacher, and prepared for the activities.

Unfortunately, the teaching slaughterhouse for domestic ungulates built by the municipality of Matelica, mainly for the School's needs, was never completed because no company available to manage the plant was found, mostly due to the economic crisis and to the seismic events of 2016 and 2017. This represents a major problem that probably will not be solved in the near future. In order to compensate this lack, agreements with slaughterhouses have been signed, so as to allow the students to carry out visits and practical activities in FSQ (details are given in Annex 5.2). If necessary, more agreements may be signed in order to allow students to carry out practical activities, following the procedure published at: <http://www.unicam.it/stage-placement/attivazione-stage-e-tirocini>. Furthermore, different materials from slaughterhouses and related buildings are brought to the SBVM and used for practical activities in FSQ (details are given in Annex 5.2). Description of the practical activities in FSQ is given in Substandard 3.1.

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

Species	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Ruminant slaughterhouses	1	2	2	1.7
Pig slaughterhouses	1	2	2	1.7
Poultry slaughterhouses	0	1	1	0.7
Related buildings ⁽¹⁾	2 ⁽²⁾	3 ⁽³⁾	3 ⁽³⁾	2.7

⁽¹⁾ Buildings for the production, processing, distribution or consumption of food of animal origin.

⁽²⁾ One cheese factory and one meat processing plant.

⁽³⁾ One cheese factory and two meat processing plants.

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

Organisation and management of the external sites, and student involvement in their operation

The SBVM-bVM does not have its own farm where students could perform their practical activities on production animals (dairy and meat cattle, pigs, sheep, poultry, and rabbits). Nonetheless, despite the economic crisis, the presence of a purely rural economy in the Marche Region, in which the SBVM-bVM insists, allows students to benefit from some farms under agreement with the School, where they can perform practical activities on animals. The list of farms under agreement with the SBVM-bVM in the last three AYs is given in Annex 5.3. On these farms, students are able to perform practical activities included in the curriculum (see Substandard 3.1). All farms offer enough space for students and supervisors to work as a team. The activities, supervised by academic staff members, or by EPT providers, deal with practical training in genetics, housing techniques, animal breeding, health, welfare, nutrition, and hygiene. All practical activities performed on the farms are aimed at acquiring the Day One Competencies, registered in the personal logbook of each student. Apart from the practical training in handling and management of farm animals, students are also involved in routine work (e.g. milking techniques, feeding, data analysis). In the AY 2019/20, some beehives and two families of bees were purchased, and a small apiary was settled, in order to fill a gap in the SBVM-bVM, pointed out by the Steering Working Group, and suggested by the Visiting Team in 2011. This facility is located in the park of the San Sollecito building (Block 1), and will be used for teaching and research activities. As previously mentioned, (Substandard 3.1), students perform 5 ECTS credits (125 hours) of *Tirocinio* in animal production during the 2nd year of the course, during which they learn practical aspects of animal rearing and management techniques, morphological evaluation of animals, animal feeding, product quality, and animal welfare. The *Tirocinio* in Animal Production gives students the possibility to be involved in the production cycle adopted by farms rearing food-producing animals, as sheep, cattle, pigs, poultry, fish species, as well as in horse management. In relation with sheep production, students may choose between different farms, specialised in milk production and breeding different breeds for this purpose, such as “Sarda”, “Leccese” and “Appenninica” breeds. On these different farms, students learn how to carry out mechanical milking (both, in the early morning, and in the evening, before and after attending classes, respectively), and how to manage animals in the waiting area. They also check the animals at pasture, and evaluate their Body Condition Score (BCS).

As regards cattle production, students have the possibility of choosing between three farms, with around 300 lactating Italian Friesian cows, and two farms breeding dairy buffaloes, where they learn how to carry out mechanical milking, and how to evaluate BCS.

As regards pig farming, a farm producing heavy swine (Azienda Carlo Dracini - Terricoli, Matelica) allowed the students to follow the rearing of pigs, from the first phases to the end of weaning, with periodic monitoring of body weight and growth rate. Unfortunately, this farm closed definitively in 2018.

As regards poultry species, students have the possibility to carry out their practical work on two farms involved in different productions: the organic line of chicken production, and the traditional chicken line. Students may carry out these activities especially on some farms that work in consortium (*soccida*) with the Fileni company; this company is the third national operator in the poultry sector, and the first producer in Italy of white meats from entirely biological farming. Its farms produce about 1,200,000 chickens/year, which follow the closed cycle chain, from the hatchery to the slaughterhouse, and the processing of derived products.

As for eggs, for many years the students were able to carry out their practical and *Tirocinio* activities at the Monaldi breeding farm (Azienda Monaldi, Petritoli, province of Fermo), which belongs to the most important poultry egg hatcheries in Central Italy, producing over 18 million of chicks/year. The relationship with this company was interrupted in 2018, after the earthquake. Actually, the students

carry out their practical activities in hens farming for egg production and processing on another farm (Avicola Maratta, Sant’Ambrogio sul Garigliano, province of Frosinone). In the hatchery, students monitor the environmental parameters in the different sectors of the hatchery chain, determine the hatchery rate and number of dead embryos evaluate quality and sex of chicks, and help with vaccination procedures. In the latter farm, students help weighing hens, monitoring temperature and relative humidity of the house, controlling photoperiod, verifying the proper functioning of drinking devices, and evaluating litter quality.

The *Tirocinio* in fish productions is conducted in one of the most important trout farm of Italy (Azienda Agricola Erede Rossi Trote, Sefro, province of Macerata), producing rainbow trout, where students collaborate in the daily management of raceways, monitoring water quality, and checking the feeding and health status.

As regards horses, students carry out their training at two different horse centres (Circolo ippico “*Le Noci*”, and Circolo “*La Casa di Stefano*”), with about 30 horses belonging to Quarter Horse and Italian Saddle breeds. At these centres, students learn how to approach and restrain a horse, and are involved in practical daily activities (box management, monitoring of environmental parameters, and administration of feed ratio). They also collaborate in the training of animals in the paddock.

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.

How and by whom the nursing care skills are implemented and taught to undergraduate students.

The initial skills on how to approach an animal, how to manage it, how to carry out manipulations on the animal, and how to take a blood sample, are acquired by students already during the course in Physiology (2nd year, both, first and second semester), but also during the course in Animal Husbandry (2nd year, second semester). From the 3rd year on, during the clinical rotations and the practical activities envisaged for the teaching courses in Pathology and Pharmacology/Toxicology, students receive the basic training on how to carry out a general examination of the animal and drug administration, by the relevant teachers and clinical staff. Students acquire and improve nursing skills during other courses, such as Medical Pathology and Semeiotics (4th year, first semester), Andrology (4th year, first semester), Obstetrics (4th year, second semester), and Surgical Pathology and Semeiotics (4th year, second semester), during which they also perform clinical rotations at the VTH. During these activities, they are involved in the management of hospitalised animals, administration of therapies, and control of clinical daily status of patients (detection of temperature, cardio-respiratory rate, and major organic functions). These skills are mainly trained under the supervision of veterinarians on duty. As already mentioned (see Substandard 4.9), students have to attend a preliminary course on safety in working places (4 hours), and they have to read the safety manuals (“Laboratory safety guidelines” and “Guidelines for biohazard laboratories”) before starting practical activity in the laboratories during the 1st year. Furthermore, before starting their engagement in the clinics, they attend a refresher course on safety rules, and then participate in introductory events with guided tours (premises, work instructions, safety measures, safe containment of animals, hygiene) provided by the relevant teachers and the technical staff, during which they are trained to properly handle healthy and diseased animals.

Group size for the different types of clinical training (both intramurally and extramurally)

The group size takes into account the needs of single disciplines and space availability. The aim is to create a timetable that does not overlap among groups and disciplines. Generally, for all activities planned in the various semesters, the groups never exceed 6 persons, and only occasionally the

groups may be composed of 6 students. Where larger groups (maximum 10-12 students) are involved, subgroups of 2-4 students are arranged during the activities.

Table 5.3.2. Types and group sizes for clinical training.

Types of clinical training	Number of students per group
Internal Pathology and Semeiotics	5-6
Surgical Pathology and Semeiotics	5-6
Obstetrics and Clinical Obstetric	5-6
Clinical Rotations	2/4-6 ⁽¹⁾
Consulting rooms	3
Intern undergraduate students ⁽²⁾	1-3
Extramural practical training	3-6

⁽¹⁾ 2 students in the ICU/Emergency Unit or night service, otherwise 4-6 students.

⁽²⁾ Students who write their graduation thesis in clinical areas must spend at least six additional months at the VTH, and are called "undergraduate interns".

Hands-on involvement of students in clinical procedures on the different species

At the beginning of clinical training, students are introduced to the Code of Conduct. This includes protective clothing, biosecurity and biosafety procedures, and specific organisation of the respective activity. Apart from the training, which students receive in terms of safety and security, the relevant manuals are available in written form, on all premises in which activities are carried out, and are also available online (in Italian and in English at <http://www.unicam.it/ateneo/linee-guida-operative-la-gestione-di-rifiuti-speciali-pericolosi-e-la-sicurezza-nei>) (see Substandard 4.9). Where appropriate (e.g. during farm visits, when entering or exiting isolation facilities, necropsy room, etc.), specific biosecurity procedures should be performed, according to specific instructions (e.g. the Farm Biosecurity manual at farm level). After the initial training in clinical skills, performed on cadavers (e.g. endotracheal intubation, intravenous catheterisation, suturing techniques, blood sampling, anaesthetic machine setting, use of anaesthesia monitoring equipment, aseptic preparation, and washing), students are involved in routine clinical work, and are required to perform all permitted practical procedures, under the guidance and supervision of clinical teachers. Small groups of students are assigned to different services, and involved in daily medical care, including surgery, intensive care, anaesthesia, reproductive procedures, emergency case management, and hospitalised patients. They are involved in communication with the client, review of medical history, drafting of case reports, clinical exams, diagnostic and therapeutic procedures, developing diagnostic plans, treatment plans and documentation. Students are trained in reproductive and obstetric treatments, including caesarean sections and castrations. Eventually, students take part in decision making and euthanasia, where needed. In farm animal clinics (ruminants, pigs, poultry), students are involved in farm visits, herd health service, and herd investigations, including autopsies, and diagnostic and laboratory tests. Students participate in numerous farm visits during clinical rotation and during the *Tirocinio* activity in Animal Production. As for Pathology, students first learn and practice the methodology of animal autopsy and the basics of organ evaluation. They are then able to interpret *post-mortem* findings also on the basis of the animal's clinical history. Finally, during the activities of the "Intensive Weeks" (see Substandard 3.1), the students participate in daily Diagnostic Pathology for a week, in small groups, conducting autopsies under the supervision of the teacher, collecting macroscopic, cytological, and histological findings, interpreting them, and summarising them in a report for the group discussion.

Extramural training is always supervised by a teacher from the SBVM-bVM. Therefore, student involvement is the same as in intramural training. Only trained and paid veterinary practitioners are allowed to supervise extramural practical training. To ensure that all such training is qualified, the SBVM-bVM offers specific guidelines, which explain the basics of teaching and evaluation, through

dedicated e-learning courses (see Substandards 6.2 and 9.2.). As for the 10 intensive-weeks, part of the Day One Competences listed in the students' personal logbook is certified during these activities.

Procedures used to allow all students to spend extended periods discussing, thinking and reading, so as to deepen their understanding of the clinical case and its management

Students deepen their critical thinking and understanding of case management in several problem solving-based activities (e.g. infectious diseases, clinical rotations, clinical demonstrations, seminars, and journal clubs). These skills are improved through case presentations and supervised independent self-learning activities, performed in many courses, and discussions on relevant scientific publications. Students are thus involved in clinical shifts and participate in the internal discussion of cases in the various clinical units. Furthermore, starting from the 3rd year, during the General Pathology and Physiopathology course, as well as during the Toxicology and Oncology, and Cardiology courses, but also during the clinical training (4th and 5th year), students are responsible for specific cases that they must present to other students and clinicians. These presentations outline diagnostic strategies, differential diagnosis, pathogenesis, prophylaxis, and treatment of the relevant case. In addition, students get access to specimens and diagnostic findings from Pathology and different laboratories, which they have to discuss with clinical lecturers. They discuss their own reports with their peer group and supervisor, in order to encourage critical clinical thinking. All relevant literature on special diseases, management, nutrition and hygiene, is available via the SBVM-bVM Library (see standard 6).

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

Patient record system, its completion and availability to staff and students, and its use to support teaching, research, and service programmes.

Starting from December 2020, the management system of the clinical data of each hospitalised patient has been completely modified and digitalised, so that students may have the possibility to consult the medical records of each patient and evaluate all types of instrumental examinations that have been carried out (haematological and biochemical profile, diagnostic imaging with radiographs and ultrasound scans, CT scans, or magnetic resonance, and results of cytological or histopathological reports). The purpose of the new operating system, called "ARGO", is to improve the quality of the service offered to the patient, by reducing the clinical risks (loss of data, difficulty in having a quick view of all the analyses carried out on the patient, even during previous clinical visits), but also the possibility of digitising all the paper material and images that were present in the various archives, inserting them in the different medical records. The web-based system uses a SQL-Server relational database, managed on an intranet, which allows the registration and cataloguing of all information regarding acceptance, and reporting on the biological material to be analysed, and diagnosis. In addition, any medical-type images managed by a Pacs server are loaded. All information, except that covered by a privacy policy, if any, may be consulted and used through a parameterised search that can be used for study and teaching. Furthermore, this portal is also being prepared for access from the outside on the internet, with accreditation and profiling of roles, such as *Teacher*, *Student*, etc. ARGO is a suite that may be used via a browser (*Edge*, *Google Chrome*, *Mozilla Firefox*), without having to install anything on the clients' end, thus reducing and simplifying the maintenance, and/or updating of the system. The suite is a totally open system that may be easily integrated with external systems, in compliance with the international standard HL7. In order to complete the information concerning the patient, the ARGO suite is integrated with both, laboratory analysis tools, and diagnostic image archiving systems for images.

ARGO also manages the information of hospitalised animals, managing the folder in its entirety: clinic, nursing diaries, and patient clinical diaries. It is also possible to insert and archive the reports for each specialist, by inserting the documents within the patient's health record. Information on clinical cases seen extramurally will be also available when the upgrading of the software is completed.

Comments on Standard 5

The number of animals and materials of animal origin is sufficient for pre-clinical and clinical training. The SBVM-bVM strives to maintain these numbers, and continuously checks if the number and variety of cases are still sufficient and appropriate for teaching purposes.

Animal welfare is a major concern. Therefore, the SBVM-bVM, according to the UNICAM policy, aims to keep the number of animals used in initial skills training to the necessary minimum. The SBVM-bVM therefore endeavours to constantly involve students from the various semesters in the clinical routine of the VTH (SACD/LACD), throughout the year.

According to previous final report written by ECOVE, and in attempt to maintain the situation, evaluated as well, regarding animal resources and teaching material of animal origin, in the last eight years, the students' activities with animals have been maintained and, where possible, incremented, despite the fact that the problems linked to the earthquake have strongly changed the possibilities of having farms available for extramural activities. Nevertheless, new agreements have been made, and new farms have been contacted, even if very distant from the SBVM-bVM headquarters, in order to guarantee practical activities with animals for the students. In the last years, a practical training in food-producing animals (farm animals), with regard to breeding and genetics, morphological evaluation, nutrition, rearing techniques, and animal welfare, on live animals in contracted farms, has incremented. In addition, animal shelters are also included in cooperative agreements, so as to allow the students to carry out practical activity on nutrition and management of dogs and cats, as well. All students practice handling of different farm animal species, and learn herd and farm management, especially during the Tirocinio in Animal Production (2nd year), but also during the Tirocinio in Internal Medicine (5th year), during clinical practical activity (4th year), and during 8-week on-farm services on contracted farms.

Unfortunately, the teaching slaughterhouse was never completed, because no company available for its management was found due to the economic crisis and the consequences of the 2016 and 2017 earthquakes. This represents a major problem that probably will not be solved easily in the near future.

Compared to the previous EAEVE visitation in 2011, and according to the suggestions of the visiting Team, the number of technicians in the sectors of Infectious Diseases and Pathological Anatomy have been increased in two units, although only temporary. However, this has made possible to facilitate practical activities with the students. Furthermore, the specialist service of Ophthalmology and Oncology, and the Centre for Equine Reproduction have been activated, and the ICU, with its emergency service, became fully operative. All these improvements increased the number of clinical cases (dogs, cats, and horses), approached by the students.

In Pathological Anatomy activities, formaldehyde is still used, albeit in a reduced form, to fix necropsy samples for histopathological examination. The use of formaldehyde in teaching needs to be avoided, as the legal basis for the use of formaldehyde has been changed. However, the doctor responsible for the safety of workers at UNICAM has been consulted specifically to evaluate the risks and to manage this critical point. Considering that the contact of students with formaldehyde is extremely infrequent, and that the only practical activity involving formaldehyde is carried out by wearing masks and by working in a chemical hood, the use of formaldehyde has been considered not critical for students' health.

Comments on Standard 5 related to the COVID-19 pandemic

During the first COVID-19 emergency (March-May 2020), the face-to-face lessons have been replaced with on-line lessons. In this situation, practical activities have been replaced with computer-based work, where possible. In other cases, including practical activities or EPT, activities have been postponed for after the end of the lockdown, according to national laws. All face-to-face services have been replaced with online services.

The health emergency led the SBVM-bVM to review the number of students included in each group for all the practical activities that took place in the School, reducing each group to a maximum of 4 students, also depending on the surface area and the possibility of ventilation of each room or laboratory. Specific rules have been established by the UNICAM Rector. Consequently, each teacher had to repeat the same practical activity more times than usual, with consequent overwork.

The extramural activities and the number of clinical cases seen intramurally and extramurally were reduced, because of the compulsory lockdown. However, clinical activities at the VTH were never discontinued during the lockdown, and all information about the clinical cases seen, including all diagnostic images recorded, are accessible to students for the consultation. Furthermore, after the first lockdown, environmental microphones and webcams have been bought to demonstrate the clinical cases to students who could not frequent the VTH.

Suggestions for improvement as regards Standard 5

According to the laws and recommendations on animal welfare and in order to keep the number of animals used in initial skills training to the necessary minimum, the use of e-learning and 3D simulators or lab dummies, in particular for the teaching of Anatomy and Topographical Anatomy, or for some specialties, such as Endoscopy and/or some obstetric evaluations (pelvimetry and trans-rectal exploration), should be encouraged.

Considering that students carry out many practical activities externally, it is important to monitor and increase the number of contractual agreements between the SBVM-bVM and external farms, facilities, slaughterhouses and related buildings, that could offer the students opportunities to enhance practical activities, and to apply the knowledge acquired during the training performed at various farms. In particular, practical teaching on poultry and rabbit medicine and production should be implemented by reaching more agreements with producers of those animal species. These suggestions are very important to maintain the actual good balance between theoretical and practical teaching (especially in the clinical area), very appreciated during the previous EAEVE visitation.

In order to assure adequate assistance during practical activities, it would be necessary that the temporary technician positions become permanent and, hopefully, more job positions will be obtained through the allocation of appropriate economic resources by the University. This would also be necessary to maintain the specialist Ophthalmology, Oncology, equine reproduction, and emergency services.

Formaldehyde should be eliminated as much as possible from the processing activities of pathological samples, and therefore the commitment has been made to replace formaldehyde with other fixative liquids or alternative substances. The Animal Pathology sector has already started looking for alternative ways of fixing samples to replace formaldehyde, although there is no easy solution, because of the lack of proper reagents on the market. Anyway, the use of formaldehyde in the SBVM-bVM has been recently considered not a risk factor by the UNICAM Office for Prevention and Protection, due to the small amount used. Furthermore, students almost never come in touch with this substance.

STANDARD 6 - LEARNING RESOURCES

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

General strategy of the Establishment on learning resources

The Library of SBMV-bVM has been established in the present arrangement in 2010, as support for educational and research purposes to meet the School's objectives, consisting in supplying methodological, cultural, scientific, and technical bases for professional practice and development, and satisfy the institutional users, represented by all staff levels, undergraduate and postgraduate students of the School, and other Schools of UNICAM. According to specific procedures, which will be described further in the text, it can also be used by external users (practitioners, others): students, staff, and other figures belonging to scientific, educational, and cultural institutions UNICAM has stipulated specific agreements with, and all subjects who are accredited to use resources and services for study and research purposes (Art. 11 of the Regulations of the UNICAM Library System, available in Italian on the UNICAM website, at: <http://www.unicam.it/sistema-bibliotecario-e-museale>).

According to Standard 1.6 ("Learning resources and student support") of Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015 ("... Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided ..."), the new Quality Manual (QM) of UNICAM (Chapter 6.3 - "Management of infrastructures and work environments") provides that the University must have appropriate infrastructures for the achievement of established quality objectives, with particular reference to the learning-related ones (https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/MQ%20ISO%209001_2015%20ENGLISH.pdf). The training department must verify and control the following:

- for laboratories, computer classrooms, **libraries, and relevant equipment** available for practical activities or research and study:
 - their update, maintenance and adjustment status concerning safety standards
 - their accessibility (e.g. opening hours and access procedures, etc.)
 - their real availability to students (e.g. number of gears available for a given type related to the number of prospective users)
- specifically for **libraries**: the assets in terms of library materials (e.g. books and journals, periodicals, CD-ROMs, etc.) and equipment (e.g. word processing and data bank access devices, etc.), and their update status.

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

According to the Regulations of the UNICAM Library System (LS) and Museum System issued by Rector's Decree No. 128 of 1 April 2016 (available in Italian on the UNICAM website: https://biblioteche.unicam.it/sites/biblioteche.unicam.it/files/feeds/Regol%20Sist%20Bibl%20Mus%20per%20pubblicaz_0.pdf), the LS runs the education of users to the use of bibliographic resources, fosters training and update of the library staff, employing internal and external competent individuals. Thus, the Librarian and the other staff members of the library are available to students, to the staff of the SBVM-bVM, and to external users, to explain the procedures for access and use of learning resources, both in person and remotely (especially by e-mail). In this regard, the service

named “Chiedi @l bibliotecario” (ask the Libr@rian), also available for mobile devices (using the app ASKalibrarian), and a chat service (Bibliochat), are offered by the UNICAM Library System to all local and remote users, to ask simple questions related to Library services, book and resource location, suggestions about the use of online catalogue or other search instruments, completion of references, etc.

Furthermore, some lectures in several subjects (Infectious Diseases of Animals, Biochemistry, Parasitology, Epidemiology) also focus on how to access scientific databases and bibliographical resources. Seminars are offered to students and staff members, especially by the Librarian. Finally, students delve deeper into these matters during the preparation of their graduation thesis.

Decision, communication, implementation, assessment, and revision of the learning resources

At the central level, the Library of the SBVM-bVM refers to the LS of the UNICAM Division for Libraries, Documentary and Computer Services, which is one of the technical support Divisions (together with the Division for Construction, Maintenance, and Safety; the Technical-Scientific and Large Equipment Division; the Division for Infrastructures, IT Services, and e-Government; and the Museum Centre), which manage all technical, technical-scientific and logistic activities necessary for academic departments to operate. The detailed description of the organisation is reported in the Organisational Process Mapping Manual (Section 2.B “Technical-administrative organisation of the University - Organisational chart of technical-administrative structure and relationships with academic structures of the University”), available on the UNICAM website in the Quality and Evaluation Section (username and password needed). The Regulations of the LS and the composition of the Technical-Scientific Committee is available (in Italian) on the UNICAM website (at: <http://www.unicam.it/sistema-bibliotecario-e-museale>).

A Rector’s Proxy for the development and management of the LS, appointed by the Rector from among the teaching staff members, is also in charge of managing political and technical aspects. The LS is headed by a Director (appointed by the UNICAM Board of Directors), and supported by a Technical-Scientific Committee. The LS comprises a central Unit (“Coordination and Management of Centralised Processes”), and several Libraries and Service Points located in the different seats of UNICAM. The Library of the SBVM-bVM is one of them. At the local level, the Library is managed by a Librarian, who is supported by other staff members (see Substandard 6.2) and a Library Board. The Library Board is made up of three members (the Librarian and two members of the teaching staff), appointed by the School Council and, when necessary, it supports the Librarian in managing the issues and needs raised at different levels, by students and/or staff members (student Representatives, Course Year Coordination Committees, Teacher/Student Joint Commission, School Council, University Senate, etc.), to be faced and solved locally.

Depending on the type and cost, the acquisition of resources may be requested by teaching or technical staff directly to the Librarian (less expensive needs), or requested through and approved by the School Council (more expensive needs). Then, the Librarian or the Administrative Manager of the School submits the order to the Purchasing Area. As an example, paper textbooks and subscriptions to single paper journals are purchased directly through the Library. Electronic periodicals, e-books, database accesses, and service packages, in general are selected and purchased by UNICAM, which joins a consortium of several Universities for purchases. All subscriptions are renewed yearly. The suppliers are among the most important international ones (e.g. Elsevier and Wiley). Purchasing of books and other resources is made mainly through two intermediaries, one almost for monographs in Italian (Leggere), and the other for monographs in languages different from Italian (EBSCO). The procedure for the acquisition of learning resources (“Provision of teaching Resources”, step 3) is available on the UNICAM website, at: (<https://sgq.unicam.it/intranet/2019/documents/procedure-relative-al-manuale-qualit%C3%A0-unicam-2019>) in the Quality and Evaluation Section (username and password needed) concerning the “Procedures relating to the UNICAM Quality Manual 2019”.

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 Establishment's core facilities via wireless connection (Wi-Fi) and from outside the Establishment through a hosted secured connection, e.g. Virtual Private Network (VPN).

Main library of the Establishment

The Library of the SBVM-bVM is managed by a professional Librarian, who is a member of the Italian Library Association (AIB). The Librarian is supported by one (temporary) staff unit, and one or two part-time students (see Substandard 9.2), depending on the total number of part-time student positions available annually for the SBVM-bVM, for a total of 1.76 FTE.

Since the second half of 2019, the Library is open (for loan service also) 7 days/week, with the following opening hours: 8:00 a.m. - 7:00 p.m., from Monday to Friday; 9:30 a.m.- 1:00 p.m. and 3:00 p.m. - 6:00 p.m. on Saturday and Sunday. The annual budget for the entire Library and Museum Services is approximately € 700,000 per year. The budget allocated in the last years for the SBVM-bVM was about € 3,200 (data of 2020). In any case, if higher costs have to be covered by a local Library, more resources may be transferred from the general budget of the relevant School to the Library's one.

As shown in Annex 4 (Plan 4.b.1), the SBMV-bVM Main Library is located in the Block 3 - Building C, and consists of three areas: one administration area for the Head of the library; one archive/consultation area where electronic resources may be consulted online using 3 PCs located in such area for this purpose, and where hard copies of library's book supply are kept and may be consulted by about 60 students at a time; one study/reading area with 12 positions, close but separated from the archive area, where students may also read, study, and rehearse. In the archive/consultation, and the study/reading areas, each table has several sockets for connecting laptops. When lectures are not held (especially in the afternoon and/or during non-teaching periods), students are allowed to use even some lecture halls located in Building D (lecture halls E, F, G, H, and N), upon request to the support staff on duty. In Building D, there is also the computer room with 15 PCs, which is used for some lectures (Biostatistics, Informatics, Epidemiology, Food Hygiene), but where students have free access to the University electronic resources, when not used for classes. Furthermore, electronic resources may always be accessed by students from the student room, located in Block 1 - S. Sollecito (Annex 4, Plan 1.a), using 2 PCs, or with their own notebooks from the student room and the Lecture hall S located in Block 1 - New Division (Annex 4, Plan 2.a), when not in use for teaching, both equipped with wired and Wi-Fi connections. The use of all computers is free and supervised by both, support and teaching staff on duty. All lecture halls of the School are equipped with a PC and projection system. Same as all premises of the SBVM-bVM, the Library is fully covered by a Wi-Fi service that allows students and staff to access the web from their laptops.

The Library belongs to the AIB and, as such, provides several collective services as a member of the National Library System (NLS), the National Collective Magazine Archive (<http://acnp.cib.unibo.it>), and the Network Inter-Library Document Exchange (NILDE) (<https://nilde.bo.cnr.it>). UNICAM is also a member of the Inter-university Coordination of Databases and Online Publishing (ICDOP), the task of which is the acquisition and sharing of electronic bibliographic and documental resources. The entire UNICAM library resources are catalogued and entered on-line using the integrated software ALMA through the interface PrimoVE. All these resources are available in the Open-Access Catalogue (OPAC), through the UNICAM website (<http://www.unicam.it>), the LS (<http://biblioteche.unicam.it>), the SBVM-bVM (<https://veterinaria.unicam.it/it>), by clicking "Servizi" and "Biblioteca", and directly the SBVM library (<https://biblioteche.unicam.it/veterinaria/biblioteca-di-veterinaria>).

The search for learning resources, available through the Library, may be performed by logging https://biblioteche.unicam.it/index.php?option=com_content&view=article&id=24&Itemid=56 on the URL page, using a simple search string. Some additional learning resources are available in the form of additional teaching material on the website of the DCVM (<https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria>).

At present, in the AY 2019/20, it served an academic population of approximately 250 students (enrolled in the DCVM and Safety of Livestock Productions and Promotion of Typical Products of Animal Origin, as well as in postgraduate courses), plus teaching, research, and support staff, and outside users.

Subsidiary libraries

Not applicable

IT facilities and e-learning platform

At the central level of UNICAM, the Division for Infrastructures, IT Services, and e-Government (DIITSEG) is responsible for planning, coordination, and technical management of all information and communication services and systems based on computerised devices or procedures. It provides all supports needed by different areas of UNICAM, so as to allow all departments and divisions to run properly.

One staff unit is permanently detached at the SBVM-bVM to supervise the needs in terms of IT (software, hardware, connections, etc.).

Some lecture halls are connected to both, operating theatres and imaging equipment (ultrasound devices, endoscopes), by CCTV cameras, so as to allow students who are not directly involved in the practice at that moment to attend the activity.

UNICAM has a centralised e-learning platform (<https://elearning.unicam.it/>), which provides teaching support made available online by the same teachers who give the substituted face-to-face courses. Online tutors are also available, who are annually selected to make the interaction with the virtual environment easier. Courses are designed to be used for self-learning, and have high interactive content to stimulate the learning. Multimedia contents are both, synchronous and asynchronous, available online (by a username/password procedure) in Adobe Flash Player format, and are not downloadable. Service courses for staff members are offered, such as Education for UNICAM Teachers (Moodle course, UnicamForma). An e-learning course is dedicated to practitioners involved in extramural activities.

Accessibility to electronic learning resources on and off campus

All resources may be accessed from every PC located in UNICAM, and from any portable computer, thanks to the complete Wi-Fi coverage in all facilities of the University. At the beginning of the navigation, Students and Staff must enter their UNICAM credentials.

UNICAM library databases, electronic journals, full-text articles, and reference resources are available from off-campus, thanks to a proxy server. Off-campus access is limited to currently enrolled UNICAM students and staff members.

As an alternative to the proxy server, the IDEM/GARR service allows direct access to the main subscribed platforms for electronic resources off-campus. By entering personal UNICAM credentials, the following platforms may be accessed through this service: ACS American Chemical Society Journals, c@msearch (University Catalogue), Nature.com, Nilde (service for requesting documents from other libraries), Reaxys, Royal Society of Chemistry Journals, Science Direct (Elsevier Journals), Scopus, Web of Science, Wiley Online Library.

6.3 The Establishment must provide students with unimpeded access to learning resources, internet and internal study resources, and equipment for the development of procedural

skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme and have mechanisms in place to evaluate the teaching value of changes in learning resources.

Paper and electronic veterinary and multidisciplinary books, periodicals, and other learning resources

The number of veterinary paper books and periodicals are 1855 and 9 (4 of which are online too), respectively. Veterinary e-periodicals available through the UNICAM LS are 8,100, but it is quite impossible to determine the total number of all e-books and e-periodicals present in all databases, because they are cumulative resources searched by a single software (Alma using the interface Primo VE), where both charged and free resources merge. Twelve multidisciplinary databases are available. These journals cover many different areas and also specific veterinary topics (Veterinary Science and Medicine,) and related fields (Chemistry, Biochemistry, Genetics, Molecular Biology, Microbiology, Immunology, Environmental Science, General Science, Life Science, Medicine, Agricultural and Biological Science, Pharmacology, Toxicology, Pharmaceutical Science, Neuroscience, etc.).

Some of these databanks are related to non-scientific disciplines, but there is a fair amount of them which is of interest to Veterinary Medical Sciences, such as Pubmed, Scopus, Journal of Citation Report, Web of Science (WOS), CAS SciFinder Scholar, etc. Some databanks in the field of Law are also of veterinary interest, such as the "Codice delle Sostanze Alimentari" (Code of Foodstuffs), a periodically subscribed databank specific for food legislation. Such a data bank has been purchased by the food inspection area of the SBVM and may also be consulted by students, upon request. Other websites related to Law (<https://dejure.it/#/home>, <https://www.gazzettaufficiale.it/>, <https://eur-lex.europa.eu/homepage.html?locale=it>, <https://www.normattiva.it/>) may be also accessed, with or without password, for consultation of Official Journals and/or case-law.

The support teaching material includes all kinds of material given at full students' disposal by the teachers, in order to help students in self-study, self-assessment, and exam preparation. This material is not kept under the librarian's responsibility. It is available (only in Italian) for students at the SBVM-bVM website (<https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria>) and may be freely downloaded following a username/password procedure. It may be uploaded on the School's website exclusively by the Teaching Manager, to whom such material must be addressed. The support teaching material also includes a large number of videos (in VHS, DVD, or CD format), kept by teachers (each for their area of competence or interest), who use them for teaching purposes, but also allow students to make use of the same, upon agreement and under their supervision. The support teaching material also includes a collection of histopathological slides, kept by the respective teachers, and may be freely used by students for self-learning purposes using the multi-head microscope at students' disposal (when not in use for teaching activities), located in the Morphology Laboratory B (see Standard 4, Table 4.2.3, and Annex 4.1, Plan 1.c). Furthermore, the bone and skeleton collection, and models kept in the lecture hall D, located in the basement of Block 3 - Building C (Annex 4, Plan 4.b.2), and described in Standard 5, are included in the support teaching material at students' disposal (when not in use for teaching activities), for self-study/assessment activities, following the permission of the teacher.

Through the ARGO system (see Substandard 5.4), students also have the possibility of freely consulting case records of VTH patients, including diagnostic images and reports from Clinical Pathology, Diagnostic Pathology, and Microbiology units. Case records may be accessed from all computers located in the VTH, according to the privacy regulations.

As for the e-learning platform, among bachelor's degree and master's degree courses, some are of veterinary concerns: Anatomy of Domestic Animals, Informatics, General Physiology and Ethology, Online B2 English Exam for Veterinary Medicine. Remedial courses are available in Informatics, Mathematics, Chemistry, and Physics. In addition to the service courses for staff members already mentioned, such as Education for UNICAM Teachers (Moodle course, UnicamForma), other service

courses are also offered to students: Job Finder (Soft Skills, JobHunt), Student Orientation and Tutoring (Competences, Know yourself), Writing in English. Some courses are addressed to Ph.D. students in Life and Health Science.

There is no skills lab. As described in Substandards 5.1 and 5.3, simulations are performed by students using dead animals and other material of animal origin (tissues, organs, etc.).

Comments on Standard 6

The centralised organisation of libraries within UNICAM (LS) is able to optimise the use of financial resources, allowing for the avoidance of duplicates and bibliographic material to be shared among several departments at the same time.

The total number of books is still slightly low, especially the number of available copies of reference textbooks suggested by the teachers, some of which are not renewed frequently enough and are easily damaged, due to wear and tear. At the SBVM-bVM level, a recent policy of reintegration of learning resources, especially textbooks, has been conducted to have a wider and up-to-date supply.

The number of journals may be considered sufficient, especially for a small University as UNICAM. However, this number needs to be continuously increased, the periodicals being the fundamental resources, particularly for research. Concerning this aspect, it must be emphasised that UNICAM has progressively decreased the number of hard copies of journals, increasing the number of online subscriptions.

On the whole, the School seems to have a sufficient level of information technology equipment, allowing the use of all the most common modern technologies for teaching purposes, on almost all premises. However, in the light of the increase in student numbers in the last years, a new computer room for lectures (Statistics, Biomathematics, Epidemiology) will be set in the new Building A under construction. As regards the IT resources, the setting up of new fixed posts, equipped with a PC at student disposal, was not considered a priority, since students generally work with their own laptops. For this reason, many sockets have been installed in all lecture halls and spaces used by students (library, study room, etc.).

According to the suggestions made by the Visiting Team in 2011, both, opening/loaning hours and opening days of the Library, have been extended from 9 to 11 hours/day, and from Mon-Fri to 7 days/week, respectively.

Finally, it should be pointed out that, since the end of 2016 onwards, as regards all the issues described above, the SBVM-bVM had to deal with the consequences of the earthquakes, which diverted the attention from local needs to problems and priorities involving UNICAM, its students and staff on the whole (destroyed departments, offices, campuses, houses, farms, plants), but especially the social and economic fabric of the area involved. In this regard, the good news is that, at the end of October 2020, when the building of S. Sollecito in the Block 1 was completely restored, all the offices moved back to that building, thus making the 12 places of the study room located in the library available again to students at the beginning of November.

Comments on Standard 6 related to the COVID-19 pandemic

Since the beginning of March 2020, access to the Library was prohibited to students and other users, except for the staff members, in case of need. At the beginning of June 2020 (after the end of the first lockdown), the access resumed, according to specific procedures: the admission (following specific routes) was permitted only wearing a face mask and upon hand disinfection; disinfection of tables was performed after each use; the opening time was 8:00 a.m. -6:00 p.m., from Monday to Friday, arranged into four rounds of two hours each; physical access to the Library (for loan, study, and consultation) was reduced to 9 total seats upon reservation (by e-mail). Thus, during the lockdown, most of the Library activity for both, staff and students, was performed by remote access, even though the Librarian was always present in person in her office. During the second emergency, which started

at the beginning of November 2020, with the resuming of distance learning, the access to the Library and study room was however guaranteed to students according to the procedures above described. The total number of seats available to students at the same time was increased to 26 in the archive/consultation area, and the seats available in the study room, reopened at the end of October 2020, was reduced from 12 to 7.

Suggestions for improvement as regards Standard 6

The library staff should be increased, and at least one fixed-term position should become tenured. Furthermore, an increase of total resources, in terms of books and subscribed journals, should be considered, as it would improve both, teaching and research activities.

Finally, a better maintenance service should be carried out, in order to guarantee the efficiency and longer life of devices.

STANDARD 7 - STUDENT ADMISSION, PROGRESSION AND WELFARE

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

Advertising to prospective students about educational programmes, learning outcomes, admission procedures and requirements for national and foreign students, progression and certification, tuition fees, and academic calendar

UNICAM uses different approaches and systems to advertise, to the prospective students, all phases of the educational career and the student “life cycle”. They are based not only on conventional communication channels (MUR, UNICAM, and SBVM-bVM websites) and brochures providing all the useful information, but also on social media (Facebook, Instagram, You Tube), with the aim to reach as many prospective students as possible. At the same time, all the advertising actions and events aim at supporting the students to make a responsible choice, suited to individual goals and attitudes, and to prevent delay or abandon of their carrier.

At the end of each AY, UNICAM updates and publishes all the general information about the courses, including the DCVM. Organisation details, calendars, sheets, timetables, departments and premises available to the newly enroled students, and information concerning procedures and educational programme, are published at the SBVM-bVM website (<https://veterinaria.unicam.it/en>). In order to guarantee a complete support in the processes of choice and decision, the UNICAM Orientation Service, in coordination with the Head of the SBVM-bVM, organises different and very targeted initiatives, performed on different locations:

- orientation meetings in high schools, mostly located in the Marche Region, or performed during national events (fairs or exhibitions), presenting the aims of the DCVM, the admission requirements, fees, career and professional opportunities;
- guided visits to the SBVM-bVM, hosting high-school students (“Licei”, Agricultural Technical Institutes, etc.) and their teachers, during which students enroled in the last years of the DCVM participate, with the purpose of giving relevant information and exposing their point of view on academic and extra-academic activities;
- “*Journeys of Knowledge*” are important educational and dissemination seminars held by UNICAM professors, which generally take place in high schools;
- *Internship at UNICAM* consists in one or more days of theoretical-practical experience, with the involvement of students in research or other activities offered by the SBVM-bVM or the University;
- *School-Work Alternation* is an orientation activity aimed at experiencing training and working at UNICAM;
- “*Open doors in UNICAM*”, as orientation days on the educational offer and university services, was performed in AYs 2017/18, 2018/19, 2019/20;
- “*GAM Days (Freshmen Acclimatisation Days)*” are organised in September, October and November, with the aim of introducing the UNICAM general services and the Tutorship Service to the newly enroled students;
- seminars dedicated to the veterinary profession and events of scientific divulgation;
- personalized guidance counselling by means of use S.OR.PRENDO software.

As regards the foreign students, the UNICAM website provides a web page in English, where most useful guidelines are published (<https://international.unicam.it/>). As for their enrolment in the DCVM, the procedure is published on the MUR website (<https://www.studiare-in-italia.it/studentistranieri/>).

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

The number of students admitted to the UNICAM DCVM is annually fixed by the MUR, depending on the teaching potential of the School, and the prevailing prospects for professional employment (see Standard 3.1). The possible number of “EU and Non-EU students residing in Italy” is communicated by UNICAM to the MUR. Furthermore, some places for “Non-EU students residing abroad” are annually planned and requested from the MUR, on the basis of international agreements with Non-EU Countries (China, India, and Albania). Since the AY 2018/19, if these places are not covered, they can be destined to Italian students. On this basis, the MUR initially decides on the total number of students who can be enrolled at national level, then on the number to be allocated to each VEE. These decisions are taken upon consultation with a working group that includes, apart from the MUR, the representatives of the Italian VEEs, the Professional Veterinary Associations, the Regions, and the Ministry of Health. After that, the MUR definitively assigns the number of students to the different VEEs, by means of a Decree.

The total number of new veterinary students assigned by the MUR to the UNICAM DCVM in the AYs 2017/18, 2018/19, and 2019/20, was 27, 54 and 45, respectively; 0, 14 and 5 of which intended for Non-EU students residing abroad. The total amount of new veterinary students admitted to UNICAM in the last AYs is given in Table 7.2.1. In Table 7.2.2, the total number of undergraduate veterinary students refers to those enrolled in the years previous to the 6th year. Students enrolled from the 6th year onwards are commonly called *irregular* students. Therefore, for the purpose of calculating the ESEVT indicators, only the students who really affect the teaching activities have been considered, that is only those enrolled up until the 6th year (the first *supplementary* year). In fact, students enrolled from the 7th year (the second *supplementary* year) onwards have not been considered, because they attend the premises only to sit the exams. Moreover, in Table 7.2.3, only the number of students really involved in the teaching activities has been considered to calculate the ESEVT indicators.

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

Type of students	2019/20	2018/19	2017/18	Mean
Regular students	45	54	28	42.33
Full-fee students	-	-	-	-
Total	45	54	28	42.33

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

Year of programme	2019/20	2018/19	2017/18	Mean
First year	45	61	32	46
Second year	47	30	35	37.33
Third year	32	40	31	34.33
Fourth year	55	42	52	49.67
Fifth year	21	35	25	27
Sixth year ⁽¹⁾	14	23	27	21.33
2 or more years ⁽¹⁾	19	26	23	22.67
Total (until the 6th year)	214	231	202	215.67

⁽¹⁾ Commonly called “irregular students”.

Table 7.2.3. Number of veterinary students graduating annually. In brackets, the number of students enrolled until the 6th year (the first *supplementary* year, see above), who really affect teaching activities.

Type of students	2019/20	2018/19	2017/18	Mean
Regular students	17 (8) ⁽¹⁾	55 (36)	25 (17)	32.33 (20.33)
Full-fee students	-	-	-	-
Total ⁽²⁾	8	36	17	20.33

⁽¹⁾ Incomplete data (the last graduation session of the AY 2019/20 should have been in March 2021, postponed to June 2021 by the MUR due to the pandemic emergency, as reported in the Comments on Standard 3 related to the COVID-19 pandemic).

⁽²⁾ Total is referred only to the students enrolled up to the 6th year.

Table 7.2.4. Average duration of veterinary studies of students graduated in the AY 2018/19 ⁽¹⁾.

Duration	% of students	Total number
5 + 0	30.9	17
5 + 1 year	34.5	19
5 + 2 years	12.7	7
5 + 3 years or more	21.8	12

⁽¹⁾ The last AY is not representative, because only 8 students graduated until March 2021.

Table 7.2.5. Number of postgraduate students registered at the Establishment; the means have been calculated only from the year of activation onwards.

Programmes	2019/20	2018/19	2017/18	Mean
Interns	11	- ⁽¹⁾	- ⁽¹⁾	11
Residents	-	-	-	-
Ph.D. students	4	4	7	5
Others (specify):				
Course on RPME	23	- ⁽¹⁾	- ⁽¹⁾	23
2 nd level Master in MCAAR	14	-	13	13.5
2 nd level Master in Cardiology	-	46	- ⁽¹⁾	23
School of National Specialisation in AHBZP	73	74	75	74
School of National Specialisation in HCFAP	22	20	- ⁽¹⁾	21

⁽¹⁾ Not activated yet.

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

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

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

Admission procedures for regular students:

a) Selection criteria

The admission procedures are available at the SBVM-bVM portal (<https://veterinaria.unicam.it/it/didattica/corsi-di-studio/medicina-veterinaria/ammissione-medicina-veterinaria>). Access is regulated by a *numerus clausus* system and defined as “programmed admission” at national level, and Student admission criteria for the enrolment in the DCVM are established by the MUR.

Admission tests are regulated and organised by the MUR at national level, taking place on the same day and at the same time, with the same questions, in all Italian Universities. The test consists of 60 multiple choice questions to be answered in 100 minutes. Students receiving a minimum score of 20 points are included in a single national ranking list and assigned to a VEE on a first-come first-served basis, depending on the score obtained, the number of available places at the chosen VEE, and the student geographical preferences expressed (they must indicate three VEEs in order of preference).

b) Policy for students with disabilities and disorders

UNICAM has established the “*Disable and SLD Student Support Service*” for helping students with disabilities and/or SLD (Specific Learning Disorders). Students with a disability level higher than 66% have access to all UNICAM services tax-free, including full exemption from tuition fees. In July 2019, UNICAM approved the specific Regulations by Director General (Protocol No. 50344 of 30 July 2019, available at

https://disabili.unicam.it/sites/disabili.unicam.it/files/Norme%20pubblicate%202019%20OK_1.pdf

The “*Disable and SLD Student Support Service*” collaborates with the various UNICAM Divisions and Offices, in order to facilitate the use of all the University services for students with disabilities and/or SLD. The SBVM-bVM has a specific Proxy in charge of coordinating Tutors, so as to guarantee the right to education programme and equal access, integration and participation in the university life, for all students with disabilities and/or SLD.

For the enrolment, there is a dedicated web page for students with disabilities and/or SLD, explaining all the procedures activated to support them (<https://disabili.unicam.it/english-version>).

c) Composition and training of the selection committee

The Admission Committee is chaired by the Head of the DCVM, and composed of professors and technical staff of the SBVM-bVM, without applying specific selection, having only supervision and managing functions. After the publication by the MUR of the national guidelines about how to run the admission test, the Committee is approved by the Council of the SBVM, and finally appointed by Rector’s Decree. As the date of the admission test approaches, the Head of the DCVM, together with the Head of the SBVM-bVM Teaching Office, calls a training meeting reserved to all the members of the Admission Committee, in order to read and comment the guidelines of the MUR, so as to guarantee the best carrying out of the admission test.

d) Appeal process

An appeal may be submitted to the MUR and to the Regional Administrative Court, against MUR selection criteria and/or procedures. The Admission Committee is obliged to communicate to the MUR any problems arisen, or procedures not correctly carried out.

e) Advertising the criteria, and transparency of the procedures

The criteria and transparency of the procedures for the admission to the DCVM are guaranteed by a national *online* system, managed by the MUR. For the registration for the admission test, it is necessary to follow the guidelines published on different websites (<https://accessoprogrammato.miur.it/2020/>, <https://www.universitaly.it/index.php/>, <http://www.unicam.it/miiscrivo>, <http://www.unicam.it/miiscrivo/immatricolazione-corsi-ad-accesso-programmato>).

In order to disclose the final ranking of the admission test, the CINECA (a Computing Consortium under control of the MUR) publishes the score obtained by the candidates, according to the label code on the website www.universitaly.it, in compliance with the rules for the protection of personal data, guaranteeing the anonymity of the candidates. Starting from the day following the date of publication of the test results, and within 5 working days, each University, exclusively through a reserved website created by the CINECA, sends to the CINECA the identification data of each student processed. After that, on the reserved page of the UniversItaly portal, the candidates can view their own sheets, their score and their personal data form. The national ranking list, by name, is published in the area reserved for students. The candidates assigned to the specific universities have the right to proceed with the registration, or to refuse.

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

No different admission procedures among students are established.

How the Establishment adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

The number is annually assigned by the MUR on the basis of available resources, in terms of teaching staff and teaching facilities. Student biosecurity and welfare requirements take into account the guidelines and procedures adopted for the laboratories and classrooms (see Standard 4.3), according to EU, national and University rules.

Prospective number of new students admitted by the Establishment for the next 3 academic years

The number of new students is not expected to change for the next three AYs. In recent years, the MUR has begun to make the allocation of places more stable, taking into account the indications of the Conference of Directors, which invoked a more constant assignment over time, in order to optimise the academic system.

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

Description of the policies and procedures dedicated to applicants with disabilities

Pursuant to Law No. 170/2010 (“*New rules on specific learning disorders in schools*”), UNICAM has paid particular attention to students with SLD, with the aim to guarantee them targeted services and the best inclusion. Individual tutorship, accompanying service, specific software, and teaching material, are available in order to give the students with disabilities and/or SLD the instruments needed to reach the objectives of the DCVM.

The SBVM-bVM has a Proxy In charge of this service, who is supported by a Tutor in charge of performing specific tasks:

- supporting the students with disabilities and/or SLD with regard to the forms of learning (conceptual maps, etc.) provided in the various training activities, and evaluating them together

with the relevant teachers of the different courses, in order to guarantee a more focused evaluation of the applicants during the examinations;

- operating in suitable forms and times, so as to guarantee the students specific teaching aids, in order to favour their full participation in teaching activities;
- stimulating and increasing the awareness of the issue of disability and SLD, by means of specific initiatives addressed to students, as well as to teaching and technical-administrative staff of UNICAM.

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

The Establishment must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.

Description of:

a) Progression criteria and procedures for all students

The requirements for progression in the curriculum are regulated. To move up in the study carrier, students must demonstrate regular and successful participation in courses, with periodic assessments. The progression criteria are based on the acquisition of ECTS credits. One ECTS credit is defined as 25 hours of both, study time and time spent in the classroom or laboratory. Three hundred credits must be acquired to obtain the degree. Furthermore, additional credits to be “spent” after graduation are reported in the so-called “*Diploma supplement*”, which represents a “portfolio” that all students may use to continue their study career after graduation, or to certify specific skills upon entering the labour market. To be enrolled in the years following the first, the students must have acquired 40 ECTS to be enrolled in the 2nd year, 70 to be enrolled in the 3rd year, 100 to be enrolled in the 4th year, and 170 to be enrolled in the 5th year. Students not complying with these requirements have to re-enrol in the same AY as “*repeating students*”. The progression and procedures are described in the DCVM Regulations, available online (https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/documenti/LM_42_MedVet_REGOLAMENTO_DIDATTICO_ENG_1.pdf), but are also communicated to the students by the Student Administration Office. There are examination sessions every month, except in August, during Christmas holidays and Easter holidays. All the dates of exams are available online in a web system (ESSE3), and students have to book them before sitting the exam in the chosen date. Successfully passed examinations have to be recorded by the teacher in the electronic register in the ESSE3 system, within five days from the official date of the exam.

b) Remediation and support for students who do not perform adequately

Student progress is generally good. Performance is verified through interactive teaching and examinations. There are different tools to support and reinforce students who face difficulties in the progress of their career. Some of these tools are activated at the beginning of the 1st year, and others are available in the course of different AYs. After the national admission test, during the 1st year of the DCVM, students who have achieved a grade lower than one third of the maximum achievable score in the relevant sections of the national admission test, are informed by the Teaching Office that they must attend a compulsory remedial course, called Additional Training Obligation (OFA) in the related field (Chemistry and/or Biology). The course must be completed during the 1st year, and the OFA is passed by means of an assessment of the basic knowledge of Chemistry and Biology, at the end of the remedial course. The enrolment in the exams relating to the teaching courses of the years following the first is subject to the successful completion of the OFA assigned. The OFA is

considered successful even if the student, despite not having taken the final test relating to the compulsory remedial course, passes the following exams of the first year: Chemistry and Biochemical Propaedeutics, regarding the OFA in Chemistry; and Zoology and Botany, regarding the OFA in Biology. To provide them with additional support in the process, students who have been assigned OFA (one or both), are obliged to attend the relevant remedial courses, offered by the DCVM at the beginning of the first semester of the 1st year. Due to the delays in enrolling in the DCVM, occurred in these last years, the remedial courses are repeated at the end of the first semester for those students who enrolled late. A tutorship service to prepare the Chemistry exam is also activated for all the students. In order to reduce the time required for graduation, and on the basis of the requests made by the student representatives, and by the professors of each AY, the Board of Coordinators of the CYCCs carries out a revision of the training programme of the DCVM, taking into consideration also the opinion of the JTSC, proposing amendments to the Teaching Regulations of the DCVM, if necessary, to be approved by the School Council (see Substandard 1.6). The new Teaching Regulation of the DCVM (https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/documenti/LM_42_MedVet_REGOLAMENTO_DIDATTICO_ENG_1.pdf) of 2017 (approved by the SBMV Council No. 36 of 8 February 2017), in force since the AY 2017/18, have introduced the following:

- reduction in the teaching load for the 3rd year of the course, considered too heavy by the students, by annualising the 9 ECTS credits of “Parasitology and Parasitic Diseases”, and transferring the 6 credits of “Andrology and Pathology of Reproduction” to the first semester of the 4th year; considering the relocation of one credit from the *Tirocinio* in “Food Inspection” to “Food Hygiene and Technology”, the teaching load of the 3rd year was lightened by 5 ECTS credits;
- elimination of the propaedeutic course in “Infectious Diseases of Animals” for “Veterinary Pathological Anatomy and Cadaveric Diagnostics”, both teaching activities carried out in the same semester of the 3rd year.

In 2018, in order to facilitate the transition of students belonging to the cohorts from 2013/2014 to 2016/2017, from the old to the new system, teaching activities of a seminar type were provided, accredited by the SBMV Council.

In the period covered by this cyclical review, in addition to the changes mentioned above, the following improvements were made:

- adoption of provisions aimed at limiting the problems related to the delay in the enrolment in the DCVM, as a result of the introduction, by the MUR, of the national scrolling ranking lists, such as: automatic certification of attendance of the teaching activities of the first semester for students enrolled after the 1st of December; automatic certification of attendance of the teaching activities of the second semester for students enrolled with great delay, who have regularly attended classes starting from 15 April; automatic certification of attendance of all teaching activities of the 1st year to students enrolled in the 2nd year, in case of partial recognition of the previous career; reduction of the number of ECTS credits necessary for the enrolment in years following the 1st, specifically from 40 to 25 ECTS, and from 180 to 170 ECTS, for enrolment in the 2nd and 5th year, respectively;
- improvement of the awareness-raising action for student representatives for a more active participation in the initiatives of the bodies of the SBVM and DCVM involved in the QA procedures. In fact, for this purpose, students have been involved in the DCVM Review Reporting Committee, and for the last two years, the number of students in the internal EAEVE Committee has increased.

Since the beginning of the 1st year, a Tutorship service is available in order to work on three crucial aspects of the university experience, such as reception, graduation course, and professional orientation. Initiatives in place for the aforementioned aspects include the following:

- assignment to each student, by the Rector’s Proxy for Tutoring in the SBVM-bVM, of an individual teacher Tutor, who becomes a reference figure for the student’s entire university career;

- group tutoring meetings, scheduled or requested by students, and organised by the tutoring service of the SBVM-bVM;
- days dedicated to welcome the freshmen (GAM), organised by UNICAM;
- study tutoring courses for basic training activities, organised by UNICAM;
- seminars and workshops held by experts on general topics, organised by UNICAM and the SBVM-bVM;
- meetings on orientation and introduction to the labour market, organised by UNICAM and the SBVM-bVM.

c) Advertising to students, and transparency of these criteria/procedures

Criteria and procedures are specified in the curriculum and additional guidelines, including the course descriptions, published on the SBVM-bVM website (<https://veterinaria.unicam.it/en>). Through the ESSE3 system, students may view their study progression and current status, at any time, and print transcripts. The advertisement is communicated by means of the DCVM Committees, the CYCCs, the tutorship meetings, the tutorial system and learning assistance providing support to individual student on request, and also through the website. First-year students undergo comprehensive induction programmes and receive guidance from tutors. Thus, students have the possibility to use many different tools and places for advice.

Description of the rates, and main causes of attrition

There have been no frictions in the DCVM of the SBVM-bVM over the years. On the contrary, it should be pointed out that all Italian universities are monitored annually for their study success rates through the CENSIS system. In the AY 2019/20, as in the last seventeen consecutive year, UNICAM was the first university in Italy, among small universities (with less than 10,000 students enrolled per year), as regards services and teaching quality. Student study load and support have been found to strongly favour the approach and attitude to study and success rates. Consequently, the study load is constantly monitored by the UNICAM quality service (USIQUAL), and the student support services are constantly improved. This has allowed UNICAM to reach the 3rd position in the ranking of Italian universities in the *StuDocu World University Ranking* (www.studocu.com/blog/en/studocu-world-university-ranking-2020), which compares all the universities around the world, among which UNICAM takes the 47th place overall (27th in Europe), as regards the positive evaluation of students on teaching activities and services.

How and by whom the admission procedures, the admission criteria, the number of admitted students, and the services to students are decided on, communicated to staff members, students, and stakeholders, and implemented, assessed and revised

The student admission procedures and criteria are established primarily by the MUR, and shared with all the Universities offering a DCVM. A Decree is then issued by the Rector, after consultation with the Senate, and upon approval of the School Council. The Decree is published on the University website, and available to internal and external stakeholders. Specific actions to implement the steps of the entire procedure are taken by the Admission Committee, and communicated to candidates and University bodies (e.g. *e-mail*, reports to the School Council and the University Senate, etc.).

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

Description of the mechanisms for the exclusion of students.

No mechanism of exclusion from the DCMV is envisaged.

Description of the appeal processes

In case of disciplinary causes, the general procedure of UNICAM is applied, as reported in the Code of Ethics and Conduct (Title III, Art. 51 “Sanctions against students”) (<https://www.unicam.it/regolamenti/codice-etico-e-di-comportamento>), in reference to the University Statute (Art. 29, Paragraph 14) (https://www.unicam.it/sites/default/files/regolamenti/Statuto%20aggiornato%202015_EN.pdf).

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

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

Services available to students

There are different services available to the DCVM students, and aimed at supporting them, from the individual, psychological, and emotional point of view. In particular:

- *Student Administration Office*: Head of the Student Administration Office is available for students on different days, also during hours outside the teaching activities;
- *Tutorship Service*: each Tutor must cover 80 hours/AY, and also has to be available via social networks (Facebook, WhatsApp, Telegram);
- *Tutors Desk for students with disabilities and/or SLD*: the Desk receives students by appointment, but is also available online (https://disabili.unicam.it/english-version_servizio.disabilidsa@unicam.it);
- *ERDIS Service*: the ERDIS (Regional Agency for the Right to Higher Education) Marche - the Camerino Unit ensures the implementation of the right to higher education to all the students enrolled in UNICAM, and the access to higher education. In particular, as stated by the Italian Constitution, the achievement of the highest study grades for capable and deserving students, even if they lack financial resources. This service ensures individual grants (scholarships, accommodation) on the basis of family income and merit. In addition, the authority provides services (canteen, etc.) to all UNICAM students (http://www.unicam.it/sites/default/files/documenti-pag/2020/guidagenerale/guida_studente_29luglio_erdis.pdf);
- *CUS Sport*: recreation facilities to play sports (swimming pool, gym, basketball, volleyball, judo, aerobic gymnastics, weight room) are located in Camerino, Le Calvie (<https://www.unicam.it/studente/impianti-sportivi>);
- *Psychological support*: the Psychological Counselling Service is intended for all students regularly enrolled in UNICAM. It represents a resource working on personal and individual psychological skills, stimulating the students interested to receive this support. The Service consists of individual interviews with a Clinical Psychologist, who may vary, depending on the difficulties and objectives of the consultation. The interviews are free of charge. To have an interview, it is necessary to book them at the Administration Office of the Service (consulenza.psicologica@unicam.it);
- *International Office*: the SBVM-bVM has a Proxy who coordinates various forms of mobility, including temporary periods abroad, cross-border enrolment for short study periods (e.g. a semester), cross-border enrolment for a complete study programme. The educational programme of the DCVM at UNICAM is advertised abroad by means of the International Mobility and Erasmus Office, in accordance with the Proxy of the SBVM-bVM, who promotes agreements

with other institutions for international mobility programmes in Europe (ERASMUS), and manages a web page (<https://international.unicam.it/>), where it is stated that the pre-enrolments must be done exclusively online at <https://www.universitaly.it/index.php/>. The list of agreements subscribed with VEEs in Europe and other non-EU countries is given in Annex 7.1;

- *Language Office*: UNICAM organises courses and/or tests in English and other foreign languages for students. English, French, and German language courses are held by mother-tongue teachers. Students interested in achieving International Language Certificates have the opportunity to get Cambridge ESOL Certifications for English, and D.E.L.F./D.A.L.F. for French. UNICAM also has a Cambridge Centre, where it is possible to take English Language exams at different levels;
- *E-learning platform* (see also Substandard 6.2): UNICAM offers an e-learning platform, where free and paid courses are offered (<https://elearning.unicam.it/>). By the end of the 1st year, students of the DCVM use this platform to attend the mandatory course on workplace safety;
- *Student Council*: it gives the students the opportunity to participate in the academic actions (<https://www.unicam.it/sites/default/files/regolamenti/regstu.pdf>);
- *European Student Association*: the DCVM students adhere to the IVSA (International Veterinary Students' Association), which promotes cultural exchanges among the VM students of European and non-EU Universities. In Spring 2018 and 2019, the students of the DCVM hosted VM students from Paris, London and Ohio State University College of Veterinary Medicine for 7-10 days (<https://www.facebook.com/ivsacamerino/>);
- *Cultural Associations*: every year, the student associations are supported, thanks to calls for funding that promote cultural activities. It is possible to adhere to different associations with recreative, cultural, and social aims, or to promote new associations following the guidelines approved by UNICAM (<https://www.unicam.it/studente/associazioni-studentesche>). An example is represented by the Planet Courses, which are courses focused on artistic disciplines (art, photography, diction, cinema) (<http://www.unicam.it/studente/vivere-unicam/corsi-planet>). The Associations promote accessible tourism, with particular attention to SLD and disabled students (Go4All);
- *Cafeteria*: as required by the EAEVE Committee in March 2011, a coffee shop has been opened, located in Building 3 Block 3, from Sept. 2012 to Sept. 2020. Unfortunately, the cafeteria was closed due to the consequences of the lockdown during the period March-June 2020; a new call to assign the management of the cafeteria is in progress;
- *Insurance assistance*: UNICAM has activated an insurance policy for students, research fellows, postgraduates and graduates, officially attending the activities, including those carried out in external facilities under agreement with UNICAM. Hospital expenses are reimbursed following hospitalisation due to injury or illness;
- *Ombudsman*: Student Ombudsman is competent for violations of duties by students, according to Paragraph 51 of the UNICAM Code of Ethics and Conduct (<https://www.unicam.it/ateneo/organizzazione/altri-organismi-difensore-civico-degli-studenti>);
- *Individual Tutorship*: every year, UNICAM assigns to newly enrolled students an individual teacher Tutor, who has the task of assisting the student to overcome study problems (see Substandard 7.5);
- *Public transport*: UNICAM and the local bus company (CON.TR.A.M.) offer a free mobility service between Camerino and Matelica and other university locations. Discounted rates are applied on the route to Rome;
- *“Alias” examination booklet*: based on the principle of gender self-determination, after the approval of Student Carrier Regulations in 2019, UNICAM recognises the use of a name different from the personal one to all those students who request it, in order to protect their psychophysical well-being. A new “alias” account is assigned, and it may be used for communications with teachers and administrative offices, and for online registration for exams.

For accessing different resources and electronic services (e.g. exam booking), students use the credentials received at the time of enrolment, typing their username (in the form name.surname@studenti.unicam.it) and their personal password.

Description of the mechanisms for resolution of student grievances

For violations of duties by the students, and consequent measures, reference is made to the regulations reported in the UNICAM Code of Ethics and Conduct, and the University Statute (see Substandard 7.6).

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

Description of the mechanisms allowing students to communicate their needs, complaints, and comments

Four Tutors are available, in turns, at the front office (Monday and Wednesday, 1:30 p.m. – 2:30 p.m.), where they listen to all the comments and suggestions made by the students of the DCVM. The Tutors receive the students in a dedicated classroom, but the arrangement of a specific office is in progress. Furthermore, students and representatives may contact the teachers, the Rector's Proxy for Tutoring, the Head of the DCVM, the School Director, the Vice-Rectors, and the Rector, at any time, to raise issues concerning education or work. This open-door policy is possible due to the small dimensions of UNICAM, and is considered an integral part of daily quality control efforts at the University. As students are also represented in all relevant committees, they may directly provide input on all relevant issues.

Comments on Standard 7

The seismic events that occurred in October 2016 and January 2017 compromised the access and the usability of different UNICAM buildings, and severely affected the academic performances of students. In addition, in the SBVM-bVM, the number of classrooms and study rooms for students was significantly reduced, because some offices had to be moved to other available spaces. Anyway, the teaching staff has continued to work, trying to recover classrooms and labs, also renouncing to their own, condemned offices. Many students lost their rented apartments/rooms, and were forced to go back home. However, some teaching activities (exams, night/holidays shifts, etc.) were never discontinued. Lectures restarted after about 20 days.

Despite the dramatic situation after the earthquakes, if we consider the ANVUR (national accreditation body of the MUR) indicators on national average data, the attractiveness of the DCVM is still evident. With regard to the percentage of graduates employed three years after the degree, it is possible to see that apart from a higher average length of study, graduates in VM at UNICAM are employed, or carry out paid training activities, three years after graduation, with a percentage higher than the national average and that of the universities located in the same geographical area.

Comments on Standard 7 related to the Covid-19 pandemic

Since the beginning of March 2020, UNICAM decided to carry out all teaching activities via web, using the Webex platform (Cisco Systems). The students were able to connect to the virtual room of the teacher, after having downloaded the app Cisco WebEx Meeting, and consulted the list of the virtual rooms (<https://www.unicam.it/didatticaduepuntozero/>). In this way, the 2nd semester of the AY 2019/20 has been rearranged, starting on 16 March 2020, with a new official schedule. Alternative

activities (case-studies, problem-solving, research in small groups) replaced the large part of practical activities of the courses. Practical activities during the Tirocinio programme, performed on private farms or food producing plants under agreement with UNICAM, have been suspended. In relation to orientation activities, in May 2020 videoconferences were performed, organising “Open Doors ON LINE” events, using Cisco WebEx platform, in the virtual room of the Rector (for the first, introductory part), and then in that of the Proxy of the SBVM-bVM.

The final exams and the discussions of graduation thesis have been performed via web, respecting the dates fixed in advance. In addition, as already reported (see Comments on Standard 3 related to the COVID-19 pandemic), another date for the thesis dissertation has been scheduled on 10 June 2020 by the MUR. This also contributed to the high number of graduates in the AY 2019/20, compared to other AYs, as reported in Table 7.2.3. Furthermore, in order to improve the students’ career, the number of ECTS credits to be acquired for the enrolment in the 5th year has been reduced from 170 to 162 credits.

The admission test for the AY 2020/21 was performed on 1 September for all the candidates coming from the Marche Region, based on the guidelines of the MUR. In order to guarantee the respect of the anti-COVID-19 procedures, the admission test has been carried out at the sports hall of UNICAM, located in Le Calvie.

For the AY 2020/21, the face-to-face teaching activities started with consequent rearrangement of the spaces. In order to book their site in the classroom, the app YoUnicam (for both Android and iOS) has been created for all the students.

After the significant reduction of the student presence due to the lockdown, the manager of the cafeteria did not reopen and closed her activity. Now, this area is available again, and UNICAM is looking for another manager.

Suggestions for improvement as regards Standard 7

The main goal of Standard 7 is the reduction in the number of the “repeating” students. A more efficient monitoring of the students having difficulty to pass the exams and to enrol in the following year should be taken into consideration.

It is planned to organise, at least once a year, preferably in the second semester of the 5th year, allowing also the 4th year students to participate, a meeting with some representatives of the Italian Federation of Professional Veterinary Associations (FNOVI) and the National Association of Italian Veterinarians (ANMVI), in order to make students aware of the bureaucratic and administrative obligations and the procedures for the start-up and management of a veterinary clinic or other professional activities.

It is also desirable that the new Job Placement portal (Vet-career 2.0) becomes operational soon: it is a portal to which dozens of veterinary clinics, throughout the country, adhere, and where it is possible to access the names of recent graduates, in order to facilitate their connection with the profession, and the entry into the labour market.

Student awareness-raising activities for the study and care of other types of animals, such as bees, fish species and wild animals, aim to arouse greater interest in the involvement with these species, which represent important regional resources.

STANDARD 8 - STUDENT ASSESSMENT

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

General student assessment strategy of the Establishment

UNICAM University Policies for the verification of learning, approved by the US, aim at meeting the requirements of the following:

- a. Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG 2015, Standard 1.3: “*Institutions should 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*”).
- b. Guidelines of the AVA-ANVUR (national accreditation agency of the MUR) process (ed. 2017), which, defining the R3.B indicator, states: “*The degree course transparently declares the learning verification criteria, the methods of attribution of the results of the final and intermediate tests, and the methods of communication to students*” (<https://www.anvur.it/en/activities/ava>).
- c. Guidelines for the professional development of teachers, and teaching evaluation strategies for universities (QUARC, ed. 2017), with particular reference to point 1.4 “*Monitoring and evaluation of learning*” (https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/MQ%20ISO%209001_2015%20ENGLISH.pdf).
- d. UNICAM Teaching Regulations (articles 16, 17 and 24) (<https://www.unicam.it/regolamenti/regolamento-didattico-di-ateneo-english>)

The purpose of UNICAM policies for the verification of learning is also to identify the responsibilities for the management and monitoring of activities, also in relation to the provisions of the *University quality management*, reported in the Quality Manual (https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/MQ%20ISO%209001_2015%20ENGLISH.pdf). The “verification of learning” activities covered in the document also includes the final graduation exam.

The assessment methods are managed by each School, and are decided by the Teachers responsible for teaching activities, who describe them in predefined on-line forms, making them available to the public well in advance.

In order to guarantee that the verification tests (oral or written exams, and practical skills evaluation) are structured in such a way as to ascertain the actual achievement of the expected learning outcomes, the following conditions must be satisfied:

- the educational objectives of the degree course are clearly formulated and listed, according to the scheme of the *European reference descriptors*, given in the SUA-CdS form (see Substandard 3.2);
- the expected learning outcomes of each training activity are clearly formulated and listed, according to the scheme of the *European reference descriptors* (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=08B76C089916AE55D029B0F0110E2580.esse3-unicam-prod-02?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMICO=2017), in such a way as to be able to make explicit their contribution to the achievement of the educational objectives of the course of study. The curriculum map is available at <https://sgq.unicam.it/intranet> by authentication, using the relevant username (*sgquser*) and password (*sgqunicam*), and then typing (or using copy and paste) https://sgq.unicam.it/system/files/intranet/2021/Curr_Map/CM_MV_revisione_novembre_2020.pdf.

- the methods of delivery of teaching activities are consistent with the expected learning outcomes (https://didattica.unicam.it/Guide/PaginaPercorso.do?jsessionid=704483CC7E88D948D6043789A35F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMICO=2017);
- the methods for learning assessment are coherent and appropriately calibrated, with respect to the expected learning outcomes (*validity* and *reliability*, https://didattica.unicam.it/Guide/PaginaPercorso.do?jsessionid=704483CC7E88D948D6043789A35F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMICO=2017), and adequately communicated, in advance, to students (*transparency*);
- the feedback for each assessment is directly provided to the students, in order to support the process of learning, necessary for the full achievement of the expected learning outcomes. The teacher in charge of the training activity identifies, designs and plans the methods for learning assessment, by checking its alignment with the expected learning outcomes and teaching methods. The scheme through which the teacher responsible for a teaching activity designs and plans such an alignment is exhibited in Annex 8.1.

In this context, the DCVM focuses on assessment through competency-based exams, to determine if students have acquired the necessary knowledge and skills. Exams focus on specific learning outcomes, to which single questions and formats are assigned, following the principle of constructive alignment. At the beginning of each teaching course, the relevant teacher explains to the students, in a clear and exhaustive way, how the exams will take place, and how the level of achievement of the course objectives will be assessed. In fact, there is a specific question (AF5) of the evaluation questionnaire that is administered to the students at the end of the course, about whether the exam modalities have been clearly stated and described (https://www.unicam.it/sites/default/files/documenti-pag/2020/questionario%20didattica%202020_21_ITA_EN.pdf). General information is contained in the University Statute (US), and more detailed information is given in the Teaching Regulations of the DCVM (https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/documenti/LM_42_MedVet_REGOLAMENTO_DIDATTICO_ENG_1.pdf). The general student assessment strategy is defined in the UNICAM Teaching Regulations (https://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO%20DIDATTICO%20di%20ATENEO_EN2.pdf), and reviewed by the DCVM Council and the DCVMRRC, supported by the UEU (see Standard 1.6). The UEU ensures that the evaluation in study programmes is compliant with the requirements established in the Curriculum Map. The aforementioned academic bodies interact with the Quality Supervision Board of the University (QSB-U), which currently relies on the Division for Programming, Evaluation and Quality Systems (DPEQS) (see Substandards 1.4 and 9.4).

The student assessment strategy is performed so as to monitor the entire activity, and improve the evaluation procedures for the specific competences expected during and at the end of each training activity.

The scheme followed by each teacher of the DCVM in the process of defining the evaluation procedure of his/her teaching course, aimed at the student assessment process, is exhibited in Annex 8.2.

In order to support students in their academic career, and give them many possibilities to arrange their study plan, at least 8 examination sessions must be held every year for each teaching course. The DCVM is completed through the acquisition of at least 300 ECTS credits, including those acquired after sitting the final exam, consisting in the dissertation of a written thesis prepared under the supervision of a tutor teacher.

Prior to the beginning of the AY, the Study Programme Administration Officer of the DCVM draws up the calendar of lectures/activities, and the calendar of the exam sessions, and publishes them (only in Italian) on the SBVM-bVM website (<https://veterinaria.unicam.it/en/teaching>). Students can sit the exams of the teaching courses for the year they are enrolled in, at the end of the semester in which the course is held. From June on, the students enrolled in a given year may sit any exams of the courses held in the previous years. As a general rule, students may sit the same exam as many times as they want, provided that fifteen days have passed between the failed exam and its repetition.

Attendance of the academic lectures/activities is mandatory. Only those students who have attended at least 75% of a teaching course, and acquires the relevant certification of attendance, may access the corresponding exam. Exams are performed in written, oral and practical form, depending on the teaching course. The oral examination is generally performed according to the “*problem solving*” principles. The maximum number of exams necessary for obtaining the degree cannot be higher than 30. Before sitting some exams, students are required to pass the relevant mandatory preliminary exams, if so established. The list of all mandatory preliminary exams is published on the course website (<https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/LM-42%20Med.Vet-Propedeuticit%20da%202012-13.pdf>), included in the Teaching Regulations of the DCVM (https://veterinaria.unicam.it/sites/veterinaria.unicam.it/files/documenti/LM_42_MedVet_REGOL_AMENTO_DIDATTICO_ENG_1.pdf), and is exhibited in Annex 8.3.

The 8 ECTS credits, spent by each student for preparing and discussing the final thesis, also contribute to encourage the students to perform individual study and self-scheduling. The thesis may also be prepared abroad, subject to an agreement with a foreign University or Institute. In fact, starting from the AY 2019/20, UNICAM has established that every activity carried out by students during *Erasmus*, including *Erasmus Placement* activities that do not provide for the mandatory acquisition of ECTS credits, must necessarily provide for the acquisition of at least 5 credits, all aimed at drafting the final thesis. The final grade is the results of the student’s career and the thesis discussion grade, the maximum being 110 “*cum laude*”.

Description of specific methodologies for assessing the acquisition of:

a) Theoretical knowledge

The assessment of theoretical knowledge is mainly based on oral exams; for some subjects, the assessment is based on written exams, followed by oral and/or practical exam. Oral exams usually include three or more questions, addressed to the student, which are tailored to evaluate:

1. student’s ability to read up the reference textbook(s), and/or critically read scientific articles on specific topics (also by means of online research and verified sources), and/or deepen the issues of particular or current professional interest;
2. how well the student is able to elaborate, in his/her own words, the concepts that he/she has learned from the study, and apply them to specific problems;
3. student’s “*problem solving*” attitude, evaluated by applying the theoretical notions learned to the resolution of a given situation or clinical case, which can be applied to a real-life professional situation;
4. student’s ability to communicate effectively, clearly, and appropriately, both, basic and more specialistic concepts, using also a professional and technical language, where necessary.

Written exams are carried out in the form of open and/or closed-answer questions, multiple choice questions, problem-solving questions, supervised work assessment, etc. The specific methodology depends on each subject, and is freely decided and described by the teachers in the *Student’s Guide* (<http://www.unicam.it/studente/guida-dello-studente>). Other technical systems, like audience response systems (*clicker tests*) (Kahoot® app), or self-assessments (also using the anonymous Cisco Webex-polls), may also be deployed.

As mentioned in the introduction to this Standard, at the beginning of his/her course each teacher is obliged to explain the assessment methodology used for the exam to the student.

As for checking of the effectiveness of the different methodologies for students' assessment, the QSB-U promotes a careful monitoring of exam results, and the regularity of students' career. In particular, the monitoring is aimed at the constant control of the parameters connected to: a) regularity of careers; b) percentages of students passing from the first to the second year, and to following years; c) average duration of students' career; d) average marks of the exams. The QSB-U has recently launched a special link (<https://cruscotto.unicam.it/>) which can be accessed only by some positions (e.g. Coordinators of DCs, School Directors, etc.) through username and password, where the data concerning students' career of each DC are processed, compared to national data for the same DC and for the same cohorts of students. In order to monitor students' career, dropout rates and average marks, at the end of each semester the Coordinator of the DCVM summons the CYCCs and the DCVM Council, during which students' performances, possible critical issues in some disciplines, and other relevant items are discussed in order to find possible prompt corrective actions and solutions or to bring the problems to the attention of other bodies/offices (TSJC, School Council, Pro-Rector to Teaching, Director General, Rector, etc.).

b) Pre-clinical practical skills

The evaluation of pre-clinical practical skills and competences is mainly based on problem solving, sometimes by means of laboratory techniques. In Animal Production (Zoocultures and Zootechnics), the skills and competences are evaluated with reference to the activities performed during the practical hours of this course, which are dedicated to the first approach to animal management in farming conditions, including weight of live animals (lambs, piglets, broilers, rainbow trout). In *Economics and Agricultural Law*, as well as in *Biostatistics and Computer Science*, the "Classroom" platform is also used for carrying out the tests.

c) Practical clinical skills

The evaluation of practical clinical skills and competences involves supervised clinical training. Necropsy procedures, gross and microscopical case interpretation, case discussion on animals referred to the VTH (including clinical evaluation, clinical pathology data, radiological, ultrasonographic, and endoscopic image interpretation) are performed. Additionally, practical clinical skills and competences are also assessed comprehensively throughout the training course (through supervision and feedback), in the following activities: *Clinical Rotations, Medical Semeiotics and Pathology; Obstetrics and Clinical Obstetrics; Surgical Semeiotics and Pathology; Surgery and Anaesthesiology; Internal Medicine, Therapy, and Forensic Medicine*. During these curricular courses, some practical exams are performed by each student in order to assess his/her practical competencies, involving one or more real or simulated patient(s) or animal(s) available for performing clinical procedures, or specific veterinary skills and/or competences, such as injections, repositioning, or surgery. The candidate takes on the role of an assistant on his/her first day at work in order to demonstrate the acquisition of the relevant Day One Competences (DOCs).

d) Soft skills

Soft skills are evaluated using presentations, performed individually or in small groups. In these activities, the interaction and involvement of students are requested. The different methods, chosen by the teachers, through which the activities are carried out, promote the acquisition of cross competences, oral, and written communication abilities. These types of skills are also evaluated in the final thesis dissertation. The reading of a scientific article in the economic field is also involved. In some disciplines of the 3rd year of the curriculum, such as *Food Hygiene and Technology, Parasitology and Parasitic Diseases, General Pathology and Physiopathology*, students are encouraged to acquire and improve soft skills by carrying out several activities: supervised self-learning, supervised self-evaluation, supervised lectures given by students, reading and commenting scientific articles, critical evaluation of scientific methods, and preparation of presentations (Power Point or other tools), with final critical discussion, with the evaluation of the class and the teacher.

8.2 The assessment tasks and grading criteria for each unit of study in the programme must be published, applied consistently, clearly identified and available to students in a timely

manner well in advance of the assessment. Requirements to pass must be explicit. The Establishment must properly document the results of assessment and provide the students with timely feedback on their assessments.

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

Processes for ensuring the advertising and transparency of the assessment criteria/procedures

Assessment methods and criteria, along with learning outcomes, course contents, prerequisites, teaching methods and tools, assessment criteria and procedures, and textbook(s), are published online, for each course, at: https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=704483CC7E88D948D6043789A35F3FBF.esse3-unicam-prod-01?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017.

There are other measures that ensure the transparency of the evaluation criteria, as follows:

- at the beginning of each course, students are thoroughly informed, by the teacher, about the exam for that subject: how it takes place, if and how all/some activities (practical and/or theoretical) performed, and possibly evaluated during the course, are taken into consideration for the achievement of the grade; information about exam is also an item evaluated by students in their evaluation questionnaires (see Substandards 8.1 and 9.5); information is also available online;
- some aspects of the exam are also presented, exemplified, and discussed during the course, by the teacher;
- contracted and external teachers must also be informed about the examining procedures in place for the DCVM, and must inform the Coordinator of the DCVM and the Study Programme Administration Officer about the assessment criteria and procedure chosen for their exams.

Processes for awarding grades, including explicit requirements for barrier assessments

Grades are expressed as numbers. For all exams, the minimum passing grade is 18, and the maximum grade is 30 “*cum laude*”. The Examination Committee for each teaching subject is composed of at least two members of the teaching staff, belonging to the specific or related academic disciplines of the subject (see Substandard 9.1). The grade framework and its conversion system for the final graduation assessment is exhibited in Annex 8.4.

At the beginning of each AY, each teacher responsible for a teaching course must indicate to the Study Programme Administration Officer the composition of the Examination Committee for his/her course. The Committee consists of the President (who is the teacher in charge of the course) and at least one colleague as member (plus two or three substitute members). The composition of the Examination Committee is published in the ESSE3 system (see Substandard 7.5a), and must be fully represented in order to examine the students and to register the exam on the ESSE3 system. Ph.D. students and experts called “*cultori della materia*” (experts who know and practice the subject in some form, or have acquired special mentions or awards in the relevant field) may also participate in the Examination Committee as effective members. If there are particular cases to be examined (students who have claimed some evaluation injustices, or who require specific attention in the evaluation), the Coordinator of the DCVM or the Director of the School may also be part of the Committee, as additional member. At the end of their exam, each student is notified individually about the result and the grade. If the grade is accepted by the student, the President of the Examination Committee registers the result in the ESSE3 system, managed by the CINECA-MUR (<https://www.cineca.it/sistemi-informativi-universita/studenti-e-didattica/esse3-student-information-system>) (see Standard 1.2). As many other Italian Universities, UNICAM has chosen such a system in order to manage the complete institutional “assets” of administration, students, and teachers. It includes: the administrative and financial management of students; the management of student career, and the ECTS credits acquired, until the achievement and release of the academic

qualification; data exchange with central and territorial databases (MUR, INPS, Italian Revenue Agency, AlmaLaurea, etc.).

Processes for providing the students with a post-assessment feedback and guidance for the improvement requested

The results of the exams are communicated immediately to the candidates who, after the registration of the results in the ESSE3 system by the teacher, may see the result of their exam online, and constantly monitor their career. Four types of results are possible for an exam: *absent*, when the student does not sit the exam; *withdrawn*, when the student takes the exam, but is not satisfied about the result; *insufficient*, when the student does not reach the grade of 18; *rated* with a grade of 18 or higher. When a student repeatedly withdraws from an exam, there is no specific procedure available, but the UNICAM Governance recommends that the teacher discusses the situation with the student, and see what issues are preventing the final approval. In this regard, the role of Tutors should also be suitable. Since “repeating students” (see Substandard 7.5.a) represent a problem for the DCVM, the teachers are very attentive so as to understand what difficulties the students encounter, and to solve them together, in order for students to successfully complete their career. In order to provide feedback and suggestions for an improvement of the training and assessment process, CYCCs and DCVM Council meetings are held at the end of each semester (see Substandards 1.2 and 1.6). The Coordinator of the DCVM notifies the outcomes of the meetings to the teacher(s) who have faced certain issues with the class (i.e. inadequate information about the conduct of the exam; insufficient teaching material and textbook(s) the preparation of the exam; the arguments of the exam not included in the programme described at the beginning of the teaching course and published online (https://didattica.unicam.it/Guide/PaginaPercorso.do;jsessionid=08B76C089916AE55D029B0F0110E2580.esse3-unicam-prod-02?cod_lingua=eng&corso_id=10013&percorso_id=10013*2017*10000&ANNO_ACCADEMIC_O=2017); the teacher did not provide sufficient explanations about arguments unclear to students, etc.). The notified teacher has to implement all requested adjustments in his/her course, in order to improve students’ opinion and their general and individual performances.

Description of the appeal processes against the outcomes of the assessments

Generally, there are no cases of appeal processes. Rarely, when a student complains that his/her assessment was performed incorrectly, or that heshe failed to pass the exam due to direct problems with the teacher, the Examination Committee may be modified (as previously described), and the Coordinator of the DCVM, or the Director of the School or, in exceptional cases, the Pro-Rector for Teaching Activities of UNICAM, may also participate as additional member(s).

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

How and by whom the student assessment strategy is decided on, communicated to staff members, students, and stakeholders, implemented, assessed, and revised

All examinations are aimed at assessing, as much as possible, both, specific veterinary knowledge, skills, and competences, and professional attitude. During development of the undergraduate curriculum, the format and content of examinations were constructively aligned to predefined learning outcomes. Each question, drafted for summative assessments, is mapped to specific learning outcomes. The programmes of all the subjects, including the evaluation criteria and systems, are annually re-examined through the review process supported by the DCVM Council, the DCVMRRC

and the TSJC (see Substandards 1.6, 3.2, and 3.3). In this way, students are informed and the programme learning outcomes are published on the SBVM-bVM website. The revised Student Guide is then published, in advance, on the DCVM website. Main points in the Assessment Strategy for Examinations are shown in Figure 8.3.

Description of the link between learning outcomes and assessment design

The SBVM-bVM and DCVM Council, making use, among other things, of the monitoring, analysis and improvement activities carried out by the Review Reporting Committee, are responsible for the development of guidelines, and for the evaluation of teaching methods and student results. DCVM Council also receives help and suggestions from the CYCCs and the TSJC, and from UNICAM Educational Working Group, composed Heads of the DCs, and represented by the Pro-Rector for Teaching Activities. The different steps and all the parties involved in this continuous improvement process are illustrated in the flowchart in Annex 8.5. At the end of the procedure, the Coordinator of the DCVM is responsible for guaranteeing a fair and rigorous student evaluation system.

8.4 Assessment strategies must allow the Establishment to certify student achievement of learning objectives at the level of the programme and individual units of study.

The Establishment must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

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

The achievement of expected learning outcomes of different teaching courses is certified by means of the teacher's signature and the registration of grades obtained for the courses in the student's paper logbook, and in the ESSE3 system. These grades contribute to about 90% of the final graduation grade, assigned after the final exam.

The final evaluation of the student, certified by means of a degree certificate, is supported by the evaluation of the thesis, for a maximum of 10 points. The final assessment, following the thesis presentation and discussion, certifies that the learning outcomes have been achieved.

For the certification of all the DOCs acquired during practical activities performed in different teaching courses and during the *Tirocinio*, each student is provided with two new different logbooks (one for preclinical and one for clinical activities), where the DOCs are recorded and certified by the relevant teachers, after the student has demonstrated the acquisition of the same (see Substandard 3.1). A facsimile of each logbook in English language is exhibited in Annex 3.2.

In conclusion, as reported in the previous points, the achievement of all the expected learning outcomes by the students is certified by means of three different logbooks: the exam logbook, and two logbooks for the certification of pre-clinical and clinical DOCs.

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

Students are encouraged to be involved in the learning process using different strategies, with the aim of pointing out all the aspects to be improved. They are encouraged to play an active role in the process through critical evaluation of the training process by means of the questionnaires (see Annex 1.2). From the AY 2020/21 on, new questionnaires in Italian and in English have been published (https://www.unicam.it/sites/default/files/documenti-pag/2020/questionario%20didattica%202020_21_ITA_EN.pdf).

The approach to new teaching methodologies in UNICAM, as well as at the DCVM level, includes an active participation of students, as stated in the TR (<https://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO%20DIDATTICO%20di>

[%20ATENEO_EN2.pdf](#)). Students are thus called to participate in the CYCCs, and they represent an important presence in the DCVM Council, in the TSJC, and in the DCVMRRC. Furthermore, through the tutoring services, they always have the opportunity to express their problems and their propositions, with the aim of improving the Course. Thanks to the great attention that UNICAM dedicates to disabilities, even students with disabilities may actively contribute to the improvement of training activities, as well as to the evaluation of the same.

Finally, through the Committee and the activities of the Pro-Rector for Gender Balance, the student gender representation is respected in almost each body.

Students are encouraged to play an active role in the learning process through teaching evaluations, which include both, a critical evaluation of the assessment methods of the courses aimed at the acquisition of compulsory competences and skills, as well as practical activities aimed at the DOCs acquisition (see Standard 3). The access to the ESSE3 system by each student, giving them the possibility to constantly monitor his/her career and performances, as well as the management of the preclinic and clinic logbooks for the responsible management of the acquisitions of DOCs and skills, enhance the students' sense of responsibility for their own learning. Specific calendar is arranged for ambulatory clinics service performed during the second semester. Students who request to perform their thesis in the clinical field, must be involved as "undergraduate students" for 6 months. A three-month internal period may also be carried out on voluntary basis.

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.

Assessment methodology implemented to ensure that every graduate has achieved the minimum level of competence

The intensive weeks are organised in order to perform intramural and extramural activities, ambulatory clinics, and EPT. In addition, the use of different examination formats, partially combined, allows the learning outcomes, theoretical and clinical skills, and DOCs to be assessed according to the level of training received. All examinations are competence-based. Courses with continuous assessment, where DOCs have to be demonstrated in formative and summative assessments, especially in the clinical rotation, make up 40% of the final grade. Examinations specified in the Examination Regulations may not be taken before successfully completing the specific corresponding courses, listed in the Regulations. Through small-group teaching, skills can be observed individually (DOC) and feedback given directly to the individual (by completing the two logbooks certifying the acquisition of preclinical and clinical practical activities).

Comments on Standard 8

In these last years, many efforts have been performed in order to increase the quality of students' assessment. Further work is required in order to ensure a fair and rigorous student assessment method. Over the recent years, significant attempts have been made to harmonise the examination system. This is still an ongoing process. Some exams are now written, and for oral examinations, a process of harmonisation, aimed at reaching a uniform method of evaluation, is in progress. However, a review of examination methods and the preparation and selection of questions, is still not completed. Starting from the AY 2017/18, the Pro-Rector for teaching activities has also set up a study group at the University level (intended as a "laboratory" for experimentation in teaching

matters), in which the Coordinators of each DC are invited to participate, and in which the student component is also present. In this new, “laboratory” examination and evaluation methods, different teaching activities are examined. This sort of ongoing “laboratory” is very important, because it avails itself of the advice of numerous specialists in Communication Sciences, Psychology, and especially the MUR experts in evaluation processes. Finally, on 31 October 2018, the US approved a document entitled “University policies for learning evaluation”, in which the subject of evaluation is dealt with in an in-depth and innovative way (see the pdf file at: https://www.unicam.it/sites/default/files/documenti/Politiche%20di%20Ateneo%20per%20la%20valutazione%20degli%20apprendimenti_31_10_2018_SA.pdf).

Comments on Standard 8 related to the COVID-19 pandemic

During the second semester of the AY 2019/20, since the beginning of March 2020, exam sessions have been performed online, using the Cisco-Webex platform, where a virtual room was assigned to each teacher and all exams have been held, respecting the calendar previously published. Meanwhile, all the Rector’s decisions related to the pandemic emergency have been published on a specific website (<https://www.unicam.it/ateneo/coronavirus-unicam-comunica>). It must be pointed out that the Webex platform was already used by UNICAM for online teaching activities (not for the DCVM, always held face-to-face) after the earthquakes in 2016 and 2017.

During this semester, teachers have continued to gather the CYCCs online, on the Webex platform, paying attention to the opinion of students about the conduct of the exams.

Since May 2020, UNICAM and the SBVM staff members have started to apply the security procedures against the Covid-19, by re-arranging the spaces and the capacity of classrooms, offices and other spaces, setting the maximum number of persons for each space. Hand sanitiser dispensers have been installed close to each classroom entrance. During the summer 2020, signposting has been placed on the floor and on desks, aimed at showing the place for each student and the path to be followed for entering and leaving the spaces. The app YoUnicam was also developed and made available to students in order to assign a specific seat to each student (see Comment on Standard 4 related to the COVID-19 pandemic).

Suggestions for improvement as regards Standard 8

It would be desirable that, in the near future, a permanent working group for the study and design of new forms of examination and evaluation be constituted within the DCVM as well, which would include a group of students representing each year of the course.

Even though a new questionnaire has been adopted in the AY 2020/21 (see Substandard 9.5), further improvement could be useful, such as the introduction of a questionnaire to be filled out by students, after sitting an exam: an ex-post student evaluation of the exam should become an integral element of the teaching course quality monitoring, ensuring quality for both, teachers and students. An appropriately developed exam assessment could serve as an integrative tool for monitoring student quality and progress, as well.

Greater attention must be paid to the review of the exam results, and to the feedback given by the students regarding the assessments, in order to enhance the new learning paradigm, adopted in 2004 by UNICAM, which adjusts the assessment system moving the centrality from the teacher to the centrality of the students. This will allow to pass from the centrality of teaching inputs based on the transmission of knowledge, to the centrality of learning outcomes, substantiated by competences and skills, of which knowledge is a necessary but not sufficient component, in accordance with the Dublin descriptors.

STANDARD 9 - ACADEMIC AND SUPPORT STAFF

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

Global strategy to ensure the coverage of all requested competences for the veterinary programme, and staff qualification and preparation

According to Italian laws (Ministerial Decree of 4 October 2000, Law No. 240/2010, Ministerial Decree No. 855/2015, as amended), as regards universities, each member of the academic staff must belong to a specific “Academic Discipline” (AD) (Settore Scientifico-Disciplinare). More related disciplines (usually two) are included in an “Academic Recruitment Field” (ARF) (Settore Concorsuale). More ARFs are grouped in a “Group of Academic Recruitment Fields” (GARF) (Macro-Settore Concorsuale). Within the specific veterinary area, all ADs (and ARFs) are grouped in the same GARF (07/H - Veterinary Medicine), the subdivision of which is shown in Table 9.1.1. The structure of the Degree Course in Veterinary Medicine (DCVM) provides that each subject or teaching activity is assigned to a specific AD, but if a teacher belonging to the specific discipline is not present or available, the subject may be covered by a teacher belonging to a related discipline, included in the same ARF. Thus, according to the availability of the funds, the recruitment of teaching staff is essentially based on the needs of the Establishment, in terms of ADs or ARFs. Multidisciplinary courses are covered by teachers belonging to the disciplines involved, and the Head of the Course is appointed from among teachers of the same.

The “historical” budgeted academic staff in Italy includes Full Professors (FPs), Associate Professors (APs), and Assistant Professors (University Researchers - URs), which all represent tenured staff, employed on a full-time or part-time basis.

Apart from these positions, the status of “fixed-term researchers” (Ricercatore a Tempo Determinato -RTD) has been introduced by Law No. 240/2010, whose entry into force (2011) repealed the possibility of recruiting URs, which became a legacy role, which cannot be filled by new positions. It includes two types of RTDs: type A (RTDA or junior researcher) is a typical fixed-term position, employed on a full-time or part-time basis, for three years, with one possibility of renewal for further two years, and may be covered by candidates who have a Ph.D. or an equivalent degree; type B (RTDB or senior researcher) is a tenure-track position, employed only on a full-time basis, for three years, without the possibility of renewal, and is reserved for candidates who already covered an RTDA position for at least three years, or a three-year (even not consecutively) contract, research grant, post-doc fellowship. An RTDB in possession of the Italian National Scientific Qualification (Abilitazione Scientifica Nazionale - INSQ) (see below) is evaluated during the third year, by a specific Commission appointed by the University, and (if eligible) then employed as AP (or even FP). Thus, at present, RTDB may be considered a budgeted position, but RTDA may not. Another initial level of the academic career is the Research Fellow (Assegnista di Ricerca - RF), a non-budgeted position, paid using research funds, made available by one or more interested researchers (broadly speaking). Scholars with appropriate scientific and professional curriculum are eligible for this position, for which a preferential title (sometimes mandatory, depending on the University decision) is the possession of a Ph.D. or a national Specialisation Diploma in Medicine, related to the area involved. Each fellowship can last from 1 to 3 years, and the total duration of the status of RF may not exceed 6 years.

Table 9.1.1. Specific disciplines in Veterinary Area in the Italian Academic System.

Group of Academic Recruitment Fields	Academic Recruitment Field	Academic Discipline
07/H - VETERINARY MEDICINE	07/H1 - Veterinary Anatomy and Physiology	VET/01 - <i>Veterinary Anatomy</i>
		VET/02 - <i>Veterinary Physiology</i>
	07/H2 - Veterinary Pathology and Inspection of Foods of Animal Origin	VET/03 - <i>Veterinary Pathology</i>
		VET/04 - <i>Inspection of Foods of Animal Origin</i>
	07/H3 - Infectious and Parasitic Animal Diseases	VET/05 - <i>Infectious Diseases of Domestic Animals</i>
		VET/06 - <i>Parasitology and Animal Parasitic Diseases</i>
	07/H4 - Veterinary Internal Medicine and Veterinary Pharmacology	VET/07 - <i>Veterinary Pharmacology and Toxicology</i>
		VET/08 - <i>Veterinary Internal Medicine</i>
	07/H5 - Veterinary Clinical Surgery and Veterinary Obstetrics	VET/09 - <i>Veterinary Clinical Surgery</i>
		VET/10 - <i>Veterinary Clinical Obstetrics and Gynaecology</i>

As mentioned before, all positions are linked to an AD, thus each recruitment is made for a specific discipline, essentially through a national public call, and a selection procedure. This allows a position to be covered by a teacher belonging to a specific AD, or a related one, evaluated for this purpose. The Ordinary Financing Fund (OFF), which also includes the budget for permanent staff recruitment (see Standard 2), and the number of possible positions (in the form of “performance-based funding points” (punti organico) - PBFs), are assigned every year by the competent Ministry of University and Research (MUR), according to the performances of the University in the previous years (see Standard 2). Such PBFs may be allocated as follows: 1 PBF for 1 FP; 0.7 PBF for 1 AP; 0.5 PBF for 1 RTDB; 0.4 PBF for 1 RTDA; 0.3 PBF for 1 support staff unit. As an example, if 1 PBF is assigned, it may be used for one new position of FP, or one new AP, + one new support staff, or two new RTDBs, etc. If the progression is internal, only the difference of PBFs between the starting and the final position must be considered (e.g. only 0.3 PBFs from AP to FP). The University decides what part of the budget is to be dedicated to staff recruitment, and on the distribution of PBFs to the different Schools, according to their performances and needs. The employment of budgeted teaching staff is made through a national competition procedure, announced by the University, and with funds from the MUR. Each public selection procedure is intended for a specific AD. The positions of budgeted teaching staff may only be permanent. At present, academic positions for the role of Assistant Professors may be only RTDA or RTDB (fixed-term or tenure-track, respectively). The scientific area(s) involved, the number of positions, and the role(s) to be covered, are decided by the Board of Directors, after receiving an opinion from the University Senate, according to the University plan and programme, depending on the needs communicated by each School (in terms of scientific areas), and on the availability of funds. However, it should be pointed out that there is no official or formal system for assessing the needs of academic teaching staff and, in general, such needs are decided on by the Establishment or University on their own, generally based on their periodic planning and their performances. Only candidates in possession of the INSQ for a specific AD are eligible and may apply for a position of FP and AP. The INSQ for a specific AD and a specific role (FP or AP) is issued upon the request of the candidate, and after the evaluation of his/her scientific qualification, according to the criteria set by specific National Commissions, composed of five FPs, selected by the MUR, via the ANVUR, from among those eligible within the relevant ARF (<https://www.anvur.it/en/activities/asn/>). The national list of qualified candidates, and related evaluation reports, are publicly available on the MUR website (<https://abilitazione.miur.it/public/index.php?lang=eng>), where more detailed information about INSQ may also be found. The INSQ lasts nine years. After that period, the candidate loses the qualification and has to qualify again, by means of another public evaluation for the specific AD he/she belongs to, or wants to apply for. A University that needs to cover an FP or AP position in a given AD must announce a public selection procedure, and qualified candidates may apply.

Subsequently, the University appoints a Commission composed of three FPs (one internal and two external members), who evaluate teaching, scientific, and service activities, and institutional engagement of candidates, based on the predetermined criteria. Finally, a public ranking list is drafted. In some cases (increasingly rarely), the University may decide to launch an internal selection procedure for FP and/or AP positions, in order to facilitate career development for its deserving teaching staff members. In this case, the Selection Committee is also made of three FPs (one internal and two external members).

Other non-budgeted temporary teaching positions (contract teachers) may be assigned, using two different procedures:

1. by direct appointment of highly qualified experts (paid or unpaid), or renowned teachers/researchers/practitioners (paid), whose curriculum is evaluated by the University Evaluation Board (Nucleo di Valutazione di Ateneo - UEU), or by the School involved, respectively;
2. by assignment (paid), through public selection procedures that must ensure a comparative evaluation of candidates, and the publication of records and results.

Other teaching positions are Research Fellows (see Substandard 9.2) and Ph.D. students (at a lower extent).

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

Based on Standard 1.5 (“Teaching staff”) of ESG 2015 (“... Institutions should assure themselves of the competence of their teachers. They should apply fair and transparent processes for the recruitment and development of the staff ...”), the UNICAM Quality Manual (Chapter 6.1 – “Management of teaching staff”) provides that the Governing Bodies (Board of Directors, Director-General, Rector and Pro-Rectors, and University Senate), in charge of the QMS (see Standard 1 of SER, and section 2.2 of QM) set up the criteria to identify its quantitative (e.g. number of teaching courses supported by each AD, number of students, etc.) and qualitative needs (e.g. type and availability of ADs, etc.), in terms of teaching staff (internal and external), and the relevant technical and operational procedures to satisfy such needs, taking into account applicable laws, minimum requirements stated by the MUR, and principles of Human Resources Strategy for Researchers (HRS4R) (https://sgq.unicam.it/sites/sgq.unicam.it/files/documenti/MQ%20ISO%209001_2015%20ENGLISH.pdf). The HRS4R (http://web.unicam.it/sgq/hrs/index_europa.htm) is a mechanism to support the implementation of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers by research institutions. UNICAM received the first HR Excellence in Research recognition in 2014, which was confirmed in 2017, and is to be reassessed within the first semester of 2021. The QM also provides that UNICAM must have human resources adequate to its needs for the achievement of established quality objectives (learning ones in particular), which means skilled and constantly up-to-date staff.

As for the support staff (both, budgeted and non-budgeted), according to Standard 1.5 (“Learning resources and student support”) of ESG 2015 (“... Institutions should have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible ... student support are provided....”), the QM (Chapter 6.2 – “Management of technical-administrative staff”) provides that the Governing Bodies in charge of the QMS also set up the criteria to identify quantitative and qualitative needs of UNICAM, in terms of support to teaching, and the necessary competences needed to ensure an appropriate quality level of services. The verification of such competences is

made both, during the selection, and at the moment of assignment to the teaching department. These principles are also stated in the UNICAM Statute (Art. 13 and Art. 14). Unlike the teaching staff, which is assigned to a specific School at the moment of employment, the support staff is not linked to a specific School, but operates within one of the different UNICAM technical/administrative divisions (Division for Planning, Finances, and Control; Division for Competitions, Purchases, and Assets; Division for Research, Technology Transfer and Project Management; Division for Coordination of Educational Processes and Teaching Activities Management; Division for Technical-Scientific and Large Equipment; etc.), depending on their function. Head of each Division assigns the staff members to the different Schools, maintaining the responsibility over such staff units.

The Governing Bodies in charge of the QMS foster and monitor the implementation of actions for staff training, awareness, motivation, and involvement. UNICAM performs the evaluation of the effectiveness of actions undertaken, according to procedures which will be described in more detail below. The flow-charts of teaching staff and support staff management are exhibited in the respective sections of QM (Chapters 6.1 and 6.2, respectively), and available on the UNICAM website, in the Quality and Evaluation Section (<https://sgq.unicam.it/intranet>, username and password needed).

UNICAM Division for Human Resources, Organisation, and Development (DHROD) manages the entire staff (budgeted and non-budgeted), from the legal point of view (procedures, enrolments, retirements, general institutional issues, information, support, etc.), except for salaries and other additional compensations). Within the Managerial Support Structure, in coordination with the Division for Programming, Evaluation and Quality Systems (DPEQS), the DHROD supports the Director-General in planning and organisation of training events, staff planning, position evaluation, organisational development, staff evaluation and promotion, and planning of the performance evaluation system, as defined by the National Agency for Evaluation of University and Research (ANVUR) (see Standard 1). It ensures continuing education initiatives, especially in the fields of new regulations and technologies, and safety and security in the workplace. The detailed description of the organisation is given in the Organisational Process Mapping Manual (Section 2.B “Technical-administrative organisation of the University - Organisational chart of technical-administrative structure, and relationships with academic structures of the University”), available on the UNICAM website, in the Quality and Evaluation Section (<https://sgq.unicam.it/>, username and password needed) in Italian.

All members (permanent, temporary, external) of the current teaching staff involved in the DCVM are summed up in the list below. As requested by the SOP, a detailed list of academic staff, qualifications, FTE, teaching responsibilities, and departmental affiliations, is given in Annex 9.1. The data are referred to the AY 2019/20.

- a) Teaching staff belonging to the SBVM and involved in the DCVM:
 - 5 Full Professors (3.90 FTEs)
 - 11 Associate Professors (8.22 FTEs)
 - 12 University Researchers (8.88 FTEs)
 - RTDB (3.00 FTEs)
 - RTDA (3.02 FTEs)
- b) Teaching staff belonging to other Schools of UNICAM, involved in the DCVM (in previous years, most of these teachers belonged to the Faculty of Veterinary Medicine):
 - 1 Full Professor (0.45 FTEs)
 - 1 Associate Professor (1.00 FTEs)
 - 1 University Researcher (0.13 FTEs)
- c) Other temporary positions involved in teaching:
 - Contract Professors from other Universities (2.00 FTEs)
 - 1 Contract Professor of English language (0.50 FTEs)
 - Contract Professors from National Health Service (2.00 FTEs)
 - Contract Practitioners who perform extramural activity (2.80 FTEs) and EPT

- 2 Contract Practitioners at the Veterinary Teaching Hospital (VTH) (0.50 FTEs)
- Ph.D. students (0.80 FTEs)
- 1 Research fellow at the VTH (0.50 FTEs)
- 11 Interns at the VTH (5.50 FTEs), formerly fellows

The academic staff (expressed as FTEs) involved in the DCVM is described in Table 9.2.1. The detailed articulation of the same Table is reported in Annex 9.2.

Table 9.2.1. Academic staff of the Veterinary Programme.

Type of contract	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Permanent (FTEs)	25.57	24.89	23.17	24.54
Temporary:	17.62	15.60	15.00	16.07
Interns (FTEs)	5.5 ⁽¹⁾	- ⁽¹⁾	- ⁽¹⁾	5.5 ⁽¹⁾
Residents (FTEs)	-	-	-	-
Ph.D. students (FTEs)	0.8	0.8	1.4	1.0
Practitioners (FTEs)	3.3	3.3	4.3	3.63
Others (specify) (FTEs)	5.0	7.5	5.7	6.07
Total (FTEs)	43.19	40.49	38.17	40.61

⁽¹⁾ Internship not activated in AYs 2017/18 and 2018/19, and activated in 2019/20 (11 interns at 0.5 FTEs each).

It must be pointed out that, ever since 2010, the VTH has been receiving certain funds from local Institutions (Marche Region) for the financing of 10 fellowships, in order to support the 24h emergency service (see Standard 2). These fellowships are assigned, through a public selection procedure, to recently graduated veterinarians, who must apply, and are selected on the basis of an evaluation by a Commission appointed from among the teaching staff belonging to the VTH. This activity aims at helping young veterinarians to approach the professional practice, contemporarily supporting the activity of the VTH, especially during night shifts. This can help improve the educational process, particularly by improving the emergency skills of both, veterinarians and students. They play a professional support role, allowing the hospital to perform the 24h service. Their workload is 8 hours/day, spending about 4 hours/day with students involved in the practical clinical activity at the VTH, even during their shifts. For this reason, each fellow is considered as 0.5 FTE in the relevant tables. Furthermore, they also give seminars to students, and in the AY 2019/20, all research fellows were allowed to carry out a generic rotating internship programme, arranged in order to cover different fields of main European Clinical Colleges. So, in addition to the support to clinical practice at the VTH, they give periodically seminars and journal clubs open to students of the 4th and the 5th year of the DCVM.

As shown in Table 9.2.1, there are no residents, but within the residency programme of the European College of Aquatic Animal Health, the SBVM-bVM has been recognised as a satellite training centre (<http://www.ecaah.org/training-centres/>).

The 24h emergency service is also supported by the students of the School of National Specialisation in Animal Health, Breeding, and Production, who are veterinarians (mostly practitioners), and carry out part of their practical activity in clinical subjects at the VTH. These figures are not considered as teaching staff, and are not included in the relevant tables.

An average percentage of 78.47% of academic staff (calculated as FTEs) involved in Veterinary training is represented by Veterinarians (Table 9.2.2). Between 68.33 and 73.89% (depending on the argument of the final thesis, which affects the calculation with 200 hours) of the training received by the students, as determined by student teaching hours, according to the official schedule, is delivered by qualified Veterinarians (from 2,460 to 2,660 out of 3,600 hours).

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

Type of contract	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Permanent (FTEs)	42.89% (18.14) ⁽¹⁾	42.06% (17.20) ⁽³⁾	42.25% (15.79)	42.40% (17.04)
Temporary (FTEs)	33.60% (14.21) ⁽²⁾	37.91% (15.50) ⁽⁴⁾	36.67% (13.70) ⁽⁵⁾	36.06% (14.47)
Total (FTEs)	76.49% (32.35)	79.97% (32.70)	78.92% (29.49)	78.47% (31.51)

⁽¹⁾ Of which 2 RTDB (2 FTEs) (Gavazza, Troisi).

⁽²⁾ Of which 3 RTDA (2.02 FTEs) (Bazzano, De Felice, Marchegiani).

⁽³⁾ Of which 1 RTDB (0.5 FTEs) (Gavazza).

⁽⁴⁾ Of which 4 RTDA (4.0 FTEs) (Bazzano, De Felice, Marchegiani, Vullo).

⁽⁵⁾ Of which 4 RTDA (3.6 FTEs) (Bazzano, De Felice, Marchegiani, Vullo).

Support staff includes budgeted and non-budgeted positions, and also full-time and part-time positions. It includes administrative and technical personnel and animal caretakers.

All members (permanent, temporary, external) of the current support staff involved in the DCVM are summed up in the list below. In the AY 2019/20, it included the following:

- full-time animal caretakers (2.0 FTEs)
- full-time technicians (3.0 FTEs)
- fixed-term technicians (2.07 FTEs)
- 12 full-time administrative staff (teaching management, administrative staff, account management, library staff, janitors) (11.00 FTEs)
- part-time administrative staff (library, VTH reception) (2.76 FTEs)
- part-time students (0.7 FTEs)
- 4 support tutors (0.4 FTEs)

Most support staff members (expressed in FTEs) are employed at the School on a full-time basis. Two units work full-time, but are involved in the support activities of both branches of the School (SBVM-bVM and SBVM-bB) at the same time (50% at the SBVM-bVM). Three technicians (0.69 FTEs each) work in the teaching laboratories, so they support research activities, but also organise and are involved in some teaching activities, carried out in those laboratories, under the supervision of the teachers. The same applies to the two animal caretakers, as they are also involved in the organising and supporting teaching activities taking place at the VTH. During the AY 2019/20, support staff also included 7 part-time students and 4 students registered as temporary support tutors (see Standards 1 and 7), paid by UNICAM for assisting, in particular, the administrative staff, in different office tasks (library activities, photocopying, document recording, information to students, etc.). These part-time workers (both part-time students and support tutors) are annually assigned to the School by UNICAM, and the positions are covered by students, following their application and selection. Their number may change, depending on the University's funds and School's needs. The contract provides for a total workload of 100 hours, considered as 0.1 FTEs each. Support staff also includes 3 fixed-term technicians with a one-year renewable contract (paid by UNICAM), with a laboratory workload of 25 hours/week (0.69 FTEs each) for teaching, research, and diagnostic tasks. The detailed description of support staff, expressed in FTEs is shown in Table 9.2.3.

Table 9.2.3. Support staff of the Veterinary programme.

Type of contract	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Permanent (FTEs)	17 (16)	17 (16)	16 (15.5)	16.67 (15.83)
Temporary (FTEs) ⁽¹⁾	18 (5.93)	13 (2.34)	11 (1.69)	14 (3.32)
Total (FTEs)	35 (21.93)	30 (18.34)	27 (17.19)	30.67 (19.15)

⁽¹⁾ Including support tutors (0,1 FTEs each) and part-time students (0,1 FTEs each).

Table 9.2.4 shows the number and the relevant FTEs of the research staff at the Establishment. The detailed description of the data included in the Table is given in Annex 9.3. FPs and APs are expected to carry out both, teaching and research activities. As for the researchers (URs, RTDAs, RTDBs), although the Italian law clearly states that their main task should be the research, they are almost constantly involved in teaching activities, even though their teaching workload should be lower than that of FPs and APs. However, such a distinction is purely theoretical, as it really depends on the needs of the institution that the URs work for. For this reason, as mentioned in the initial explanations, while the FTEs for teaching are calculated on the real contribution, given by the different roles involved in the teaching activities at the SBVM-bVM, the FTEs for research are assigned on an average basis, considering 0.2 FTEs for FPs, 0.4 FTEs for APs and 1 for researchers (URs, RTDAs, RTDBs, RFs, Ph.D. students).

Table 9.2.3. Research staff ⁽¹⁾ at the Establishment.

Type of contract	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Permanent (FTEs)	22	22.2	22.2	22.13
Temporary (FTEs) ⁽¹⁾	11.5	9	12	10.83
Total (FTEs)	33.5	31.2	34.2	32.97

⁽¹⁾ Every unit of the academic staff must carry out research activity, the results of which represent one of the most important parameters according to which his/her performances are evaluated. In this Table, only researchers (URs, RTDAs, RTDBs) and other categories having research as their main task (Ph.D. students, Research fellows) are included as 1 FTEs (see text).

Prospected number of FTE academic and support staff for the next 3 academic years

Since the AY 2018/19, the number of students assigned to the UNICAM DCVM by the MUR has noticeably increased, from 27 to 54 (see Standard 7). Unavoidably, in order to meet the ESEVT indicators, and especially to avoid a decrease of the quality level of the DCVM in the future, a policy of staff recruitment should definitely be pursued. Thus, both, academic and support staff, are expected to increase (both as units and FTEs) in the next few years, in order to satisfy certain needs, also due to the close retirements of some staff units, especially within the support staff. However, as in most Italian universities, these needs have to confront the chronic lack of public investments in education and research.

Selection and recruitment of the teaching staff, and training for teaching and assessing the students

As previously described (Substandard 9.1), national laws and decrees regulate the selection and recruitment of the academic staff. According to the principle of autonomy, each University allocates to recruitment a part of the annual OFF (see Standard 2), provided by the MUR. Each School submits its proposals to the Governing Bodies of UNICAM (University Senate, Board of Directors), based on its Strategic Plan and needs. However, it must be pointed out that the selection of any budgeted position may be carried out, mandatorily, only among the candidates in possession of the INSQ (see Substandard 9.1). Such candidates must apply to a national public call, and have to pass the relevant selection procedure. The recruitment of non-budgeted academic positions (RTDAs and, sometimes, RTDBs) is also carried out through a national public call and a selection procedure, but it is not subject to the possession of the INSQ, which however is an additional (in UNICAM, preferential for RTDB position) qualification.

Assignment of teaching courses is a task for the School Council. The priority is given to the internal teaching staff, according to the AD of each member. If no staff members belonging to a specific discipline are available, the teaching course may be assigned to internal teachers belonging to related scientific disciplines (as identified by law), also from among the non-budgeted teaching staff. If no related scientific competences are present within the School, the lectureship is assigned, by call,

within the University (internal call), first to other budgeted teachers of the specific or related disciplines pertinent to other UNICAM Schools, then to the non-budgeted staff members. If there are no such candidates, a public call is launched for a contract teacher outside UNICAM, suitable for the task, for example in other universities, from among practitioners, etc. (external call).

The amount of teaching hours assigned to contract teachers depends on the needs of the School. Actually, the guidelines state that the involvement of external teachers (outside UNICAM) is possible only when specific and acknowledged professional experience cannot be found within the School or the University at the beginning of each AY, and reaching the objectives of the course is considered of strategic importance. This aims at involving in teaching those teachers/practitioners who are particularly skilled in specific fields that the School considers as essential for the training of students, especially (but not only) in practical activities carried out at a farm/production level, including plants. Such teachers are paid using the University funds (tuition fees, incomes from services, etc.), different from the OFF (see Standard 2) paid by the MUR. They are appointed by personal contracts, an example of which is exhibited in Annex 9.4.

All teachers are involved in the staff training programme “UNICAMforma”, and are strongly advised to participate in the programme, even by diffusing information and advertising the initiatives, their meaning and scope. The list of events offered in the last years is publicly available on the DPEQS website (<https://sgq.unicam.it/content/formazione-e-aggiornamento-i-docenti-unicam>) (see Substandard 6.3). They also have to attend courses on workplace safety and security, of different durations, depending on the risk level and their role. Each laboratory or facility has its own security guidelines/procedures related to the risks it has to deal with, developed under general UNICAM, national, and international guidelines, and laws. Contract practitioners, who train students in extramural activities must attend a specific e-course (<https://elearning.unicam.it/course/index.php?categoryid=58>), offered through the UNICAM e-learning platform (see Substandard 6.2).

Selection and recruitment of the support staff, and training for the performance of their specific duties

The support staff is under the direct management of the UNICAM Director-General. For permanent support staff, employment of new units is also made according to the formerly described procedures and criteria, and specific to the University’s planning and funds. The status and the level are decided according to the School needs. New permanent positions are covered by public selection procedures. The evaluation is based on CV, personal aptitudes, and previously acquired competencies in the required field. The support staff includes 4 categories (B, C, D, and EP), divided according to an increasing level of autonomy, responsibility, proven competencies, and duties. Each category is articulated in seven progressive economic levels (from 1 to 7). Recruited staff is gradually integrated, supported, acquainted, and assisted in the acquisition of awareness of their role, tasks, and duties. Support staff constantly undergoes a continuing education process, consisting in attending refresher or new courses on specific topics regarding public administration, and generic aspects, such as safety and security (biosafety and biosecurity in particular), first aid, and fire safety.

As for vacant positions, the University must first try to fill them up through internal mobility of permanent staff (internal calls for intra- or inter-School mobility, based on specific requests or needs for the job). The internal mobility of budgeted support staff may be horizontal (from one economic level to another, within the same category) or vertical (from one category to another). For support staff, the horizontal mobility is possible only for units belonging to the same category, and after proper evaluation by a Committee appointed for that purpose by the University. The vertical mobility is possible only in case of need (i.e. urgency), and for a limited period of time, subject to evaluation by the University. On the other hand, vertical mobility for budgeted positions is possible only through a public call, followed by a selection procedure, as previously described.

If it is not possible to fill in the position(s) by means of internal mobility, the position(s) may be covered, only temporarily, by fixed-term personnel, by means of a contract, generally lasting no more

than 1 year, depending on the urgency. This contract may also be renewed for a short time. At present, this is the case of 3 fixed-term laboratory technicians, and 1 staff unit in the library (all considered as 0.69 FTEs each in Table 9.2.3).

Formal rules governing the outside work of staff members working at the Establishment

Pursuant to Law No. 240/2010 (Art. 6), full-time teaching staff may not perform any other private professional activity, or any form of private work as Veterinarians. A full-time professor may perform consultation activities for the Public Administration, if appointed, but not in a private form. Some similar external activities may be performed upon communication, or permission of the School and the Rector, but such activities must not interfere with institutional duties.

Part-time staff members may perform private professional veterinary activity, providing that there is no conflict of interest and/or forbidden competition against the University. In any case, the salary of part-time teaching staff members is reduced proportionally to the reduction of working hours. Even for the part-time staff, outside work must not interfere with institutional duties.

Routine third-party services included in the clinic and diagnostic work are performed by the staff members on behalf of the University, and may not be carried out as private work. The same activities, carried out on a regular, even if temporary, basis (i.e. laboratory analyses for institutions, farms, establishments, industries, etc.), are subject to a previous contract or agreement of the third-party with UNICAM, and are regulated by specific internal guidelines.

In addition to national laws, the regulation of outside work for UNICAM staff is governed by specific UNICAM Regulations (in Italian), which may be accessed online, at: (http://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO%20DI%20ATENEO%20SULLA%20DISCIPLINA%20DELLE%20INCOMPATIBILITA%27_versione%20approvata.pdf)

9.3 Staff must be given opportunities to develop and extend their teaching and assessment knowledge and must be encouraged to improve their skills. Opportunities for didactic and pedagogic training and specialisation must be available. The Establishment must clearly define any systems of reward for teaching excellence in operation. Academic positions must offer the security and benefits necessary to maintain the 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.

All academic positions, except for RTDBs (see Substandard 9.1), may be employed on a full-time or part-time basis.

The current Italian legislation (Law No. 230/2005) states that full-time FPs and APs must carry out no less than 350 hours (250 for part-time) of teaching activities per year, and full-time RTD 350 hours (200 for part-time). These activities include lectures, practical classes, exams, and participation in collective bodies of the Establishment/University, and related activities. Full-time URs must perform between 250 and 350 hours (between 150 and 250 for part-time) of support teaching activities (university orientation, tutoring, student assessment, practical activities, etc.). Thus, the guidelines set by UNICAM, pursuant to Italian laws governing the assigning of teaching and service tasks to university professors and researchers, and teaching contracts (available at http://www.unicam.it/sites/default/files/regolamenti/Regcdid_0.pdf), state that curricular teaching activities (lectures and practical classes) should primarily be a responsibility of FPs and APs, and then of RTDAs, RTDBs and RFs, who must perform at least 150, 120, 60, 100, and 80 hours/AY, respectively. The involvement of URs in teaching activities is encouraged, but is subject to acceptance (because their tasks should mainly be research activities). If an UR accepts to perform a curricular activity, his curricular teaching load will be 100 hours. FPs, APs, RTDs, and URs (if they

accept to perform curricular teaching activities) may cover even higher loads than those described above, if needed.

The average teaching workload ⁽¹⁾ in the DCVM, calculated for the last three AYs (2017/18-2019/20), is 303.6 hours/AY.

Apart from the teaching load, the rest of the working hours should be dedicated to research, which must be the main task of all researchers (URs, RTDAs, RTDBs, RFs), and third mission. Staff members belonging to the clinical area must also perform service activity at the VTH, or in relevant laboratories (e.g. Pathology labs, Clinical Biochemistry labs, Infectious Diseases lab, etc.). Clearly, many teachers also cover institutional roles, or participate in collegial bodies.

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

According to the principles set by the UNICAM Statute, the UNICAM Quality Manual (Section 4.1 - “Mapping of needs and expectations of interested parties”) also takes into consideration the expectations of academic and support staff, and lists the relevant tools for monitoring and evaluation of such expectations, as shown in Annex 9.5. On this basis, and according to national laws, promotion procedures are arranged in different ways, depending on the type of staff and the promotion in question. Vertical promotion (from one category to another, e.g. from AP to FP) is not permitted by law, unless conducted through a public call, followed by an evaluation by a Commission appointed for that purpose. Horizontal promotion means passing from one economic level to another, within the same category. As regards the academic staff, apart from occasional salary bonus (e.g. *una tantum* incentives), provided by the University, pursuant to Law No. 240/2010 (the last one was received in 2015), in 2010, the two-year automatic economic progression (salary class) was changed into a three-year horizontal promotion system, endorsed by the MIUR for budgeted positions. However, due to the economic crisis, all academic economic progressions (and recruitments) were suspended in 2011, at a national level. The three-year progression system restarted in 2018, and was changed again into a two-year system from 2019 on. This is not an automatic (as earlier), but a merit-based system. According to this system, every year, UNICAM publishes a report file for each teaching staff member where a total score is assigned on the basis of activities (teaching, research, fund acquisition, third mission, and institutional roles covered), performed in the previous three years. Every year, an internal call is published by UNICAM. All staff members eligible for the two-year promotion must apply, and are evaluated by UNICAM on the basis of the score obtained in the previous three years. The promotion is assigned by a Commission (composed of the Rector, the Director-General, and the Directors of the Schools) to those staff members who obtained a minimum score of 12 points. The report file for measurement and monitoring of teaching/research staff performances is consistent with the European Charter for Researchers and the relevant recommendations of the European Commission. Every year, a document containing the indicators and the criteria is published in the

⁽¹⁾ Calculation of average teaching workload = $X + 2X + Y$

wherein:

X = Average amount of teaching hours (67.87 hours) performed by the teaching staff in the DCVM

2X = Preparation for teaching (1 hour of teaching corresponds to 2 hours of preparation)

Y = Average time spent in examinations (100 hours a year, including the final graduation exam sessions)

relevant approved Performance Measurement and Monitoring System (see Substandard 9.5 for more details), and is publicly available online, at: <https://sgq.unicam.it/documenti/programmazione-e-monitoraggio-della-performance>.

The entire procedure for horizontal progression of budgeted teaching and research staff members is available online at: http://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO_classiscatti%20stipendiali_%20docenti_per%20pubblicaz.pdf.

It must be pointed out that URs are not obliged to perform curricular teaching activities, but only support teaching activities. However, UNICAM supports and promotes their teaching activities, and those URs who give their consent to perform curricular teaching activities are awarded additional economic recognition, in the form of (small) research funds.

Teaching staff involved in the VTH and diagnostic activities may also benefit from special economic recognition from the VTH, and/or laboratory incomes, awarded according to proportions approved by the SBVM Council.

Furthermore, the Self-Evaluation, Periodical Evaluation, and Accreditation (AVA) System, set up by the ANVUR and the National Research Quality Evaluation (VQR) System, also represent indirect additional supports in this context for the School, because, according to the overall performances in teaching/education and research, respectively, the MUR assigns additional resources to the University, which may be dedicated to increase the number of positions, and thus also the possibility of vertical promotions for teaching and support staff members. Information in English about AVA and VQR Systems may be found on the ANVUR website (<https://www.anvur.it/en/activities/ava/> and <https://www.anvur.it/en/activities/vqr/>, respectively)

Support staff members also may benefit from e horizontal or vertical economic progressions (see Substandard 9.2), implemented annually, according to the available resources. These progressions are regulated by a system based on internal calls. Support staff members may receive a horizontal progression only after remaining in an economic position for at least two years. Those who are eligible for the horizontal progression (even the Heads of different Divisions) must attend a specific course, with a final evaluation. A final ranking list is then drawn up, according to the score obtained and to the seniority of candidates. Finally, the number of staff members who may obtain the progression is defined in order of ranking, on the basis of the available budget. The vertical progression is awarded after passing a specific evaluation, including an exam, by a Commission appointed by the Director-General for this purpose.

Support staff members involved in the VTH and laboratory activities may also benefit from incomes from third parties, according to position coefficients.

Both, academic and teaching staff, are represented at all levels of the decision-making process, being present in all governing bodies of UNICAM, according to the Statute: Board of Directors, University Senate, Assembly of Representatives, Single Committee for Guaranteeing the Promotion of Equal Opportunities and Welfare and Against Discriminations.

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. Description of the formal system in place for assessing the teachers by the students

According to Italian legislation (Legislative Decree No. 150/2009), management of the Cycle of Performances in the Public Administration Area should be applied, in all Italian public universities, only to support staff, by specifying the steps of the cycle and identifying procedures and tools for performance measurement, management, and evaluation. Thus, teaching staff and researchers (and the relevant teaching and research departments they belong to) should stay outside this system. This difference is due to the different logic that these two professional areas follow: the academic area is

based on autonomy and self-regulation of professional work, while the support staff area is based on hierarchical organisation and goal-oriented principles.

In this context, UNICAM decided to set up a policy of performance analysis and evaluation, intended for the entire organisation, searching for contact points among different levels of governance and management, and different logics of components, which resulted in its own Performance Measurement and Evaluation System. It is the tool by which UNICAM annually evaluates organisational and individual performances to improve the quality of services provided and professional competences, and to enhance the value of merit.

Every year (generally in January), a three-year Comprehensive Plan of Performances, and the relative Performance Measurement and Evaluation System, are drawn up by the DPEQS and approved by the UNICAM Board of Directors, following the favourable opinion of the UEU. In the light of UNICAM mandate, mission, and general strategic plan, each three-year plan focuses on the following aspects: strategies in research, education, social responsibilities, transparency of information, transfer of knowledge and competences, innovation, development, and management of human resources; context analysis (including SWOT analysis); expected performances in research, education and teaching, and third mission.

The rationale of the Performance Measurement and Evaluation System is structured in four parts: organisational performance of academic structures (UNICAM Schools), individual performance of teaching/research staff, organisational performance of technical and administrative divisions, and individual performance of support staff members. A schematised representation of the rationale is exhibited in Annex 9.6.

All approved Comprehensive Plans of Performances, Performance Measurement, and Evaluation Systems, and annual Reports on Performances (with the relevant results and discussion on such performances) are publicly available (in Italian) on the DPEQS website, at: (<https://sgq.unicam.it/documenti/programmazione-e-monitoraggio-della-performance>).

Based on Standard 1.7 (“Information management”) and Standard 1.9 (“On-going monitoring and periodic review of programmes”) of ESG 2015 (“... Institutions should ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities ...” and “... should monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews should lead to the continuous improvement of the programme. ...”), the UNICAM Quality Manual (Chapter 8.1 – “Customer satisfaction survey” and Chapter 8.2 – “Internal audit”) provides that the level of satisfaction of teachers, students (and their families), and the other partner companies (external stakeholders) is monitored, analysed, and communicated. Monitoring of satisfaction is carried out through questionnaires (addressed to students and teachers) and checklists (for interviews with families and companies), the results undergo statistical processing, and are then communicated to the different parties. Starting from the AY 2020/21, a new questionnaire was introduced, taking into account some suggestions given by students and teachers to the DPEQS, through different bodies.

Regarding the tools used for evaluation of teaching, two types of questionnaires are implemented for each teaching course: one addressed to the students, and the other one to the teachers. Description, explanation, and instructions of the questionnaires are published on UNICAM students’ website, both in Italian (<https://www.unicam.it/sites/default/files/documenti-pag/2016/guida%20per%20questionari%20valutazione%20didattica%202015-2016.pdf>), and in English language (https://www.unicam.it/sites/default/files/documenti-pag/2016/Instructions_ENG.pdf) and on the teachers’ website (<http://www.unicam.it/personale/servizi-docenti>), respectively. Until the AY 2019/20, the questionnaires for students were divided into one type addressed to students who attended more than 50% of lectures, and the second type for students who did not. The English version of the old student questionnaire, in use until AY 2019/20, is exhibited in Annex 1.2. Apart from preliminary questions about the course attendance, the old questionnaire for students provided information and evaluation

about five dimensions: teaching; tenure; classrooms and equipment provided for additional educational activities; examination; interest and general satisfaction. The new questionnaire for students (available at http://www.unicam.it/sites/default/files/documenti-pag/2020/questionario%20didattica%202020_21_ITA_EN.pdf), was implemented in the AY 2020/21, and is offered both in Italian and in English. It provides 5 general preliminary questions (similarly as the old one), and then asks for the evaluation of three dimensions: educational activities (6 questions), the teacher (9 questions), and general satisfaction level and suggestions (3 questions and several suggestion options). In the old, as well as in the new questionnaire, the score ranges between 1 (maximum dissatisfaction) and 4 (maximum satisfaction). Scores lower than 3 are considered below the attention threshold, and must be reported by the Head of the Degree Course in the annual review document for the ANVUR (see Standard 1), together with the relevant improvement actions. As a general UNICAM rule, the results of questionnaires are collected by the DPEQS, analysed, and then returned to the relevant Schools, before the end of the AY. The results are then discussed among student representatives and teachers within the Teacher/Student Joint Committee (TSJC). Any critical issue is highlighted, and possible solutions are proposed. Such solutions are submitted to the School Council, which directly provides for the adoption, or, if necessary, communicates the issue(s) to the relevant body. For the SBVM-bVM, the organisation is slightly different: the results of questionnaires for the DCVM are requested from the office at the end of each semester, and when they are available, each Course Year Coordination Committee (CYCC), which is composed of one Coordinator, all teachers of the relevant year, and one or two student representative(s) (see Substandard 1.2), meets to discuss the results and other items. Then the Board of the Coordinators of CYCCs (composed of the Coordinators and student representatives of all CYCCs, and the Coordinator of the DCVM) meets to discuss all the issues arisen in the semester, and proposes the relevant solutions, which may be immediately applied (if possible), or must be submitted to the School Council. Minutes are drawn up for each meeting. The aggregate results of student questionnaires for each Degree Course are publicly available on the UNICAM website, on the page of the Division for Programming, Evaluation, and Quality Systems Self-Certification (http://web.unicam.it/sgq/questionari_didattica.htm). The disaggregated data (referred to each single teaching course, and thus to each teacher) are available to the Rector, the Pro-Rector for Teaching Activities, the School Director (for the Degree Courses belonging to his/her School), and the Coordinators of the Degree Courses (each for the data referred to the course he/she is responsible for). The Coordinator of each Degree Course shares the disaggregated data, referred to the different years and teaching courses, with the members of the relevant DCC, including student representatives. Naturally, each teacher may access disaggregated data referred to his/her teaching course. The Director may share the disaggregated data with School Council members, in case of collegial discussion. The evaluation of teaching activities by teachers themselves, through questionnaires, is a tool aiming at surveying teachers' opinion, in order to compare them to those of the students, aimed at improving the teaching and Degree Course organisation. This tool is recommended by the ANVUR among those necessary for an effective quality assurance system in teaching. The complete UNICAM guidelines, in Italian, on the accessibility and correct use of the results of student and teacher questionnaires on teaching activities, are published on the web page of the Division for Programming, Evaluation, and Quality Systems Self-Certification (<http://web.unicam.it/sgq/Linee%20guida%20utilizzo%20questionari%20didattica%20SA25-3-2014.pdf>).

Comments on Standard 9

Italian mechanism of staff (especially teaching staff) recruitment is very complex and confusing, due to a great number of laws and the possible positions to be covered (FP, AP, UR, RTDA, RTRDB, RF, etc.), and the mechanism of ADs, ARFs, and GARFs, which seriously limits the possibility of

application by candidates, but also due to the excessive bureaucracy, which is a typical Italian problem.

Among the outputs of the EAEVE 2011 visitation, the number of staff members was considered a minor deficiency. But, considering that the ratios involving academic staff and support staff were calculated by comparing the FTEs of the teaching staff with the number of undergraduate students, and the FTEs of the teaching staff with the FTEs of the support staff, respectively, for several years, the number of academic and support staff members of the DCVM did not cause particular concern, due to the decrease of the number of students assigned to the DCVM by the MUR: from the average number of 64 students in the five-year period 2005/2006 - 2009/2010, to the average number of 28.2 in the period 2010/2011 - 2014/2015. However, with the reform of the ESEVT, the introduction of single-stage visitations, and the change of ratios into indicators introduced by the SOP, approved in Uppsala in 2016, some criteria for the indicators have changed, and some possible actions have been identified by the School internal EAEVE Board, in order to meet the ESEVT ranges. Thus, a policy of increasing the number of academic and support staff was planned, but since 2016, the entire community, and the UNICAM management, have been completely distracted from this problem for several years, having had to face the extremely difficult situation due to the earthquakes of 2016 and 2017. Furthermore, the Italian University System was deeply challenged due to the economic crisis that led to the shutdown of economic progressions for both, academic and support staff, from 2011 until 2015. Between 2015 and 2018, the academic staff remained the only category of the Italian Public Administration System without any economic progression. During this period, the recruitment was also suspended. However, significant efforts have been made to direct the numbers toward an increase, as shown by the trend of FTEs of academic and support staff, exhibited in Table 9.2.1 and 9.2.3, respectively.

At the SBVM-bVM, the CYCCs and the relevant College of Coordinators of CYCCs are the only examples in UNICAM of bodies responsible for the discussion, at the end of each semester, of specific issues of every single year of the degree course. They are governed by the Regulations of the DCVM (Art. 38), and are considered by the UNICAM management as a useful tool, especially for the discussion of the results of student evaluation questionnaires. These Committees were considered as effective tools also by the ANVUR and the ISO 9001:2008 accreditation bodies.

Comments on Standard 9 related to the COVID-19 pandemic

The pandemic emergency of 2020 (AY 2019/2020) did not have any consequences on the issues described in the present Standard. Not even the results of student questionnaires were much affected by the challenges posed by the pandemic, given that the students perceived the efforts made by the staff to offer, as much as possible, quality remote teaching and alternative activities during the lockdown.

Suggestions for improvement as regards Standard 9

It is quite difficult to give suggestions to improve and lighten the Italian University System (and Education System in general).

The number of both, teaching and support staff members, has to increase in the years to come, in order to better meet the ranges of ESEVT indicators, due to the increase of students assigned the UNICAM DCVM by the MUR in the last three years.

The student evaluation system, through questionnaires, seems to work well, but probably the 4-point based score needs to be modified (e.g. into a 10-point score). A wider scale-based system would allow to better discriminate among real and uncertain critical issues.

STANDARD 10 - RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

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

Description of how the research activities of the Establishment, and the involvement of the majority of academic staff members in the same, contribute to research-based veterinary education

The Research Committee of the SBVM has been designated by the School Council Resolution No. 58 of 8 May 2019, with the purpose of monitoring the research activity of the School. In particular, in the period June 2019 - February 2020, the Research Committee of the SBVM carried out a survey on the state of research, aimed at highlighting any critical issues and actions to be implemented, in order to increase the scientific productivity. The monitoring activity was carried out in two phases:

- 1 - acquisition of data related to research productivity indicators;
- 2 - meeting of the Research Committee with each research group.

As a result, a final report was drafted, which outlines the current research activity of the School. This document has been presented to the School Council, and approved on 5 February 2020. From this document, it may be deduced that the overall scientific production of the SBMV in the 2015-2018 period amounts to 652 research products, 241 of which in the Q1 class, and 65 in the top 10%. The average productivity per teacher/researcher per year was found to be 2.2 scientific publications, 0.8 of which in the Q1 class, and 0.2 in the top 10%.

Furthermore, from the Research Committee report, it can be evinced that the activities of the SBVM are very diverse, they span from basic to applied research projects, and cover a wide variety of subjects, developed around four main pillars:

1. **Environmental sustainability:** research activities investigate the effects of climate changes and anthropic impacts on biodiversity, in an effort to describe and understand the adaptive responses that could occur at individual, population, or species levels, by a multi-disciplinary approach. The variety of approaches is essential for the integrated detection of early alterations occurring at different levels of complexity, in order to provide guidance on the implementation of conservation strategies and sustainable usage of natural resources.
2. **Human health:** research in this field focuses on several different aspects, such as the evaluation of the effect of dietary interventions on metabolic pathways and tissues/organs functionality, in order to investigate new strategies against non-communicable and age-associated diseases; role of toxins and environmental pollutants in the onset and progression of human disorders; evaluation of tumour progression, and intervention in *in vivo* and *in vitro* models; study of microorganisms, such as viruses, bacteria, parasites, and fungi, responsible for zoonotic diseases. This area also includes the research and development of new antibiotics, and the study of mechanisms of antibiotic resistance.
3. **Animal health:** research activities focus on the analysis of animal anatomy, physiology, and mechanisms behind animal diseases. Different studies also investigate aetiology, diagnosis, treatment, and follow-up of different conditions. Innovative methodologies, such as the study of metabolome, faecal microbiome and proteome, are also practiced. Pets, large animals, and farm animals are routinely studied. Research in animal sciences, such as zootechnics, and the assessment of chemical and biological contaminants on animals and animal-derived matrices, as well as the animal well-being with repercussions on animal and human health, following the One Health Perspective are also of considerable interest.
4. **Nutrition and food:** research activities focus on the analysis and the comprehension of the relation between diet and nutrition, with the objective to contribute to the health and the wellbeing

of humans and animals. The aim is to understand the biological and behavioural determinants of food intake, including sensory qualities and satiety; support sustainability of food production; pursue quality and safety of food and feed productions; improve livestock sector, paying attention to animal welfare and productive performances; promote nutritional education; understand diet-mediated physiological changes on the transition between healthy and unhealthy or dysregulated states; actively collaborate with the food and feed industry in order to drive innovation in healthy food products; develop food and feed to meet specific needs of consumers.

The SBVM, on the whole, avails itself of unique research facilities that allow in-field data collection and research activities, even though not all those facilities have such direct benefits on the DCVM. These facilities include:

- VTH for small (SACD) and large animals (LACD), an insectarium (one of the largest in Italy, with a collection of insects with medical and agricultural interests);
- Nature reserves (mountain reserves, such as Natural Reserve of Torricchio [<https://riservatorricchio.unicam.it>], and costal/sea reserves, such as Regional Natural Reserve Sentina);
- Botanical collections: Floristic Research Centre of the Apennines (Centro Ricerche Floristiche dell'Appennino), located in Barisciano (AQ), the Gran Sasso and Laga Mountains National Park, Garden of the Apennine Flora, and the Botanical Garden of Camerino (MC);
- Marine Turtles Recovery Centre (San Benedetto del Tronto);
- Human Nutritional Laboratory (NutriCam).

Moreover, the SBVM has extensive contacts and interactions with local, national, and international artisan and industrial partners and research organisations.

The involvement of the DCVM academic staff in research activities, which contribute to research-based veterinary education and collaboration with other national and international universities/research organisations, is brought to light by many research projects and numerous scientific publications in peer-reviewed international journals. Annex 10.1 lists peer-reviewed and indexed scientific publications by research and teaching staff in the period 2017 - 2020.

In Table 10.1.1, the list of major funded research programmes and research agreements, in which the SBVM-bVM is involved, is exhibited. Projects and contracts under € 5,000 are not included in the Table.

Furthermore, active patents registered by SBVM-bVM staff are listed below:

1. Formula containing *Bacillus Calmette-Guerin* with COX2 selective/preferential inhibitor and uses thereof (Rossi Giacomo, Scarpona Silvia). Pat. No. WO-2013050947-A1
2. Method and kit for the diagnosis of Proventricular Dilatation Disease (PDD) in parrots (Rossi Giacomo, Pesaro Stefano), United States Patent 9081025
3. Modulation of biophotonic regimens (Rossi Giacomo; Piergallini Remigio; Loupis Nikolaos, Palumbo Piccionello Angela, Marchegiani Andrea; Spaterna Andrea; Salvaggio Alberto; Ohayon David), Pat. No. Wo2019095073 (A1) - 2019-05-23
4. Biophotonic compositions, methods and kits for enhancing hair growth (Rossi Giacomo; Piergallini Remigio; Loupis Nikolaos; Palumbo Piccionello Angela; Bellini Francesco; Scarpona Silvia), Pat. No. WO2019095072 (A1) - 2019-05-23
5. Biophotonic compositions for treating skin and soft tissue wounds having either or both non-resistant and resistant infections. (Bellini Francesco, Salvaggio Alberto, Palumbo Piccionello Angela, Spaterna Andrea, Loupis Nikolaos, Hebert Lise, Ohayon David, Piergallini Remigio), Pat. No. WO2017120674 (A1) - 2017-07-20

Table 10.1.1. List of the major ongoing funded research programmes and agreements involving SBVM-bVM academic and research staff (period 2017/18 - 2019/20).

Project name	Grant (€)	Duration (period)
CREW - Coordinated Wetland management in Italy-Croatia cross border region-INTERREG Italy - Croatia (Basic Sciences)	232,400	12/2018-05/2021
LaunTeNaBio - Launch Test of Natural Biocides for the Control of Insect Borne Diseases- Horizon 2020 - ERC POC 2018 (Parasitology)	134,060	04/2019-09/2020
KLOX Technologies - Agreement (Pathological Anatomy)	60,000	10/2018-12/2020
KILLOB-FAR 2019 - (Anatomy)	50,897	07/2020-present
MICENE-FAR 2019 - (Parasitology)	50,897	07/2020-present
DONG E E-JIAO - Agreement (Internal Medicine)	34,000	09/2015-08/2020
FB HEALTH - Agreement (Internal Medicine)	30,444	12/2017-12/2020
KEMIN - Agreement (Zoocultures)	26,411.27	12/2017-12/2020
HI FOOD SPA - Agreement (Food Science)	22,000	09/2018-12/2020
MILKBIOACTINCAPS-Unibas - Agreement (Basic Sciences)	21,163.94	08/2019-08/2021
GLAXOSMITHKLINE Vaccines - Agreement (Pathological Anatomy)	20,000	05/2017-12/2022
Pontenossa SPA - Agreement (Zoocultures)	18,000	07/2019-06/2021
FB VISION srl studi clinici (Internal Medicine)	12,687.76	01/2018-12/2020
Otech Industry Srl - Agreement (Surgery)	5,000	12/2019-12/2020
IDVET - Agreement (Microbiology)	5,000	10/2019-08/2020
EUREKA project: Use of RIGENERA procedure in the treatment of dog arthritis	26,000	01/2018-12/2020

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

Description of how the (undergraduate) students are:

- made aware of the importance of evidence-based medicine, scientific research, and lifelong learning

- introduced to bibliographic search, scientific methods and research techniques, and writing of scientific papers

The SBVM-bVM has Chemistry, Biochemistry, Morphology, General Microbiology, Food Analysis, and Molecular Biology laboratories, where students may perform practical activities and research work aimed at carrying out their experimental thesis. If the students want to deepen some aspects during the preparation of their degree thesis, the SBVM has several agreements with agrozootechnical farms and processing industries of local, national, and even international importance, where students may experience the role of Veterinarian in animal productions. The

clinical research activity may be carried out at the VTH, with up-to-date medical and surgical instruments.

Thanks to all these activities, the students are introduced to the world of research, because they may perform laboratory experiments, clinical studies, analytical activities, internet-based bibliographic searches, depending on the training activities attended. Furthermore, during their training period, the students have the opportunity to attend conferences, seminars, and round tables in specific fields of interest.

Finally, during the annual report meeting of the Ph.D. students, undergraduate students are strongly encouraged to participate, having the opportunity to approach the world of research and science communication.

In 2014, UNICAM promoted the institution of thematic scientific platforms on multidisciplinary topics of interest to the University, and in accordance with Horizon 2020. These platforms are intended to provide a contribution to research, innovation, and development of relevant issues, and they encourage the cooperation of researchers from different disciplines on subjects of common interest. The SBVM-bVM researchers participate in two thematic platforms: “Food and Nutrition” and “Human and Animal Health”. Every year, the two above-mentioned thematic platforms organise a joint conference day. During this meeting, researchers and Ph.D. students have the opportunity to discuss the results of their research, in the presence of undergraduate students.

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

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

For the preparation of the final thesis, during the last year of the DCVM, undergraduate students have the opportunity to actively participate in research activities, under the supervision of their tutors. At present, students may choose to carry out an “experimental” or a “critical-review” thesis. In the case of “experimental thesis”, they are actively involved in research activities within the research group in which they have chosen to carry out the thesis: they carry out experiments, analyses, data collection and processing, bibliographic searches, and finally, they write their thesis in the format of a scientific publication (introduction, materials and methods, results, discussion, conclusions, references, acknowledgments). In the case of a “critical-review” thesis, students must carry out a critical review of scientific literature regarding a chosen topic, and the thesis work is based on a deep bibliographic search and analysis. In both cases, during this period of training, students experience group working, and are encouraged to operate with defined degrees of autonomy, as well as to familiarise with the scientific English language. Students may also carry out their thesis work partially or totally abroad, thanks to the International Mobility initiatives, already activated by UNICAM (see Substandards 1.2 and 7.7).

A student may choose the research topic on which to develop his/her graduation thesis, within a range of proposals offered by the tutor. In Figure 10.1.1, the research topics chosen by the students (%) in different areas during the AYs 2017/18, 2018/19 and 2019/20 are shown. However, the data reported are incomplete for the AY 2019/20, and will be available in March 2021.

The percentage of “experimental” and “critical-review” theses, during the period 2017-2019 and 2019-2020, was 73.5 and 26.5%, respectively.

The thesis work is reviewed by the tutor teacher, and the results are presented, by means of a slide show, to the Graduation Committee on the day of the final exam. Students have 15 minutes to present their results, and at the end of the presentation, the members of the Committee may ask questions aimed at deepening some aspects of the thesis work.

Obviously, besides the thesis preparation period, students are offered the opportunity to attend the laboratories of a specific area as undergraduate intern students, also on a non-compulsory basis.

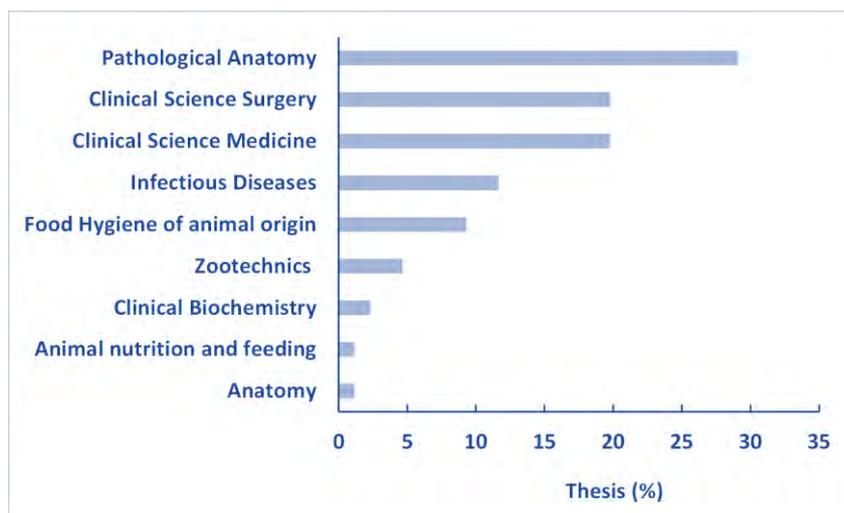


Figure 10.1.1. Average percentage of thesis topics, chosen by students of the DCVM in different research areas in the AYs 2017/18, 2018/19, and 2019/20.

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

The SBVM-bVM permanently provides the following postgraduate programmes, for an average total of over 120 students in the last three AYs:

- School of National Specialisation in “Animal Health, Breeding and Production” (AHBP), activated in the AY 2010/11, has a duration of 3 years, is currently activated every year and can enrol a maximum of 25 students for each cycle;
- School of National Specialisation in “Hygiene and Control of Fishery and Aquaculture Products” (HCFAP), activated in the AY 2011/12, has a duration of 3 years, is currently re-activated at the end of each cycle, and can enrol a maximum of 20 students;
- Annual clinical training fellowships, funded by the Marche Region in order to support the 24/7 VTH; from the AY 2019/20, these fellowships allow research fellows to carry out internships (see Table 10.3.1); a total of 31 fellowships were funded in the last three AYs (2017/18, 2018/19, and 2019/20);
- Ph.D. course in the “One Health” curriculum has a duration of 3 years, is currently activated every year, and has a number of available places determined annually.

The diploma of the School of National Specialisation is a prerequisite to access the National Health System through a public exam.

The SBVM-bVM also provides other postgraduate programmes, like specialising Masters, other courses (advanced, refresher, training courses), and continuing education programmes. In the last 3 AYs, the following courses have been activated (see Table 10.3.3 and Table 10.3.4):

- one second-level Master in “Management of Coastal Areas and Aquatic Resources” (MCAAR), one second-level Master in Veterinary Cardiology (ISO 9001:2015 certified in November 2020);
- three Courses activated in the AY 2019/20 on “Risk Protection in Marine Environment” (RPME), “Artisanal Master Cold-cuts Maker” (*Mastro Norcino*), and “Operator in Small Touristic Infrastructures” (*Operatore della Piccola Recettività*). These programmes responded to specific requests from the territory, and were addressed both, to students and professional operators. In Table 10.3.3, the number of Veterinarians (and the total number of attendees in brackets) enrolled in these courses (plus the School of National Specialisation in HCFAP) is shown;

- about 20 continuing education programmes were offered in order to respond to local or professional needs. They generally provide practical activities and therefore cannot be offered in e-learning mode. For several years, the SBVM-bVM has been regularly carrying out continuous educational courses in collaboration with the Italian Society of Traumatology and Veterinary Orthopaedics (Società Italiana di Traumatologia e Ortopedia Veterinaria - SITOV) and the Italian Society of Ultrasound in Medicine and Biology (Società Italiana di Ultrasonologia in Medicina e Biologia - SIUMB), being one of the training centres for both scientific Societies. The SBVM-bVM routinely collaborates with the Regional Health Agency of the Marche Region for the implementation of continuous training courses in the fields of food safety and first aid in domestic animals. The temporary unavailability of the premises, due to the 2016 earthquake, and the temporary closure of the university facilities in the AY 2019/20, due to the Covid-19 pandemic, have affected the overall number of continuing education programmes.

There are no residents, but within the residency programme of the European College of Aquatic Animal Health, the SBVM-bVM has been recognised as a satellite training centre (<http://www.ecaah.org/training-centres/>).

As regards the postgraduate research training, the SBVM-bVM activates, for specific research projects, one-year research grants and fellowships, and collaboration contracts (in addition to the fellowships funded by the Marche Region for the VTH), with a maximum duration of 1 year. In the present report, only those assigned to Veterinarians are listed (Table 10.3.2). A total of 43 positions were activated in the last three AYs (2017/18, 2018/19 and 2019/20), as shown in the item “Total Others” in Table 10.3.2.

Table 10.3.1. Number of students registered in postgraduate clinical training; the means have been calculated only from the year of activation onwards.

	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Interns:				
Companion animals	8	- ⁽³⁾	- ⁽³⁾	8
Equine	3	- ⁽³⁾	- ⁽³⁾	3
Production animals	-	-	-	-
Others	-	-	-	-
<i>Total</i>	<i>11</i>	<i>- ⁽³⁾</i>	<i>- ⁽³⁾</i>	<i>11</i>
Residents:				
EBVS disciplines (specify)	-	-	-	-
<i>Total</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
Others (non-EBVS programmes):				
AHBP ⁽¹⁾	74	74	77	75
Fellows (for 24/7 VTH) ⁽²⁾	-	10	10	6.7
<i>Total</i>	<i>74</i>	<i>84</i>	<i>87</i>	<i>81.7</i>
Total	85	84	87	85.3

⁽¹⁾ School of National Specialisation in “Animal Health, Breeding and Production.

⁽²⁾ Funded by the Marche Region.

⁽³⁾ Not activated yet.

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

Type of contract	AY 2019/20	AY 2018/19	AY 2017/18	Mean
Ph.D.	4	4	7	5
<i>Others:</i>				
Research grants	6	4	3	4.3
Fellowships ⁽¹⁾	3	6	1	3.3
Collaboration contracts	10	3	7	6.7
<i>Total others</i>	<i>19</i>	<i>13</i>	<i>11</i>	<i>14.3</i>
Total	23	17	18	19.3

⁽¹⁾ In addition to the fellowships funded by the Marche Region for the VTH (not included in this Table).

Table 10.3.3. Number of Veterinarians (and total number of attendees) registered in other postgraduate programmes of the Establishment, but not related to either clinical or research work (including any external/distance learning courses); the means have been calculated only from the year of activation onwards.

Postgraduate programmes	AY 2019/20	AY 2018/19	AY 2017/18	Mean
HCFAP ⁽¹⁾	22 (22)	20 (20)	20 (20)	20.7 (20.7)
Second-level Master “Veterinary Cardiology”	-	46 (46)	- ⁽²⁾	23 (23)
Second-level Master “MCAAR”	3 (11)	- ⁽²⁾	4 (9)	2.3 (6.7)
Course “Mastro Norcino”	0 (27)	- ⁽²⁾	- ⁽²⁾	0 (27)
Course “Operatore della Piccola Recettività”	0 (14)	- ⁽²⁾	- ⁽²⁾	0 (14)
Course “RPME”	2 (21)	- ⁽²⁾	- ⁽²⁾	2 (21)
Total	27 (95)	66 (66)	24 (29)	39 (63.3)

⁽¹⁾ School of National Specialisation in “Hygiene and Control of Fishery and Aquaculture Products”.

⁽²⁾ Not activated yet.

Table 10.3.4. Number of attendees of continuing education courses provided by the Establishment; the means have been calculated only from the year of activation onwards.

Continuing Education courses	AY 2019/20	AY 2018/19	AY 2017/18	Mean
One Health and Communication	-	-	11	3.7
Integrated Veterinary Medicine	-	-	40	13.3
Endocrinopathies in Dogs and Cats	-	15	- ⁽³⁾	7.5
SITOV course on Dog Thoracic Limb Orthopaedics	-	-	20	6.7
SITOV course on Orthopaedics and Traumatology	-	40 ⁽⁴⁾	20	20
SITOV course on Diagnostic Visit and Bandages	cancelled	- ⁽³⁾	- ⁽³⁾	-
SITOV course on Veterinary Traumatology	cancelled	- ⁽³⁾	- ⁽³⁾	-
SIUMB course on Ultrasound	cancelled	50	100 ⁽⁴⁾	59
SIUMB course on Echography	cancelled	4	13	5.7
First Aid in Domestic Animals ⁽¹⁾	-	34 ⁽⁴⁾	- ⁽³⁾	17
Food Waste Reduction, Food Surplus Recovery ⁽¹⁾	-	-	30	10
Protecting Animal Welfare at Slaughter ⁽¹⁾	-	30	- ⁽³⁾	15
National Congress of the AIVI ⁽²⁾	cancelled	-	-	-
Total	-	136	143	87

⁽¹⁾ In collaboration with the Regional Health Agency.

⁽²⁾ Italian Association of Veterinary Hygienists.

⁽³⁾ Not activated yet.

⁽⁴⁾ Total number of two courses.

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

In the next three AYs, the number of students should remain stable, given that the two Schools of Specialisation, the Ph.D. course, and the annual fellowships funded by the Marche Region have had a rather high number of students enrolled over time. Furthermore, continuing education courses, like SIUMB and SITOV, although active only for about 5 years, have so far had a stable number of students, and will be reactivated in the coming years, depending on the pandemic emergency. The number of students registered in other post-graduate programmes, like specialising master programmes, courses, etc., may vary over the years, also because such programmes are activated according to specific professional or territorial needs, but they are always present in the training offer of the SBVM-bVM.

Description of how the postgraduate clinical training of the Establishment contributes to undergraduate veterinary education, and how potential conflicts, in relation to case management, between postgraduate and undergraduate students are prevented

The overall stability over time of the type and number of postgraduate courses that intersect the DCVM allows postgraduate and undergraduate students to interact in a structured way, thus preventing conflicts in case management between postgraduate and undergraduate students. In fact, during curricular teaching activities, supervised by academic staff, students interact directly with on-duty interns and research fellows, who manage the cases, and consult the academic staff for the unclear cases. Some practical activities are also supported by Ph.D. students, always under the supervision of the academic staff. The students of the School of National Specialisation in AHBZP are not directly involved in practical teaching activities during their shifts (see Substandard 9.2 and Annex 9.2), but they may interact with undergraduate students at the VTH, when students also work their shifts. This interaction is also possible when the second-level Master courses are active, and enrolled veterinarians carry out their practical activities in the presence of undergraduate students. Post-graduate specialising Masters and courses, not specifically reserved for veterinarians, such as MCAAR and RPME, are carried out, in their entirety, on locations different from the SBVM-bVM (most frequently, on the S. Benedetto del Tronto site).

Potential conflicts are also prevented because the clinical activity of the VTH is carried out according to precise procedures. The visit is performed by an intern and student(s), who are in charge of admitting the patients and carrying out the first visit, and any diagnostic investigations (first level). Then they call the tenured doctor of reference, who continues the diagnostic procedure and establishes the therapy, involving both, the student(s) and the intern. If the patient has an appointment with a specific tenured doctor for a specialist visit or procedure, he/she is present from the beginning of the visit. In this case, the medical history and the visit are carried out by the student and the intern, under the supervision of the tenured doctor.

The presence, in a small community, of a large number of post-graduate students and veterinarians, creates the flow of skills, competences, and experiences towards undergraduate students, not only through practical activities, but also through seminars, conferences, and lectures, to which undergraduate students are often invited.

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

The continuing education programmes offered by the SBVM-bVM are planned and carried out in collaboration with different national Veterinary associations, such as the above mentioned SITOV, the SIUMB, the Italian Association of Veterinary Hygienists (Associazione Italiana Veterinari Igienisti - AIVI), etc.; local Institutions, such as the Bank Foundation of Ascoli Piceno; local authorities, such as the Marche Regional Authority and the Regional Health Agency of the Marche Region; and the Italian National Professional Association of Veterinarians. In this way, the connections with professional or territorial needs are established before the activation of each single

course, and experts belonging to associations and local authorities are involved in the lectures or in the entire courses.

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

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

Art. 17, Subsection 3 of the UNICAM University Teaching Regulations (https://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO%20DIDATTICO%20di%20ATENEO_EN2.pdf) states that "... Teaching Regulations of Study Programmes, among other things, also in order to improve the transparency and comparability of the educational offer, determine, together with the Programme Regulations, ... research activities in support of the educational activities that characterise the profile of the Study Programme."

The small size of UNICAM allows a continuous frequent contact of students with research activities. The use of research departments to also carry out practical teaching activities, which sometimes require the student to write a report structured as a scientific publication, may help the students better understand how a research activity is carried out (see Substandard 10.2). The organisation of meetings throughout the training of students promotes research-based education. Moreover, teachers are also encouraged to design practical activities so that students start acquiring some research skills, as well.

b - Description of how (the procedures) and by whom (the committees), research and continuing and postgraduate education programmes organised by the Establishment are decided on, communicated to staff members, students, and stakeholders, implemented, assessed and revised

Research activity is free, and each budgeted academic staff member or group may develop or participate in a research project on a chosen topic, and search for funds through public calls or private funding. The funds are managed by the Head of the research project, through the School. Approved research projects must be communicated to the School Council. Research activities and publications are published on the teachers' website, and are available to any stakeholders. The SBMV also organises meetings open to staff members and students in order to illustrate research activities, both, those in progress, and the prospective ones. The research activities of the SBVM are coordinated by a Research Committee, composed of 5 members, who collaborate with UNICAM. A website is being developed, aimed at enhancing and promoting research activities of the SBVM.

UNICAM has a specific QM for the design and implementation of postgraduate programmes (<https://sgq.unicam.it/intranet/2019/documents/documentazione-relativa-alla-certificazione-iso90012015-dei-master>, in Italian), in particular as regards first- and second-level Masters. The certification procedures started in the AY 2018/19, initially only for a few advanced postgraduate programmes (including the second-level Master in Veterinary Cardiology, certified in November 2020), and is currently being applied to other postgraduate courses. The procedures for the activation of advanced postgraduate training courses, and carrying out the related educational activities, are established by specific Regulations, approved by the US (<http://www.unicam.it/sites/default/files/regolamenti/REGOLAMENTO%20MASTER%20e%20alta%20formazione%20emanato.pdf>, in Italian), and issued by the Rector.

Postgraduate education programmes are annually reviewed, evaluated, and authorised by the School Council and the Master Committee, approved by the US, and then published on the UNICAM website, on the School's website, and through announcements at the university departments. The approval by the School Council and by the Master Committee, for the re-activation of a course,

depends, among other things, on the positive evaluation expressed by the students enrolled in the last edition of the same course.

Continuing education courses, offered by the SBVM, must also be approved by the School Council, and advertised through notices posted at the School's facilities, and online. Some academic staff members are often involved, as teachers, in continuing education courses organised by the Regional Health Authority or by local Professional Veterinary Association.

The needs of the territory and the profession, in terms of activation and re-activation of postgraduate courses and continuing education programmes, are also presented and discussed during the meetings of the Standing Committee for Territorial Development (SCTD) and the Steering Working Group (SWG), where production, veterinary profession, local authorities, and university meet to identify and try to achieve common goals (see Substandard 1.5), including strategic and current research topics.

Comments on Standard 10

The research activity in the SBVM is very varied and covers different fields, as shown in the list of publications (Annex 10.1). Students are involved in research activities during the preparation of their degree thesis, as demonstrated by the high percentage of “experimental” theses (73.5%). Furthermore, activities, such as the “Journal Club”, in which both, students, and teachers/researchers are involved, are periodically organised. The topics of these meetings vary, from the results of a specific research to arguments of interest found in the literature.

Despite the small size of the Establishment and the University, the SBVM-bVM provides an ample number of postgraduate courses focused on some fields of particular interest for the territory and the profession. Furthermore, Schools of National Specialisation, specialising Masters and courses broadly involve experts from other universities, research bodies, and the profession, in teaching activities, in order to offer wider, up-to-date and differentiated competences to the students, which are often linked to the territory and to field activities, thus limiting the involvement of internal staff, as well.

Comments on Standard 10 related to the COVID-19 pandemic

Due to the Covid-19 pandemic, the research activity in UNICAM, and therefore also in the SBVM, has slowed down markedly, especially during the first lockdown (9 March - 18 May 2020). After this period, the research activity restarted, and teachers, researchers, Ph.D. students, research fellows, and students working on their thesis, were able to access the research laboratories, following all the procedures to avoid contagion (<https://www.unicam.it/sites/default/files/documenti-pag/2020/PROTOCOLLO%20SICUREZZA%20ENG.pdf>). Considering the specificity of each research laboratory the maximum number of persons who can simultaneously stay inside the laboratory was defined, in relation to the free surface of the laboratory, the need for movement related to the laboratory work, and the instruments present. The general criterion indicates a distance between workstations of at least 2 meters, and a work-free surface around each person of at least 4 sqm. The person in charge of safety in the workplace must guarantee compliance with all these rules.

In the AY 2019/20, all continuing education courses have not been activated (as shown in Table 10.3.4), while postgraduate programmes (Masters, courses, and Schools of National Specialisation) that had already been activated, have been conducted by distance learning.

Suggestions for improvement as regards Standard 10

The organisation of intramural scientific congresses, addressed to the students, could give further opportunities to the P.hD. students and undergraduate students, to share their experiences and information, and to familiarise with research, as well as to discuss scientific results. Furthermore,

an increase in the Journal Club activities would be desirable, with a broader involvement of the students.

A way to increase the research activities of the SBVM-bVM, as well as the number and the quality of the research products, could be to increase the number of Ph.D. students.

Participation of undergraduate students in lectures given by external teachers of postgraduate courses, on current, or particularly significant, professional issues, should be encouraged.

Implementation of a specific procedure for the verification of the impact of research activities on research-based education, would be desirable. Organising, in all courses, a dedicated lesson and an open discussion with students, could contribute to monitor and improve this aspect.

LIST OF ESEVT INDICATORS

Calculated Indicators from raw data considering 26.5 students graduating annually (see Table 7.2.3)

	Indicators	Establishment values	Median values ⁽¹⁾	Minimal values ⁽²⁾	Balance ⁽³⁾
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.184	0.15	0.13	0.058
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1.173	0.84	0.63	0.543
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0.670	0.88	0.54	0.130
I4	n° of hours of practical (non-clinical) training	698.00	953.50	700.59	- 2.590
I5	n° of hours of clinical training	810.00	941.58	704.80	105.20
I6	n° of hours of FSQ & VPH training	513.00	293.50	191.80	321.20
I7	n° of hours of extra-mural practical training in FSQ & VPH	75.00	75.00	31.80	43.20
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	84.302	62.31	43.58	40.722
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0.434	2.49	0.89	- 0.456
I10	n° of equine patients seen intra-murally / n° of students graduating annually	4.717	4.16	1.53	3.187
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	0.830	3.11	1.16	- 0.330
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	2.302	5.06	0.43	1.872
I13	n° of individual ruminants and pig patients seen extra- murally / n° of students graduating annually	50.566	16.26	8.85	41.716
I14	n° of equine patients seen extra-murally / n° of students graduating annually	2.472	1.80	0.62	1.852
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	4.566	1.29	0.54	4.026
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	1.019	0.11	0.04	0.974
I17	n° of companion animal necropsies / n° of students graduating annually	2.340	2.11	1.40	0.940
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2.453	1.36	0.90	1.553
I19	n° of equine necropsies / n° of students graduating annually	0.226	0.18	0.10	0.126
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	2.849	2.65	0.88	1.969
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.348	0.27	0.06	0.288
I22*	n° of PhD graduating annually / n° of students graduating annually	0.094	0.15	0.07	0.024

⁽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.

GLOSSARY

AD	Academic Discipline (SSD)	DCVMRRC	Degree Course in Veterinary Medicine Review Reporting Committee
AHBZP	School of National Specialisation in Animal Health. Breeding and Zootechnical Productions	DG	Director-General
AIB	Italian Library Association	DHROD	Division for Human Resources. Organisation. and Development
AIFOS	Associazione Italiana Formatori ed Operatori della Sicurezza sul Lavoro - Italian Association for Trainers and Operators in Occupational Safety	DIITSEG	Division for Infrastructures, IT Services. and e-Government
ANMVI	Italian National Association of Veterinarians	DOC	Day One competences
ANVUR	Italian National Agency for Evaluation of University and Research Systems	DPEQS	Division for Programming. Evaluation. and Quality Systems
AP	Associate Professor	DSU	Self-Certification
AR	Assembly of Representatives	EBVS	European Board of Veterinary Specialisations
ARF	Academic Recruitment Field (SC)	ECAW	Ethics Committee for Animal Welfare
AVA	Self-assessment. Periodic Evaluation. and Accreditation	ECTS	European Credit Transfer and Accumulation System
AWB	Animal Welfare Body	EEC	Expert Evaluation Commission
AY	Academic Year	EPT	External Practical training
BCS	Body Condition Score	ERDIS	Regional Agency for the Right to Higher Education
BoD	Board of Directors	ESG	Standards and Guidelines for Quality Assurance in the European Higher Education Area
CT	Computer Tomography	FNOVI	Italian Federation of Professional Veterinary Associations
CUG	Committee for Equal Opportunities. Wellbeing at Work. and Against Discrimination and Mobbing	FP	Full Professor
CYCC	Course Year Coordination Committee	FVE	Federation of Veterinarians of Europe
DC	Degree Course	FY	Financial year
DCBB	Degree Course in Biosciences and Biotechnologies	GARF	Group of Academic Recruitment Fields (MSC)
DCBN	Degree Course in Biology of Nutrition	GARR	Group for Harmonization of Research Networks
DCBS	Degree Course in Biological Sciences	GOF	General Operating Fund
DCC	Degree Course Council	HCFAP	School of National Specialisation in Hygiene and Control of Fishery and Aquaculture Products
DCRRC	Degree Course Review Reporting Committee	HDC	Head of Degree Course
DCSIVAL	Degree Course in Safety of Zootechnical Productions and Promotion of Typical Food of Animal Origin	HRS4R	Human Resources Strategy for Researchers
DCSIVALRRC	Degree Course in Safety of Zootechnical Productions and Promotion of Typical Food of Animal Origin Review Reporting Committee	ICDOP	Inter-university Coordination of Databases and Online Publishing
DCVM	Degree Course in Veterinary Medicine	ICU	Intensive Care Unit
		IDEM	Italian Federation of Universities and Research Institutions for Authentication and Authorization
		INHS	Italian National Health Service
		INIH	Italian National Institute of Health

INPS	Italian National Institute for Social Security		Teaching Evaluation Strategies for Universities
INSQ	Italian National Scientific Qualification	RC	Research Committee
iSAS	International School of Advanced Studies	RF	Research Fellow (Assegnista di ricerca)
ISEE	Equivalent Economic Situation Indicator	RPME	Risk Protection in Marine Environment
ISEE-U	Equivalent Economic Situation Indicator for the University	RTDA	Fixed-term Researcher (junior researcher)
INUC	Italian National University Council	RTDB	Tenure-track Researcher (senior researcher)
LACD	Large Animal Clinical Division	SACD	Small Animal Clinical Division
LHU	Local Health Unit	SB	School Board (Giunta della Scuola)
LS	Library System	SBVAUT	School of Biosciences and Veterinary Medicine self-Funding
MCAAR	Second-level Master in Management of Coastal Areas and Aquatic Resources	SBVM	School of Biosciences and Veterinary Medicine
MD	Medical Director	SBVM-bB	School of Biosciences and Veterinary Medicine - branch of Biosciences
MIUR	Ministry of Education, University, and Research (former name)	SBVM-bVM	School of Biosciences and Veterinary Medicine-branch of Veterinary Medicine
MRI	Magnetic Resonance Imaging	SCC	Student Career Committee
MUR	Ministry of University and Research (current name)	SCTD	Standing Committee for Territorial Development
NEAF	Nutrition, Environment, Agri-Food and Fish Production Operating Unit	SITOV	Italian Society of Traumatology and Veterinary Orthopaedics (Società Italiana di Traumatologia e Ortopedia Veterinaria)
NILDE	Network Inter-Library Document Exchange	SIUMB	Italian Society of Ultrasound in Medicine and Biology (Società Italiana di Ultrasonologia in Medicina e Biologia)
NLS	National Library System	SLB	School Library Board
OECD	Organisation for Economic Co-operation and Development	SLD	Specific Learning Disorders
OFA	Additional training obligation	SPA0	Study Programme Administration Officer
OFF	Ordinary Financing Fund (FFO)	SR	School Regulation
OMIR	Office for Mobility and International Relations	SUA-CdS	Degree Course Annual Factsheet
OPAC	Open-Access Catalogue	SUA-RD	Annual factsheet on Departmental Research
OU	Operating Unit	SWG	Steering Working Group
PBEM	Plant Biodiversity and Ecosystem Management Operating Unit	TAR	Regional Administrative Court
PBFP	Performance-Based Funding Points (Punti organico)	TR	Teaching Regulations
PQE	Professional Qualification Exam	TSJC	Teacher/Student Joint Committee
QA	Quality Assurance	UEU	University Evaluation Unit
QAS	Quality Assurance System	UISS	University Information Services and Systems
QM	Quality Manual	ULS	University Library System
QMS	Quality Management System	UNICAM	University of Camerino
QSB-S	Quality Supervision Board of the School	UNS	UNICAM Statute
QSB-U	Quality Supervision Board of the University		
QUARC	Guidelines for the Professional Development of Teachers, and		

UR	University Researcher (RU)	VTHA	Veterinary Teaching Hospital Assembly
URDIS	Teaching and Research Unit located in San Benedetto del Tronto (province of Ascoli Piceno)	VTHMC	Veterinary Teaching Hospital Management Committee
US	University Senate		
USC	UNICAM Supporters Committee		
UTR	University Teaching Regulations		
VEE	Veterinary Education Establishment		
VM	Veterinary Medicine		
VPH	Veterinary Public Health		
VQR	Research Quality Evaluation		
VTH	Veterinary Teaching Hospital		

ADDENDUM

Influence of the COVID-19 crisis on the VEE and actions taken for each standard

Introduction – Furthermore, on 25 February 2020, teaching activities were discontinued by the Rector due to the COVID-19 emergency. After that, further restrictions were implemented by the Authorities. Since that date, teaching activities (exams, lectures, etc.) were performed as distance-learning, until the end of the semester. During this period all restrictions enforced by the Government made carrying out practical activities impossible both on the SBVM-bVM premises (laboratories, VTH, etc.), and on external locations (farms, producing plants, etc.). As well as the lockdown made the overall activity of VTH, the number of clinical cases, and the amount of practical activities performed by students have fallen dramatically between March and the end of July 2020. Thus, some alternative activities (case studies, simulations, journal clubs, etc.) were arranged to allow students to continue their studies, and to minimise the difficulties, and the delay of their graduation, in particular. Another discontinuation of face-to-face lectures was set for the beginning of November 2020, lasting until the end of January 2021, with the exception of some practical activities within some courses, and reduced shifts at the VTH during the 1st semester.

Standard 1 - During the AY 2019/20, the COVID-19 pandemic has led to a deep change in the University's activities. After the lockdown due to the COVID-19 pandemic in Italy (9 March - 18 May 2020), the essential services that required the unavoidable physical presence at the workplace restarted regularly, following very specific procedures to avoid the contagion. Such activities were the following: those in support of the Rector's Office and the General Management, including those that provide for the dissemination of information and communication; the activities in support of the Division for Infrastructures, IT Services and e-Government; the activities in support of the Macro-sector "Teaching Activities, Internationalisation, and Post-Graduate Activities"; the activities of the Schools, necessary in order to guarantee remote teaching, and all other activities referred to in the provisions and indications of the Rector; the activities in support of the Division for Construction, with reference to the reopening and management of construction sites; the activities in support of the Prevention and Protection Service; animal enclosure and animal care services; maintenance and use of complex instruments; maintenance of teaching, scientific and service facilities, as well as other divisions and offices considered essential in order to guarantee the normal functioning of the services. For all the other activities, the Director General, the School Directors, and the Heads of Offices/Divisions/ Departments, have ensured the continuity of the work activities, implementing, where possible, the smart working model, which is considered one of the measures envisaged for the protection of health of employees, and aimed at containing the risk of contagion. All meetings, at all levels, were held and are still being held (during the second pandemic emergency started in November 2020) almost online. Specifically, with regard to the processes related to the QA of the DCVM, the CYCCs meetings were held regularly online with participation of the teachers and the student representatives. The DCVM Council and the SBVM Council were also held regularly online. However, it was not possible to carry out group tutoring meetings with students, which are an important prerequisite for subsequent CYCCs meetings. Furthermore, UNICAM has provided operational guidelines aimed at increasing the effectiveness of the precautionary containment measures, adopted to counteract the Covid-19 pandemic in the UNICAM workplaces. The security protocol (in English), adopted by UNICAM is available at: <https://www.unicam.it/sites/default/files/documenti-pag/2020/PROTOCOLLO%20SICUREZZA%20ENG.pdf>. In general, all information, as well as the modalities of carrying out the teaching activities during the COVID-19 pandemic, and the relevant legislation, are available at: <https://www.unicam.it/ateneo/coronavirus-unicam-comunica>.

Standard 2 - In relation to the COVID-19 emergency, the MUR has introduced “no-tax area” concessions, through which students, who overall meet certain requirements, are exempt from the payment of the all-inclusive annual tuition fees, except for the payment of the fees for the right to higher education, and the stamp duty.

Standard 3 - According to national laws, face-to-face courses have been replaced with online courses from March to June 2020. Synchronous online lessons have been delivered similarly as face-to-face lessons. Video recordings of lessons can be made available to students on the web platform. When possible, practical work was adapted to be carried out online (e.g. desk- and computer-based work). Some laboratory work, non-clinical animal work, clinical animal work and EPT have been suspended, according to national laws, and rescheduled for after the end of the lockdown. The practical work on animal resources and teaching material of animal origin was carried out according to the guidelines of the Italian Federation of Professional Veterinary Associations (http://www.fnovi.it/sites/default/files/MdS_LINEE_GUIDA_COVID_PET_aprile2020.pdf).

Urgent research activities related to graduation theses have been carried out following appropriate safety protocols. Final examinations and discussions of graduation theses have been carried out online and an additional online final graduation exam session for the AY 2018/19 was added in June 2020 by the Ministry (MUR) to permit students to sit the PQE session in June 2020. All face-to-face services have been replaced with online services (e.g. tutorship and teachers’ consulting hours, administrative and library services, etc.). Students have been invited to participate in life-long learning activities on SARS-CoV-2, organised for postgraduate students enrolled in the School of National Specialisation. The number of ECTS credits needed to be enrolled in the 5th year (see Substandards 3.1 and 7.5) has been decreased from 170 to 162, due to the delay in the conduct of *Tirocinio* in Food Inspection. It must be pointed out that also for the AY 2019/20 an additional final graduation exam session was added in June 2021 by the MUR.

Standard 4 - During the pandemic emergency period, the facilities of the School were accessible only to selected staff members, included in a duty rotation plan, on the basis of their competencies. However, the 24h/365d service has always been maintained active, in order to ensure essential healthcare services for the territory, and to guarantee veterinary assistance.

Students were not allowed to attend the VTH from the beginning of the pandemic until 27 July 2020. Starting from that date, the students were able to participate, on a voluntary basis, and only during the day, in practical clinical activities of the VTH, from Monday to Friday, in limited numbers (2 students in each shift), and with shifts aimed at limiting the possibility of overcrowding.

Activities of the hospital were ensured by the participation of interns, in shifts, assisted by the Heads of Operating Units and by other tenured staff members, both by direct presence, and by means of online/phone communications.

The restart of face-to-face lectures in October 2020 has been arranged according to general safety rules laid down by UNICAM (following those issued by the Italian Government) in order to guarantee distancing and hygiene measures. Besides the respect of such general safety rules and making available disinfection gel and an App (YoUnicam, for Android and iOS) to avoid crowding outside lecture halls and assign a specific seat to each student during lectures (<https://www.unicam.it/studente/younicam-app>), in all spaces (lecture halls, library, study room, etc.) proper stickers have been placed to show the seats available for students according to the general rule of not exceeding the 50% of seats available in normal conditions. Moreover, proper routes have been also created (where possible) to avoid crossing during student movements.

Finally, to create more spaces for classes with a greater number of students the Municipality of Matelica arranged a temporary additional fully equipped lecture hall (named Lecture Hall Z) located in the old building of primary school with more than 50 seats (according to the distancing rules), to host the lectures of the 3rd year of the DCVM which will be operating until the end of the AY2020/21 at least.

Standard 5 - During the first COVID-19 emergency (March-May 2020), the face-to-face lessons have been replaced with on-line lessons. In this situation, practical activities have been replaced with computer-based work, where possible. In other cases, including practical activities or EPT, activities have been postponed for after the end of the lockdown, according to national laws. All face-to-face services have been replaced with online services.

The health emergency led the SBVM-bVM to review the number of students included in each group for all the practical activities that took place in the School, reducing each group to a maximum of 4 students, also depending on the surface area and the possibility of ventilation of each room or laboratory. Specific rules have been established by the UNICAM Rector. Consequently, each teacher had to repeat the same practical activity more times than usual, with consequent overwork.

The extramural activities and the number of clinical cases seen intramurally and extramurally were reduced, because of the compulsory lockdown. However, clinical activities at the VTH were never discontinued during the lockdown, and all information about the clinical cases seen, including all diagnostic images recorded, are accessible to students for the consultation. Furthermore, after the first lockdown, environmental microphones and webcams have been bought in order to demonstrate the clinical cases to students who could not frequent the VTH.

Standard 6 - Since the beginning of March 2020, access to the Library was prohibited to students and other users, except for the staff members, in case of need. At the beginning of June 2020 (after the end of the first lockdown), the access resumed, according to specific procedures: the admission (following specific routes) was permitted only wearing a face mask and upon hand disinfection; disinfection of tables was performed after each use; the opening time was 8:00 a.m.-6:00 p.m., from Monday to Friday, arranged into four rounds of two hours each; physical access to the Library (for loan, study, and consultation) was reduced to 9 total seats upon reservation (by e-mail). Thus, during the lockdown, most of the Library activity for both, staff and students, was performed by remote access, even though the Librarian was always present in person in her office. During the second emergency, which started at the beginning of November 2020, with the resuming of distance learning, the access to the Library and study room was however guaranteed to students according to the procedures above described. The total number of seats available to students at the same time was increased to 26 in the archive/consultation area, and the seats available in the study room, reopened at the end of October 2020, was reduced from 12 to 7.

Standard 7 - Since the beginning of March 2020, UNICAM decided to carry out all teaching activities via web, using the Webex platform (Cisco Systems). The students were able to connect to the virtual room of the teacher, after having downloaded the app Cisco WebEx Meeting, and consulted the list of the virtual rooms (<https://www.unicam.it/didatticaduepuntozero/>). In this way, the 2nd semester of the AY 2019/20 has been rearranged, starting on 16 March 2020, with a new official schedule. Alternative activities (case-studies, problem-solving, research in small groups) replaced the large part of practical activities of the courses. Practical activities during the *Tirocinio* programme, performed on private farms or food producing plants under agreement with UNICAM, have been suspended.

In relation to orientation activities, in May 2020 videoconferences were performed, organising “Open Doors ON LINE” events, using Cisco WebEx platform, in the virtual room of the Rector (for the first, introductory part), and then in that of the Proxy of the SBVM-bVM.

The final exams and the discussions of graduation thesis have been performed *via web*, respecting the dates fixed in advance. In addition, as already reported (see Comments on Standard 3 related to the COVID-19 pandemic), another date for the thesis dissertation has been scheduled on 10 June 2020 by the MUR. This also contributed to the high number of graduates in the AY 2019/20, compared to other AYs, as reported in Table 7.2.3. Furthermore, in order to improve the students’ career, the number of ECTS credits to be acquired for the enrolment in the 5th year has been reduced from 170 to 162 credits.

The admission test for the AY 2020/21 was performed on 1 September for all the candidates coming from the Marche Region, based on the guidelines of the MUR. In order to guarantee the respect of the anti-COVID-19 procedures, the admission test has been carried out at the sports hall of UNICAM, located in Le Calvie.

For the AY 2020/21, the face-to-face teaching activities started with consequent rearrangement of the spaces. In order to book their site in the classroom, the app YoUnicam (for both Android and iOS) has been created for all the students.

After the significant reduction of the student presence due to the lockdown, the manager of the cafeteria did not reopen and closed her activity. Now, this area is available again, and UNICAM is looking for another manager.

Standard 8 - During the second semester of the AY 2019/20, since the beginning of March 2020, also exam sessions have been performed online, using the Cisco-Webex platform, where in the virtual room assigned to each teacher all exams have been held, respecting the calendar previously published. Meanwhile, all the Rector's decisions related to the pandemic emergency have been published on a specific website (<https://www.unicam.it/ateneo/coronavirus-unicam-comunica>). It must be pointed out that the Webex platform was already used by the UNICAM for online teaching activities (not for the DCVM, always held face-to-face) after the earthquakes in 2016 and 2017.

During this semester, teachers have continued to gather the CYCCs online, on the Webex platform, paying attention to the opinion of students about the conduct of the exams.

Since May 2020, UNICAM and the SBVM staff members have started to apply the security procedures against the Covid-19, by re-arranging the spaces and the capacity of classrooms, offices and other spaces, setting the maximum number of persons for each space. Hand sanitiser dispensers have been installed close to each classroom entrance. During the summer 2020, signpostings have been placed on the floor and on desks aimed at showing the place for each student and the path to be followed for entering and leaving the spaces. The app YoUnicam was also developed and made available to students in order to assign a specific seat to each student (see Comment on Standard 4 related to the COVID-19 pandemic).

Standard 9 - The pandemic emergency of 2020 (AY 2019/2020) did not have any consequences on the issues described in the present Standard. Not even the results of student questionnaires were much affected by the challenges posed by the pandemic, given that the students perceived the efforts made by the staff to offer, as much as possible, quality remote teaching and alternative activities during the lockdown.

Standard 10 - Due to the Covid-19 pandemic, the research activity in UNICAM, and therefore also in the SBVM, has slowed down markedly, especially during the first lockdown (9 March - 18 May 2020). After this period, the research activity restarted, and teachers, researchers, Ph.D. students, research fellows, and students working on their thesis, were able to access the research laboratories, following all the procedures to avoid contagion (<https://www.unicam.it/sites/default/files/documenti-pag/2020/PROTOCOLLO%20SICUREZZA%20ENG.pdf>). Considering the specificity of each research laboratory the maximum number of persons who can simultaneously stay inside the laboratory was defined, in relation to the free surface of the laboratory, the need for movement related to the laboratory work, and the instruments present. The general criterion indicates a distance between workstations of at least 2 meters, and a work-free surface around each person of at least 4 sqm. The person in charge of safety in the workplace must guarantee compliance with all these rules. In the AY 2019/20, all continuing education courses have not been activated (as shown in Table 10.3.4), while postgraduate programmes (Masters, courses, and Schools of National Specialisation) that had already been activated, have been conducted by distance learning.

