



FACULTAD DE VETERINARIA

Self Evaluation Report

EAEVE Visitation Madrid 2024

For EAEVE re-accreditation







Acknowledgements

These acknowledgements must begin by mentioning all those students, teachers, support staff, services and management and ultimately, all those people who bestow this Degree with its characteristic constant aim for excellence.

This Self-Assessment Report is the culmination of the collective effort made by all the members of the Veterinary Complex of the Complutense University of Madrid. It has been meticulously drafted in accordance with the Leipzig 2023 guidelines for the ESEVT SOP.

We extend our heartfelt gratitude to all the collaborators who generously shared their time providing objective data and pertinent information. The draft was shared with our academic community, including members of the Veterinary Degree Assessment and Improvement Committee, the Quality Assurance Commission, and the Faculty Council, to embrace their comments and amendments. Their contributions have resulted invaluable in refining and enhancing this document.

A special acknowledgement is due to the efforts and cooperation of the Government Team of the Complutense University of Madrid in the preparation of this report and the organisation of related activities.

We trust that this self-assessment report has accurately reflected the quality and dedication inherent to our Veterinary Degree, and that it will serve as a clear guide for the forthcoming evaluation process.

Dean. Consuelo Serres Dalmau Liaison Officer. Manuela Fernández Álvarez



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Introduction





Brief history of the Establishment and of its previous ESEVT Visitations

The Veterinary Faculty of Madrid (FVM) maintains its status as a public administrative body dependent on the Complutense University of Madrid (UCM). <u>Veterinary Studies in Spain</u> were made official through the foundation of the Royal Veterinary School established in Madrid in 1793 and granted Status of Higher Education in 1923. The school was integrated into the UCM in 1943 to become the Veterinary Faculty. In 1968, the FVM moved to its present location on the University Campus. The FVM has been evaluated on several occasions by the European System of Evaluation of Veterinary Training (ESEVT) and approved by the European Association of Establishments for Veterinary Education (EAEVE). The first positive evaluation was granted in 1998, followed by subsequent re-evaluations and approvals in 2006 and 2017, in accordance with the ESEVT, based on Directive 2005/36/EC as amended by Directive 2013/55/EU. These assessments grant the FVM of the UCM the status of "Accredited". Since the Re-Visitation in September 2017, the FVM has not experienced any major modifications that would impact the compliance with ESEVT Standards.

Main features of the FVM

The FVM is one of 26 centres that constitute the UCM. The faculty offers the higher degrees of Veterinary Medicine and FST, and provides three official Master programmes: Virology; Animal Production and Health (coordinated with the Polytechnical University of Madrid); and Research, Development, and Innovation in the Food Industry, alongside multiple Non-official Postgraduate Programmes and other potential future offerings.

At the FVM, research and transfer of technology are central to the commitment of academic excellence and innovation. Our faculty is distinguished for its dynamic research activity, and contributes substantially to the global scientific community, engaging in numerous research projects at national and international levels, being amongst the top three in resource acquisition at the UCM, a testament to its leadership in the field. The FVM is included in the top 50 best faculties in the world according to the QS ranking, specifically <u>35th in QS ranking (2023)</u>, and 17th position in the world according to the <u>Shanghai ranking (2023)</u>.

In our veterinary complex are three administratively independent entities: the FVM, the UCM Veterinary Teaching Hospital (VTH), and the Veterinary Health Surveillance Centre (VISAVET). United by a shared vision and mission, they focus on education, clinical practice, research, and the transfer of knowledge. Additionally, the FVM houses the Teaching Farm (TF), the Pilot Plant for Hygiene, Food Technology, and Safety (PP), and the UCM Veterinary Museum. The FVM belongs to the Moncloa Campus of International Excellence, founded in 2010 by the UCM and the Polytechnical University of Madrid, together with the Spanish National Research Council (CSIC) and the National Institute for Agri-Food Research (INIA). The FVM is an integral part of the thematic cluster "Agri-Food Industry and Health." The primary aim is to transform the Moncloa Campus into an international benchmark for research, education, and innovation in alignment with the One Health concept.

The presence of highly motivated staff members and students is one of the significant strengths of our establishment. Education is fostered by the good relationship between students, academic, and support staff.

Main developments since the last visitation

Since the last visitation, our faculty has undergone a shift in leadership, marked by the election of a new Dean in 2019 and her subsequent re-election in 2023. This change led to a comprehensive reorganisation of the dean's office. Since January 2022, the deanship team has remained stable, facilitating a focused approach on enhancing the efficiency of the faculty's administration. This realignment ensures that each area aligns more closely with the strategic objectives and educational mission, reinforcing the commitment to continuous improvement and excellence in higher education.





The COVID-19 pandemic had a profound impact in Spain, significantly affecting university education. Restrictions imposed to control the virus's spread forced universities to swiftly adapt to virtual teaching methods, posing a particular challenge for practical and clinical training, essential for veterinary education. This led to a re-evaluation and restructuring of teaching methods, accelerating the integration of digital technologies and virtual simulations. Despite the challenges, the COVID-19 crisis also spurred innovations in education, promoting greater flexibility and resilience among students and teachers. The pandemic highlighted the vital importance of the veterinary profession in public health and food safety, reaffirming its essential role in society during times of crisis. The FVM actively participated in the donation of sanitary material and equipment, in the setting up of a network of COVID-19 diagnostic laboratories, and numerous research projects on SARS-CoV-2.

The funds allocated by Europe to repair the damage caused by the COVID-19 crisis were managed in Spain through a Recovery, Transformation, and Resilience Plan. Through this, the UCM made significant investments in technification, digitalization, and innovation in teaching and in educational, clinical, and research infrastructures. In our faculty, the computer classrooms and the library were modernised, with the renewal of audiovisual media (projectors, cameras, screens, computers, etc.), and investments were made in new clinical simulators. This enabled or improved student access to these technologies and their applications. The FVM has embarked on another series of significant upgrades to its facilities, biosecurity and equipment with the financial support from the UCM Rectorate. A notable addition is a new 3D printer, included as part of the UCM Research Assistance Centre. A significant asset for the near future will be the construction of a Biosafety Level 2 (BSL-2) laboratory. Further improvements include the acquisition of a Computed Tomography (CT) scanner, remodelling of the anatomy room and pilot plant, and renovation of various laboratories and teaching spaces. Improvements centred on student welfare have been made, adapting spaces for study and rest. The FVM's commitment with sustainability and accessibility is conveyed by the renewal of air conditioning systems, installation of LED lighting and fire safety measures, adaptation of all accesses for the mobility impaired, and increment of recycling facilities.

Since the 2017 re-visitation, no major or regulatory changes that could undermine ESEVT standards have occurred. The staff has consistently worked on implementing corrective actions to enhance our Establishment and maintain strengths, as noted in the visitation report. Key improvements were implemented for the major deficiency "inadequate hands-on clinical training". After receiving the first visit report, our QAS approved and implemented an extensive program of clinical training, spanning various clinical subjects throughout four years of the Degree, to enhance student experience and expertise. The FVM has also received financial support from the UCM Rectorate to address minor deficiencies, which led to substantial improvements in biosecurity, equipment, emergency clinical staff and increased funding for animal care, which ensured a comprehensive and well-resourced educational environment. Efforts to balance theoretical, practical, and clinical training in the curriculum have been fortified through regular interdisciplinary meetings and the introduction of surveys aimed to assess the curriculum's strengths and weaknesses. Despite the limited autonomy over student admissions, enrolment numbers have been kept in line with the available resources. The establishment's commitment to continuous improvement and adherence to ESEVT standards is clear, maintaining ongoing adaptations to meet educational and infrastructural needs, such as a modernised TF, improved biosecurity protocols, and enhanced clinical facilities. New agreements for the acquisition of more practical training materials are continuously in motion, as an example, the cadaver donation program.

Significant improvements in teaching staff have been implemented over the past four years by means of the university's "Reinforcement of Dept" programme and the "Strategic Enhancement" programme embedded into the <u>Academic Staff Action Plan 2020-2023 (UCM)</u>. These programmes have resulted in the incorporation of a considerable number of teachers with clinical and research profiles into our staff.





Major Problems Encountered by the Establishment

One of the major problems is the needed renovation of our ageing facilities, often delayed by the considerable investment required. The most imminent project in this regard is the refurbishment of our Animal Health building, scheduled to commence shortly. This renovation poses a substantial challenge in effectively managing staff coordination and the allocation of space throughout the construction phase.

There is a notable discrepancy with the European context with regards to the curriculum. While veterinary studies in many European countries encompass between 330 and 360 ECTS, in Spainhe standard remains at 300 ECTS. The FVM adheres to European Standards in its teaching, despite the significant challenge posed by the current duration of the Veterinary Degree. To align the curriculum with these standards, considerable effort is devoted to meticulous scheduling of the necessary practical hours. Annually, all subject contents are thoroughly reviewed to ensure compliance with the required competencies, demanding high attendance per ECTS for both students and faculty. This discrepancy forces a higher density of practical and theoretical training per ECTS credit. We continuously strive to improve and adapt the Study Plan, ensuring that our subjects are offered in the most appropriate semesters, taking into account their specific requirements and prerequisites. Consequently, we continue to support and will lead the proposal from the Conference of Deans of Veterinary Faculties (CDV) to increase the curricular structure by 60 ECTS and extend it to 6 years.

We anticipate economic hardships due to ongoing military conflicts and rising commodity and energy costs. The confluence of these external factors poses significant challenges to the financial management and operational efficiency of our institution and requires strategic foresight and prudent allocation of resources in order to maintain our high-quality standards.

The SER was drafted in accordance with the EAEVE General Assembly-approved SOP (ESEVT 'Leipzig' SOP June 2023)





Objectives, Organisation and Quality Assurance Policy





Standard 1.1: Main objective

The FVM is dedicated to offering superior, public, and modern education, adhering to high quality standards, aligned with the general objectives of the University and the guidelines set by the FVM QA System (QAS), as well as national and international accreditation agencies for academic programmes. Our mission is founded on three core pillars: quality education, cutting-edge research, and societal commitment. In education, we aim to provide exceptional higher education that prepares our students to be highly skilled and ethical professionals, fostering critical thinking, technological innovation, and ethical practice across all disciplines. Research is integral to our identity, as we strive to advance knowledge in Veterinary Sciences and Food Science and Technology (FST), encompassing animal health, public health, food safety and quality (FSQ), sustainability, and environmental conservation, thereby contributing to solutions on global challenges. We are committed to transferring this knowledge to society. Moreover, our faculty offers high quality clinical and diagnostic services, benefiting both the community and our students, enriching their education. Overall, our mission is to cultivate well-rounded professionals, advance in research, and contribute to society and animal welfare.

The vision of the FVM is to be an international benchmark in veterinary education and research, as well as in the agricultural-livestock sector, food technology, and industry. We strive to be leaders in promoting the One Health concept, that respects the interconnectedness of humans, animals, and our environment. We intend to inspire and lead change, forging a healthier and more equitable future.

Our values

Academic and Professional Excellence: We maintain a steadfast commitment to our students and society to achieve the highest standards in our teaching, research, clinical practice, technology, and food safety, ensuring comprehensive and quality education.

Ethics and Animal Welfare: Animal welfare and professional ethics are fundamental pillars in all our activities, deeply ingrained in our students, and formally trained staff, reflecting our respect and care for animals.

Participation and Community: We greatly value teamwork, collaboration, and active participation, fostering strong and constructive relationships among students, faculty, and industry professionals in both veterinary and agri-food sectors.

Innovation and Adaptability: We promote an environment that prepares our students for changes and advancements in various fields, including veterinary medicine, FSQ, sustainability, and environmental conservation.

Commitment to Society: We strive to actively contribute to societal well-being, advancing public health and zoonotic disease prevention, ensuring quality in the food chain, and addressing societal needs and expectations.

Collaboration and Support Network: We strengthen collaboration with our surroundings and other centres and institutions nationally and internationally, public and private, seeking synergies and mutual learning.

Alignment with UCM's Institutional Values: We fully identify with the institutional values, including human rights, diversity, true equality of opportunities and rights, inclusion, sustainability, and the well-being of its staff and students.

Integrity and Responsibility: We are guided by integrity, responsibility, ethical conduct, and transparency in all actions, establishing a model in the academic and professional field.

Alignment with the strategy of the Sustainable Development Goals 2030. Training in environmental values as a core part of our students' education as citizens.

The objective of the Veterinary Degree is to provide comprehensive training for graduates in order to enable practice in any aspect of the veterinary profession, in accordance with the legislation that governs the Degree. The Veterinary Degree is regulated by corresponding community directives (78/1026/EEC and 78/1027/EEC, amended by 36/2005/EC), that define the elementary contents of the Degree, validation of qualifications and the free movement of veterinary professionals. These







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elementary training requirements were modified by the November 20, 2013, Directive 2013/55/EU of the European Parliament and Council. The November 8th Royal Decree (RD) 1837/2008, integrates the recognition of professional qualifications into the Spanish legal system, through the transposition of the European Directive, published in the Official State Bulletin (BOE).

The current curriculum leading to the Veterinary Degree at the UCM was implemented in the 2010-11 academic year and the first class graduated in 2014-15. The Degree has been accredited by Madri+d Foundation in 2016-17 and 2022-23, and mentioned before, by the EAEVE on three occasions. The curriculum is supported by the European Spanish legislation and the recommendations of the EAEVE. To ensure our quality teaching and aim for academic excellence, the faculty has continued to expand its facilities, adding new classrooms, the TF, the PP, the Veterinary Museum, and the VTH, inaugurated in 1998. In 2008, the VISAVET centre was opened. It provides all the necessary infrastructures for comprehensive training: a library, auditorium, various types of classrooms, laboratories, and services including Wi-Fi and a cafeteria-dining hall. The clinical assistance is highly recognised by the public and the veterinary professionals, which provides a steady and broad caseload, needed for the hands-on practical and clinical training of the students. It is supported in a fluent relationship with the Official College of Veterinarians of Madrid (COLVEMA) and with Private Professional Associations and Public Entities. A representative of the FVM participates in the Governing Board of COLVEMA, and a Professional Orientation Office attended by COLVEMA is placed in FVM to advise students on their future employment.

Commitment to ethics and social responsibility is also a fundamental pillar of our research activities, as demonstrated by the work of the <u>Establishment Ethics and Animal Welfare Committee (EAWC)</u>, which ensures that all our research and practical sessions with animals complies with the highest ethical standards, guaranteeing animal welfare and respect for life in all our initiatives.

The FVM plays a vital role in the training of highly qualified professionals and the promotion of scientific research. Its commitment to academic excellence and advancement in the field of veterinary medicine and food technology makes it a national and international leading institution.

Standard 1.2: Establishment integration

The FVM is a Public University dependent on the Spanish Ministry of Science, Innovation and Universities, and on the Government of the Autonomous Community of Madrid (CM). The current law (Organic Law University System [LOSU]), establishes that the Universities may be structured, as determined by their Statutes, into campuses, faculties, schools, departments, university research institutes, doctoral schools, or other centres or structures necessary for the development of their inherent functions. UCM is Spain's largest on-site university, for the academic year 2023-24, offers 94 undergraduate degrees, 165 master programmes, 300 proprietary titles, 57 PhD programmes, and 190 continuing education courses. As a public university, UCM is committed to providing comprehensive, high level critical education. It maintains cooperative agreements with 340 universities worldwide and 934 institutions in 77 countries, facilitating student, and staff exchanges. It is located in two prime areas in Madrid and Pozuelo de Alarcón, surrounded by 1,300,000m² of green spaces. The university features over 250,000m² of sports facilities, where students can engage in up to 21 different sports. It possesses significant historical heritage and offers an extensive cultural program encompassing art, literature, music, theatre, museums, and festivals. Home to the country's largest library, second only to the National Library, UCM's library holds over 3,000,000 volumes and a historical collection exceeding 232,000 items. It provides nearly 11,000 reading spaces scattered across 32 libraries. The UCM offers numerous services such as a Job and Internship Office, a Gender Equality Unit; a Diversity and Inclusion Support Unit, the UCM College at Harvard, a Doctoral School, an Advanced Language Centre, the Student House, a Cooperation and Development Unit, the Office for Welcoming Refugees, Summer Courses, the UCM Summer School, University for Older Adults, and the UCM Latin





American School, among others. It also has five Residential Colleges with over 800 places. All activities at UCM are centred around the goals of academic and research excellence and the principles of democracy, transparency, sustainability and commitment to the social and economic environment. Detailed information can be found on the UCM <u>website</u>.

1.2.1 Details of the VEE

- Name: Veterinary Faculty (UCM)
- Address: Avda. Puerta de Hierro s/n, Ciudad Universitaria. 28040 Madrid
- **E-mail**: decanato@vet.ucm.es
- **Phone number**: 91 394 3884
- Website: https://veterinaria.ucm.es/
- University: Complutense University of Madrid
- Address of the university: UCM. Avenida de Séneca, 2. (28040) Madrid
- **Competent authority overseeing the establishment:** Ministry of Science, Innovation and Universities, and Dept of Education, Universities and Science of the CM
- Head of the establishment: Consuelo Serres Dalmau, DVM, PhD (Dean)
- Head of the VTH (professional, ethical): M^a Dolores Pérez Alenza, DVM, PhD
- Head of the UCM University of Madrid: Joaquín Goyache Goñi (Rector) DVM, PhD

1.2.2 Organisational chart of the VEE with a brief description of the decision-making process

The governing bodies are the Dean, the Dean's Office and the Faculty Council (UCM Statutes). The Dean represents the Faculty and acts as Director and day-to-day Manager. The Dean is elected by the Faculty Council from the tenured academic staff of the Faculty for six-year terms, no re-election is possible (LOSU 2023). The Dean's Office includes: five Vice-Deans with delegated functions related to specific academic activity areas, the Academic Secretary, who acts as notary for the acts or agreements of the collegiate bodies, and the Manager responsible for the faculty's administrative and financial services. Vice-Deans and Academic Secretary are nominated by the Dean for her term. The official appointment is made by the Rector. There are also four Dean-Delegates. The Dean manages the main academic areas and ensures the interconnection between study programs and research in close collaboration with the Faculty Management and by delegating responsibility to the Vice-Deans and the Heads of the Departments (Dept) and Departmental sections (DS) of the different areas.

The Faculty Manager acts as manager for the support staff and is responsible for the Financial Affairs Section, Students' Secretary, Personnel Section, Library, Computer Services and General Services.

Dean´s Team	Name
Dean	Consuelo Serres Dalmau
Academic Secretary	José Antonio Ruiz Santa Quiteria
Vice-Dean for Communications, Networks and Teaching Innovation	Mª Ángeles Jiménez Martínez
Vice-Dean for Postgraduate Studies, Academic Organisation and Institutional	Manuela Fernández Álvarez
Relations	
Vice-Dean for Quality Assur	Amalia Diez Martín
Vice-Dean for Research, Transfer and Library	María Arias Álvarez
Vice-Dean for Students and Professional Guidance	Paloma Forés Jackson
Delegate for the Coordination of the Degree in Veterinary Science	Ignacio De Gaspar Simón
Delegate for External Internships, Rotation and Final Degree Project (GTh)	Elena Martínez de Merlo
Delegate for the Coordination of the Degree in FST	Raquel Pérez Sen
Delegate for Guidance and Outreach in FST	Isabel Cambero Rodríguez





1.2.3 List of Depts/units/clinics

Depts and DS: The Depts are the bodies in charge of the coordination of the teaching of one or more knowledge areas in accordance with the teaching program of the University, as well as of the support for academic and research activities, and initiatives brought by the teaching staff. The different Depts encompass areas of scientific or technical knowledge. In situations where Depts have a significant presence in more than one faculty, DS are established in each of the faculties to facilitate management. The FVM is composed of three Depts and six DS that oversee all the materia pertaining to the curriculum.

The Dept Council, chaired by the Head of the Dept, is the governing body of the Dept, and is composed of the entirety of the academic staff (PhD), and a representation of the rest of the teaching and research staff (70%); the students who are taking courses within the Dept (25%), and the support staff assigned to the Dept (5%). The Head of the Dept acts as representative and develops the functions of director and manager.

<u>Veterinary Teaching Hospital</u> (VTH): The VTH carries out appropriate clinical and support tasks for teaching and research, in line with the current legislation. The organisational and functional regime of the VTH is governed by its own <u>VTH Regulations</u>. The Hospital Council is chaired by the VTH Director and consists of:

- 1. *Ex officio* members: the Dean of the FVM, the VTH Director, the Head of the Dept of Medicine and Animal Surgery*, the Head of the Dept of Animal Health*, the VTH Secretary, the VTH Manager, the 3 Coordinators of the Small Animal, Large Animal and Central Services Areas, and the 14 Heads of the VTH Services (see Area 4, section 4.3.4).
- 2. Elected Members: 2 representatives of the VTH support staff, one among the official staff and another from the workforce, 2 students, 2 hospital training staff representatives (interns or residents), one for each clinical area.

Teaching Farm (**TF**): The educational and research management of the TF is overseen by the Management Council. The Farm Council is chaired by the Dean and is constituted by the Vice-Dean(s) with responsibilities in Research/Coordination, the Director of the Farm, appointed by the Faculty Council upon the recommendation of the Dept of Animal Production, the Directors of the Depts of Animal Medicine and Surgery, Animal Production, and Animal Health, the Manager, Heads of each Active Operational Group/Unit, with the member of the lowest rank and seniority serving as Secretary of the Management Council, and a Biosecurity and Health Programs Officer.

Pilot Plant for Hygiene, Food Technology, and Safety (**PP**): The management of the PP is overseen by the PP's Operation Commission (OP), which is constituted by two members from each of the work lines and a representative from the support staff assigned to the PP. The OP will elect, from among its members, a faculty member as the Director of the PP and a Secretary. These positions will be chosen alternately and rotationally. The OP will meet ordinarily every four months and extraordinarily at the proposal of its Director or three of its members. The members of the OP will be appointed for renewable two-year terms. The Dean upon the proposal of the OP, will appoint the Director of the PP for a two-year term, with the possibility of one consecutive reappointment.

Other facilities to support teaching and research:

- <u>VISAVET</u>
- <u>Veterinary Museum</u>





1.2.4 List of the councils/boards/committees

The <u>Faculty Council</u>, is the management and governing body of the Centre. It is composed of members representing all levels of the Institution. It is chaired by the Dean and renewed every four years.

The native members are the Dean's Office, the Heads of the different Dep. and DS and the Director of the Library; the elected members include representatives of the tenured academic staff (58% of the Council), representatives of hired teaching, research staff and research scholars (12%), representatives of the support staff (5%) and student representatives (25%). There are several <u>Committees</u> that advise the Dean and the Faculty Council, but lack decision-making functions (except the <u>Permanent Committee</u>). Important issues cannot be put forward to the Faculty Council meeting agenda unless they are previously prepared and discussed by the appropriate committee. Representation of all the Faculty collectives in the different Committees is guaranteed.

<u>Permanent Committee of the Faculty Council</u>: Deals with day-to-day matters in the name of the Faculty Council.

<u>Research Committee</u>: Among its competences is the drawing up of scales and evaluation of candidates for the different research positions offered by the UCM as well as the evaluation of the scientific output of the different research groups of the Centre to distribute the financial assistance for research assigned by the UCM.

<u>Mobility Committee</u>: Supports the mobility of the FVM members, especially the incoming and outgoing students. The Committee establishes the subject equivalences and credit transfers for those students who study abroad with Erasmus scholarships.

<u>Committee for Transfer and Credit Recognition</u>: Establishes the criteria and tables for credit recognition and transfer for those students who change their syllabus.

Postgraduate Committee: Manages all the issues related to postgraduate studies.

<u>Financial Committee</u>: Distributes the budget and any other funding of the Establishment and draws up the criteria needed to carry out this distribution.

Library Committee: Manages the Library resources. Its duties also include recommendations for the acquisition of books, journals and different scientific, technical and teaching media.

Biosecurity Committee: Defines action regarding Self-Protection Plan, to publish the Risk Plan Associated with Teaching, and to evaluate, to implement and to publish the protocols for the VTH, the PP and the TF. *EAWC*: Evaluates, advises and approves procedures to ensure the welfare of animals used for educational and research activities.

<u>Quality Commission of the FVM</u> and <u>Committee for Assessment and Improvement of the Veterinary Degree</u> <u>Curriculum</u> (CEMGV): Information is fully detailed in Standard 1.4 and 1.6 and in Appendix 4. Input from external stakeholders is guaranteed through their participation.

1.2.5 Description of the formal collaborations with other VEEs

The collaboration of our faculty with other VEEs can be articulated in terms of institutional cooperation, mobility, and other specific activities. Institutionally, our engagement is highlighted by our active participation in the CDV, which convenes at least biannually. Currently, the Dean of FVM presides over this conference. In terms of regional relationships, the FVM represents Region 2 in the Executive Committee of the EAEVE. <u>Mobility cooperation</u> is the most extensive aspect of our collaboration with other VEEs, including partnerships with institutions in Spain, Europe, EEUU and Latin America. These collaborations are facilitated through various student and staff exchange programs such as SICUE (Exchange System between University Centers in Spain), Erasmus+, and Latin America. These mobility programs are founded on educational agreements that ensure recognition of courses undertaken by students abroad, which are then incorporated into their academic records upon successful completion and return. Research and cooperation or other related matters are engaged through <u>specific frameworks and agreements</u>.





Title and name of responsible for curriculum and academic affairs in VTH: Consuelo Serres Dalmau, DVM, PhD (Dean)

Title and name of responsible for professional and ethical in VTH: M^a Dolores Pérez Alenza, DVM, PhD

Standard 1.3: Strategic plan

The Strategic Action Plan of the FVM is based on previous initiatives and strategies of the former government team, including the FVM's Dean's Office programs of 2011 and 2015, as well as the Strategic Plan for 2017-2020. The 2020-2023 period was marked by a significant change in the deanship and the unprecedented global challenge of the COVID-19 pandemic. During this time, the faculty adopted the strategic lines of the electoral program of the newly elected Dean in 2019 to focus on overcoming the challenges imposed by the pandemic. This period was characterised by remarkable adaptation and resilience, ensuring the continuity and quality of our education and services despite the difficulties. With the pandemic under control and having returned to a new normality, coupled with the revalidation of the Dean's position in the 2023 elections, we find ourselves at an optimal point to develop a new strategic plan that aims to consolidate and expand recent achievements, adapting to the challenges and opportunities of the current educational, economic and social environment. The FVM strategic plan draws its most significant references from the vision, mission, and values of both the university and our faculty. It is guided by the Sustainable Development Goals and adheres to the criteria and guidelines for QA in the European Higher Education Area (EHEA), as well as the university regulations governing our studies. Consequently, this plan aims to consolidate and expand upon recent achievements, adapting to the challenges and opportunities presented by the current educational, economic, and social landscape.

1.3.1 SWOT Analysis

Strengths	
Long historical tradition and nationally and internationally recognised prestige of the degrees it offers	
Privileged geographic location with excellent transport infrastructure	
Accredited Undergraduate, Master, and PhD degrees that rank high in national and international rankings	
High demand for its degrees compared to other universities	
High degree of motivation and involvement of faculty, administrative and service staff, and students	
Transparent organisational structure that ensures the participation of all groups in the established procedures for the development of the Degrees	
Existence of a fully implemented and operational QAS that allows for the systematic monitoring and evaluation of the quality objectives of the degrees, analysis of outcomes, and adoption of continuous improvement plans	
The QAS structure ensures the participation of all groups in the established procedures with information and transmission mechanisms to both internal and external stakeholders	
The coordination of teaching across all degrees is well established, effective, and dynamic, proving to be fundamental for the development of quality education	
Increasing integration between the two undergraduate degrees offered at the Veterinary Faculty	
Excellent student-to-teacher ratio and a high degree of synergy among all levels of the faculty	
A multi-level tutorial action plan for students of the faculty	
Highly qualified faculty with extensive teaching experience and a high level of training and specialisation	
A very high percentage of faculty with PhD, specialised expertise in their respective areas of knowledge, and also recognised researchers, which allows for the consolidation of a high percentage of staff through the faculty stabilisation plan driven by the Rectorate	
High percentage of faculty with a Veterinary Degree	
High level of faculty participation in various Undergraduate and Master degrees taught at the Veterinary Faculty and in	
other faculties	
High rate of positive evaluations in the DOCENTIA-UCM teaching activity evaluation program (mandatory for all	
teaching figures), reflecting the high quality of teaching and commitment to education	
Leadership in research resources, with a large number (32) of research groups of national and international excellence and reference. Proximity to advanced research centres and teams in all disciplines	





Strengths

A high level of research specialisation within the faculty staff that enables the creation of multidisciplinary collaborations and synergies

Faculty research experience is high and of quality, supported by the high number of six-year research terms, as well as the faculty's position among the top three in attracting economic resources from the UCM and various University Knowledge Transfer Companies

High degree of faculty commitment to educational innovation and growing sensitivity towards Service Learning projects in line with their social commitment

High faculty participation in scientific dissemination and other teaching activities

VTH with 24/7 availability, well-structured in areas and services, with national/international specialist professionals Well-equipped laboratories for the development of teaching and research activities. High degree of collaboration for the use of unique equipment from different research groups

Unique structures such as the PP, TF and VTH

Library equipped with updated resources in line with the degrees offered at the Centre. It has facilities that promote active student participation in extracurricular activities

Existence of a set of spaces and tools on the Internet (UCM Virtual Campus [VC]) that support the learning and teaching of Undergraduate and Master studies, through the Moodle 4.1 platform, integrating the use of Information Technology (IT) in university training

High quality internships in different professional fields

Excellent relations with related institutions, both public and private, regulated through educational collaboration agreements and several Extraordinary Chairs, which allow the realisation of curricular and extracurricular internships, as well as the development of research projects, in which students can also be involved

Active national and international exchange programs for students, faculty, and staff

We have our own Scientific Dissemination and Transfer Unit of the FVM UCM (UdcVet) and which is responsible for the dissemination of scientific topics related to the research, teaching, transfer, and development cooperation activities and promotes and coordinates the participation of research staff and students in scientific outreach events

Professional Guidance and Employability Office with the Veterinary College and a FST- Vet Pre-incubator

The UCM FVM is an institution with broad social recognition

<u>Weaknesses</u>

Lack of independence in the management of the centre and economic dependence on the UCM Rectorate

Difficulties in expansion, improvement of infrastructure, and maintenance of equipment

Difficulty in optimising human resources and infrastructure for research

Limited management capacity in expansion projects or investments. Absence of a faculty-specific support unit specialised in managing research and fundraising

High average age of faculty staff

Excessive administrative workload, both in teaching and research, for the faculty

Insufficient provision of qualified administrative and support staff

Insufficient space for various facilities and activities

Limited interaction and coordination between and within clinical and basic Depts

Limited ability to promote the visibility of the veterinarian and food technologists' work in society

Veterinary Degree in Spain with 300 ECTS, placing it below the European average

High teaching load in some areas of knowledge

Newly arrived teachers lack sufficient knowledge on the DOCENTIA-UCM programme

Low student participation in the teaching evaluation program and in UCM satisfaction surveys

The complex organisation of teaching at the centre does not fully adapt to the DOCENTIA-UCM programme

Need to improve internal and external communication

Need to optimise resources for teaching, research, and clinical activity

Few destinations for the Erasmus exchange program with English as the main language

Insufficient student participation in the faculty's representative bodies and in the Internal QA

Insufficient preparation of graduates in job search skills

Geographical location of the centre that hinders training of students in production species

Need to implement strategies to help increase interest in areas of animal production and the rural world





Opportunities

To lead teaching in Spain and occupy prominent positions in rankings in areas such as FST, animal production, and animal health

To improve educational programmes to adapt to the current demands of society To expand the internationalisation of training through virtual and hybrid teaching

To expand the internationalisation of training through virtual and hybrid teat

To develop programs to attract talent in teaching and research and to incorporate younger staff

To encourage faculty participation in the continuing education courses offered by the UCM's and in our own training activities within the faculty

To participate in the upcoming review of the new budgetary distribution model at the University

To enhance training aimed at students from Latin America

To develop training in new fields of activity such as aquaculture and beekeeping

To increase the offer of continuing education in line with the demands of the professions and society

To strengthen the VTH, the TF, and the PP to improve continuing and postgraduate education.

To improve the connection between TF, Pathological Anatomy Services and PP to favour transversal activities

To take advantage of the location in the agri-food corridor to promote collaborations and create a research and teaching institute in sustainable livestock

To enhance the portfolio of entities due to the high number of applications related to the FST from interns

Opportunity for students to integrate into a high-quality research team

Own UdcVet to promote the transfer of knowledge to other researchers, students, and society

Sustainable training program in scientific methods and to maintain the capability to work with animals for experimentation and educational purposes

Increase in large scientific facilities for research

To improve efficiency in administrative and teaching support services

To promote mobility actions for students, teachers, and administrative and support staff

To reinforce security plans for facilities, personnel, and students

To improve the employability and entrepreneurship of graduates, as well as their follow-up through the Professional Orientation Office of COLVEMA and the FST-Vet Pre-incubator

To organise the association of alumni

To increase the offer of on-line and blended learning in postgraduate degrees

To improve the visibility of the centre's activities and the professionals that may be of interest

Threats

 Reduction in economic resources and dependence on the allocation of funds from the University

 Excessive centralization in decision-making in university services

 Slowing down of staff rejuvenation, both for Teaching and Research Staff (PDI) and for Support Staff

 Competition with other universities in some of the degrees offered and an increase in the cost of tuition

 Deterioration of facilities and increased need for maintenance of own infrastructures

 Depopulation in rural areas

 Decline in livestock numbers

 Shortage of specialised technical personnel to support teaching tasks

Uncertainty regarding the new LOSU

Uncertainty in the face of management difficulties of "curricular external internships" to comply with the new Law on Employment 2023

1.3.2 Operating Plan with timeframe and indicators of achievement of its objectives

The FVM's Strategic Plan comprises core strategic pivots, each with defined goals and objectives, each strategic element is directed towards a specific audience and is to be implemented by designated personnel or teams, within set timeframes for initiation and completion. Regular assessments of progress and annual reporting are compulsory, with the establishment of key performance indicators being essential. See details on the website.





People

Development and well-being of different groups within the faculty are emphasised. The goal for students is to create a supportive environment that promotes their academic and personal growth, preparing them for professional and societal roles. The plan also aims to enhance the skills, training, and working conditions of technical, management, and administrative staff, acknowledging their vital roles in research, teaching, and administration. In addition, the PDI are encouraged to strive for teaching and research excellence. Professional development opportunities are provided, and an environment conducive to high-quality research and teaching is fostered.

Teaching

The undergraduate programs aim to maintain and improve their quality. There is a proposal to extend the veterinary curriculum to six years, aligning it with European standards. Postgraduate education will focus on lifelong learning for alumni, tailoring and enriching PhD and Master programs, and enhancing their international visibility. Additionally, teaching innovation is a priority, with continuous training for faculty in their specialties and encouragement of intra-faculty collaboration.

Research and Knowledge Transfer

This aspect aims to enhance research and knowledge transfer activities by attracting talent and resources, promoting high-impact research projects, fostering innovation and entrepreneurship among staff and students, and increasing participation in research and knowledge transfer.

Mobility and Internationalisation

The plan aims to promote national and international mobility for students, PDI, and support staff. Additionally, it focuses on internationalising academic programs, enhancing visibility, attracting international students, and increasing participation in international relations, cooperation, and volunteering. These efforts are aligned with the Sustainable Development Goals and the 2030 Agenda.

Infrastructure, Centres, and Unique Facilities

The plan aims to modernise and maintain the faculty's infrastructure, centres, and unique facilities. It also aims to ensure a safe work environment, advance biosecurity and labour safety, and support the modernisation of centres such as the Veterinary Museum, Veterinary Teaching Hospital, and VISAVET.

University Life

The aim of this section is to enhance university life by promoting the integration and well-being of students, PDI, and staff. Through cultural, social, sports, and entertainment activities that promote equality, inclusion, and environmental sustainability, and create an inclusive university environment.

Communication and Social Projection:

This involves improving communication within and outside the faculty, enhancing its social presence, consolidating its representation in management and professional events, increasing media coverage, acknowledging alumni contributions, and fostering a strong relationship between the community and society.

Standard 1.4: QAS.

The FVM has a fully implemented <u>Internal QAS</u> (QAS). It has a pyramidal structure made up of Evaluation and Improvement Committees for all the titles offered at the centre, including the CEMGV, whose activities are coordinated by the Establishment's QA Commission (CGCC). All QAS activities are reported to and approved by the Faculty Council. The Commission and its committees include members from all university groups: academic staff, students, faculty and support staff. They also involve external stakeholders directly related to the courses offered at the FVM. The QAS structure ensures the participation of all groups in the established procedures for the analysis and improvement of degrees, guaranteeing the evaluation of results, transparency, and the application of improvement mechanisms to complete the QA cycle. The overall work of the QAS consists of collecting and analysing information on the Veterinary Degree in order to define appropriate improvement measures.

• At the first level, the CEMGV is responsible for day-to-day QA. As the direct coordinating body for the degree, it collects information and evidence on the implementation and development of the curriculum. This information is based on the objectives, content, teaching activities, evaluation, communication and quality procedures outlined in the <u>National Agency</u>





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for Evaluation and Accreditation (ANECA) document for the Veterinary Degree. The main sources of information are academic indicators (performance, dropout rates, efficiency of graduates, graduation, and faculty evaluation), the results of annual teaching follow-up meetings, satisfaction surveys and management of complaints and suggestions from every estament. The CEMGV is responsible for preparing the annual self-evaluation reports that are submitted to the UCM and external quality agencies for the renewal of the title's accreditation.

- At a second level, the CGCC coordinates and receives information from the evaluation and improvement committees of the undergraduate and postgraduate programs offered by the FVM. It ensures the integrated coordination of QA within our institution.
- At the highest level, the Faculty Council reviews the activities of the CGCC and evaluates proposals for improvement which, if approved, are implemented, and also evaluates self-evaluation and accreditation reports.
- QA activities are coordinated by the Vice-Dean for Quality Assurance, and although the CGCC and the CEMGV work together, their roles are clearly defined by regulations, as set out in their respective statutes approved by the Faculty Council-21 December 2010 (Appendix 4.1).

In addition to the FVM's QAS, the UCM has a <u>Quality Office</u>, which reports to the Vice-Rector's Office for Quality. It collects institutional academic indicators, evaluates the self-evaluation reports of all UCM programs and submits these reports to external quality agencies. Ultimately, the quality of the Veterinary Medicine programs at the UCM is guaranteed by the Madri+d Foundation, designated by the CM Government.

For effective management, the FVM's QAS collects, analyses, and uses information from internal and external sources:

- Centralised degree results in the UCM's Integrated Institutional Data System (SIDI). It meets the needs of quality, human resources, academic organisation, research, economic, and on-line teaching information.
- Teaching follow-up meetings for the degree. They are held each academic year with subject coordinators and are open to all stakeholders in the faculty, with a focus on students.
- Direct contributions from students' representatives, actively collaborating in both coordination and quality assessment.
- Complaints and suggestions mailbox, available to students, teachers, and support staff.
- Satisfaction surveys conducted by the UCM Quality Office, completed by students, teachers, support staff, and external stakeholders, including students of the FVM (Appendix 4.2).
- DOCENTIA-UCM program, which includes student evaluation of teaching.
- External quality control agencies (Madri+d Foundation).

The FVM's QAS summarises its activities in an annual Degree Follow-up Report (*Memoria de Seguimiento del Grado*), based on the above procedures and data sources. The report oversees the quality management regarding communication and transparency strategies, function and structure (QAS), performance indicators, implementation of quality improvement, application of recommendations from previous evaluations, curriculum modifications and evaluation of strengths and weaknesses. The FVM's QAS is evaluated annually by the UCM Quality Office and periodically by external quality agencies. Feedback and recommendations from these evaluations are analysed by the QAS to implement improvements. In 2023, the accreditation of the Veterinary Degree was reviewed, as required by the Ministry of Science, Innovation and Universities. The FVM's QAS ensures that all internal and external stakeholders are represented and actively participate in the three bodies, ensuring comprehensive and cyclical input/output from all parties. The contribution of students and external stakeholders is crucial for the continuous improvement of the Veterinary Degree to meet students' expectations for quality education and the perspectives of the veterinary profession. FVM students are required to actively participate in QA procedures, especially regarding communication, transparency,





evaluation, and support. The annual self-evaluation report is a diagnostic tool for the assessment of development, objective achievement, detection of necessary improvements and new objectives based on input from stakeholders and evaluation bodies, enabling a better understanding of the challenges and achievements of the programme and needed improvements. The PDCA cycle is an iterative approach to continuously improve the quality of the FVM, ensuring it adapts to the changing needs of students and teachers (Figure 1.4).

The FVM has formal mechanisms for monitoring and reviewing its programmes to ensure their continued relevance and maintain the confidence of students and other stakeholders in higher education. Similarly, the QAS collects, analyses, and uses relevant information for the effective management of its activities, providing up-to-date, impartial, and objective, qualitative and quantitative information on the programmes offered. The UCM has considered the guidelines of the Spanish Network of University Quality Agencies and the external agency (Madri+d Foundation) for the annual completion of the Degree Follow-up Report. The guidelines derived from the *Methodological Guide for the Development of the QA System of UCM Titles*, and the *European Standards and Guidelines for QA in the EHEA* (Erevan, 2015) have also been taken into account.

As a result of the implementation of the QAS, the FVM has coined its brand "Veterinary Studies are Quality" (*Veterinaria es Calidad*). This brand also reflects the quality culture of our institution.

Standard 1.5: VEE's Commitment to Transparency

The FVM, in its commitment to maintain clear, objective and accessible communication with its stakeholders and society in general, guarantees public information through the <u>Centre's website</u> with an independent section for the <u>Veterinary Degree</u>. This section provides access to all the specific information regarding this degree, making it readily accessible to students and society in general. The Vice-Dean for Communications, Networks and Teaching Innovation works together with the Degree Coordination and Management to keep the website continuously updated in its different sections. The structure is in line with the standards required for the degree's verification report.

The FVM meticulously communicates through its website the overall goals and objectives, providing clear and concise statements on its strategy guidelines, so that stakeholders and the general public are well informed. Additionally, the faculty provides information on the <u>specific objectives of the Veterinary Degree</u> syllabus on the degree's website and through <u>official publications</u>. Information on the degrees is also spread throughout specific activities such as the <u>International Student Fair and Educational Offer</u> (Aula), <u>Open Days</u>, or some of the activities carried out during the <u>Science Week</u>, and the <u>European Researchers' Night</u>. The participation in the <u>Ranking of "El Mundo"</u> also serves as advertisement for the degree.

Through regular updates and reports, a global understanding of FVM's commitment to excellence in education, cutting-edge research and innovative teaching methodologies is conveyed. The annual monitoring reports, newsletters or specific communication channels, stakeholders and the public inform on the FVM's latest initiatives, developments, and contributions to the academic and research communities.

Regarding academic and teaching activities, the specific information for the development of the Veterinary Degree is made public prior to the enrolment date so that students have the necessary data both for the choice of studies and to follow the teaching-learning process. Future students can find full information on access and admission mechanisms and details of the degree in the Study tab, choosing the <u>Veterinary Degree</u>, where they will find specific information on the characteristics of the degree and the teaching schedule for the course, regarding all subjects and their practical and theoretical structure. Thus, they can easily access the <u>teaching details of the Degree</u> from the home page of the degree or from the <u>Teaching Planning tab</u>. The specific information is published in June of the previous academic year providing the information at least 15 days before enrolment begins. In addition, the





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Faculty's website includes the abbreviated Curriculum Vitae of the academic staff involved in each degree as well as the structure and characteristics of the teaching staff assigned to the degree, (number of lecturers by category and the percentage of PhDs).

Regarding research activities, in 2021 the Vice-Deanship for Research, Transfer and Library of the Faculty set up the UdcVet, responsible for the preparation and dissemination of news, interviews, opinion articles, audio-visual material and monographs on scientific topics related to research, teaching, transfer and development cooperation activities carried out at the FVM (see Standard 10.2).

The home page of the main website the FVM has:

- a fortnightly News section, with four outstanding news items on the Faculty's own activities or events or those of academic-professional interest related to any of the degrees taught.
- a section of Activities and Events where all the information about what is happening not only • in the faculty, but also in the UCM, is announced.
- a section of Outstanding Notices. In this section important deadlines are announced, such as the opening of the registration period or the graduation thesis (GTh) registrations, among other things.

QA processes include employability as a mandatory criterion in monitoring reports and in the accreditation of degrees. The Vice-Rectorate for Quality, carries out annual on-line questionnaires to conduct labour market insertion surveys and regular employment information on new graduates. The survey allows us to understand the different career paths of the graduates and their characteristics, to carry out the training of the graduates, and the collaboration of the institution in their successful entry into the labour market. The results are analysed each year by the QAS to provide guidance on how the University can continue its work to improve the employability of its graduates and help them make decisions to guide their professional future. The information is available in the Quality section of the Faculty's website. In addition to these, the FVM has its own database of graduates, which allows it to monitor them and their labour market insertion (Appendix 4.3)

Moreover, the FVM organises specialised sessions and workshops in collaboration with professional associations and public departments, providing students with real-world knowledge and networking opportunities. In addition, the faculty conducts guided tours of its facilities, giving students, staff and authorities an in-depth insight into the academic environment and operational aspects of the faculty. This not only enhances the educational experience, but also fosters a deeper connection and understanding of the role and impact of the faculty on the veterinary profession.

The FVM also collaborates in the organisation of Master and continuing education programmes, contributing to students' future professional careers. Other links are established between the university and society in terms of continuing education through active collaborations, such as the Extraordinary Chairs with companies, such as Hill's, Pet Nutrition, and ICV-Evidensia, COLVEMA and other professional associations and public entities. The FVM actively participates in the Governing Board of COLVEMA, in relevant forums such as the Guide Dog Foundation and the Municipal Forum for the Protection and Welfare of Animals in Madrid. He leads the implementation of the "Intermediate Specialisation" system designed by the Spanish Veterinary Collegiate Organization (OCV). This relationship is formalised by the existence of the official "Extraordinary Chair COLVEMA-UCM". Through this link, numerous continuing education initiatives are proposed and developed by our teachers, in collaboration with the Professional Association and a Professional Orientation Office is located in our Establishment, attended by COLVEMA, to advise students on their future employment.

The Vice-Rectorate for Quality satisfaction survey begins by characterising the sample sociodemographically, including parameters such as gender, age, place of residence, employment status, and work related to studies. This reveals the profile of the current student population. Next, data is collected on overall satisfaction with UCM and with the degree, according to different attributes.





Subsequently, the results found for the variables related to student satisfaction in relation to different aspects are detailed. Finally, the results obtained for the different dimensions of commitment (loyalty, prescription, and attachment) that students maintain with the institution are presented. The results of these surveys are <u>publicly available</u> in the Quality section of the FVM's website. By publishing the results of the surveys, the FVM expresses its commitment to transparency and to involve in the QAS all those who, with their suggestions, ideas and opinions, wish to contribute to the improvement of our teaching, research and material and administrative aspects that support and make them possible. By means of these proactive communication strategies, the FVM aims for a transparent and collaborative relationship with its stakeholders and the public, building trust while demonstrating its commitment to academic excellence and social impact. An indicator of this is the active presence on social networks and the regular updates of its institutional website. To disseminate information and reach a wider audience, the faculty makes effective use of various social media channels, such as Facebook, X, Instagram, and LinkedIn.

All the information related to ESEVT status is in the <u>quality section</u> of the FVM website, which includes the <u>most recent self-assessment</u>, <u>visitation reports</u> (2017), and the <u>Interim Report</u> (2020) offering transparent insights into the accreditation process. It can be accessed quickly from the main page of the <u>Faculty's website</u>, under the EAEVE logo.

Standard 1.6: QA guarantee

The strategic plan, organisation, activities, and QA policy of the FVM are coordinated by our QAS, within the framework of the UCM Quality Office. The main operating bodies of the QAS, the CGCC and the CEMGV work in a collaborative and coordinated manner, in close cooperation with academic units and relevant stakeholders, and their functions are defined in the respective regulations. Both are composed of representatives from all cohorts of the University, namely students, faculty, and administrative staff. Additionally, they engage external stakeholders connected with the courses provided by the FVM. The QAS's arrangement guarantees the participation of all internal and external stakeholders in the prescribed procedures, which include the following steps:

- Evaluation and identification of priority objectives (interviews with students, staff, external stakeholders)
- Construction of strategic themes (Responsibility: Dean's Office and Faculty Council)
- Definition, communication, and approval of strategic themes (Responsibility: Faculty Council)
- Connection with other improvement plans (University, CM government, Country)
- Assignment of committees to assess improvements (Responsibility: QA Committees)
- Assessment of improvements (Responsibility: QA Committees)
- Implementation and plan adjustment: communication of results (Responsibility: QA Committees and Faculty Council)
- Reports to/from QA external agencies (Responsibility: QA Committees and Faculty Council)
- Implementation and plan adjustment: reassessment and redefinition of objectives (Responsibility: Dean's Office and Faculty Council)
- Throughout the entire process, communication via e-mail, web, social networks, COLVEMA, etc. (Responsibility: Dean's Office)

Decisions regarding organisation and activities are based on self-assessment reports, data collection from internal and external stakeholders, and input from external QA agencies. FVM's QA committees are composed of representatives from academic staff, support staff, students, and external stakeholders, aiming to achieve a comprehensive quality culture in our institution. The involvement of the President of COLVEMA in the Evaluation and CEMGV and a representative of the Spanish Conference of Veterinary Faculties in the CGCC ensures a connection with society, the veterinary profession, and veterinary education in Spain. This comprehensive approach ensures a transparent, inclusive, and





effective process for strategic planning, organisational decisions, activities, and QA policies. Committees responsible for decision-making play a crucial role in disseminating information to relevant parties. Regular communication is maintained through official announcements, e-mails, and dedicated platforms.

Complete information about our quality policy, procedures, and actions is available on the <u>FVM</u> <u>website</u>. QAS activities are also advertised as headlines on the FVM website, VC, classroom screens, informative displays, e-mail, and social media, and occasionally through posters and printed brochures.

Standard 1.7: ESEVT evaluations

In October 1993, the FVM welcomed the first team of experts from EAEVE for an evaluation visit and has undergone several evaluations under the ESEVT, as endorsed by EAEVE. The FVM's initial positive assessment was in 1998, with subsequent re-evaluations and approvals in 2006 and 2017. Following the 2017 Re-Visitation, the FVM has maintained its compliance with ESEVT standards, with no significant changes affecting this status. In March 2020, three and a half years post-visitation, the FVM submitted a concise Interim Report to the EAEVE Office, this report's review by the European Committee of Veterinary Education (ECOVE) reaffirmed the continued accredited status of the FVM. Since the Re-Visitation in September 2017, the FVM has not experienced any significant regulatory changes at either the UCM or national levels. The staff at the FVM have been diligently working to implement corrective actions and improvements in line with the recommendations and suggestions made by the ESEVT visitation team. Concurrently, efforts have been made to maintain and enhance the strengths identified by the experts in their report. Despite the challenges posed by the pandemic in Spain, the FVM managed to adapt its operations to comply with current legislation and guidelines regarding COVID-19 and return the following year to a level of activity comparable to that of the pre-pandemic period, guaranteeing the continued compliance with ESEVT Standards.

I. Progress in Correcting the Major Deficiency: "Insufficient number of hours of hands-on clinical training with real patients under the supervision of academic staff in both companion and food-producing animals in order to achieve Day One Competences (DOC) for each individual student". Efforts to analyse and address this deficiency were set in motion by the QAS soon after receiving the Initial Visitation Report. Corrective measures were endorsed at various levels of the QAS and ratified by the Faculty Council in July 2017. We have been implemented with additional hands-on clinical training for students during years 2 to 5 in various clinical subjects of our curriculum such as Propaedeutics, Radiology and Diagnostic Imaging, Obstetrics and Reproduction I and II, Infectious Diseases, Parasitic Diseases, Internal Medicine I and II, and Special Surgery, along with a minimum of 24 hours of training in the Emergency Service. The effectiveness of these measures is continuously monitored by our QAS.

II. Progress in Correcting Minor Deficiencies:

Minor Deficiency 1: "Insufficient resources for the maintenance of current facilities and purchase of new equipment". The UCM Rectorate has committed to supporting the FVM through the general budget of the university. Consequently, in 2017, the FVM received an additional 80,000 € for the improvement and maintenance of clinical facilities. In subsequent years, the FVM has consistently received extra budget allocations for biosecurity and animal feeding (see Area 2). Since 2018, an annual programme of extraordinary funding for depts has been implemented by the UCM, facilitating proposals for additional expenditure in facilities and equipment. The FVM has also secured additional funding from the UCM's general budget for specific requirements in equipment, premises, staff, and updated teaching materials.

Minor Deficiency 2: "Insufficient transversal and collaborative approach between disciplines in some areas of the curriculum and imbalance in the curriculum between theoretical, practical, and clinical training to the detriment of the latter". Regular teaching follow-up meetings with the coordinators of





subjects requiring transversal coordination are conducted to maintain and enhance interdisciplinary collaboration. The CEMGV oversees all procedures and proposals. Various subjects have significantly increased their hands-on clinical training activities to mitigate the imbalance between theoretical, practical, and clinical training in the curriculum. Furthermore, the QAS has conducted surveys with students and teachers during the following academic years to collect feedback on the strengths and weaknesses of the current curriculum. This data is being compiled for consideration in the upcoming revision of the Degree, which will be feasible after the re-accreditation process by the QA of the CM (Madri+d Foundation, ENQA member) in 2022-23.

Minor Deficiency 3: "Insufficient hands-on training in post-mortem examination for FSQ" This issue has been addressed by appointing two Professional Associate Professors (ASO) for the subject of "Hygiene, Inspection and Food Safety," staffed by Veterinary Inspectors working in CM slaughterhouses. They are responsible for guiding Veterinary students during visits to slaughterhouses focused on post-mortem inspection across various animal species, ruminants, pig and poultry. An agreement has been signed between the FVM and the Regional Administration of Food Hygiene and Safety to facilitate such practical training. This additional practical experience is crucial for enhancing the DOC of our students.

Minor Deficiency 4: "Absence of extinguishers in some of the large lecture rooms, unfinished isolation facilities and procedures for large animals, inadequate procedures for the storage of drugs in some clinical rooms and non-systematic implementation of biosecurity procedures in laboratories, VTH and TF." The FVM Self-Protection Plan has been adapted to comply with the new regulation RD 513/2017. The isolation facilities for both large and small animals have been fully operational since their remodelling. The VTH Pharmacy Service is authorised by the Health Council of the CM to handle the dispensation, storage, preservation, and control of drugs (C-403-M). The management of drug use and storage is under continuous review, with these protocols clearly outlined in the relevant action protocols. The Biosecurity Committee ensures compliance and regularly updates the biosecurity protocols, with all pertinent information visibly displayed and consistently updated on the website for accessibility to both students and staff. Efforts have been intensified to instil a culture of biosecurity among staff and students across all FVM facilities. Mandatory annual biosecurity seminars, led by the Head of Biosecurity of the FVM and the Head of the VTH Pharmacy Service, are conducted for graduate students at the start of each academic year and before Clinical Rotations commence. These seminars are also provided annually for postgraduate students and FVM staff, complemented by regular training in occupational hazards by UCM staff responsible for this area.

Minor Deficiency 5: "Insufficient number of ruminant and pig necropsies" Given Spain's stringent legislation on the movement of animal origin materials and cadaver removal policies, continuous necropsies of these species are challenging. Hence, the collaboration of teachers specialising in ruminants and pigs is vital for skill acquisition through extra-mural activities. To strengthen this training, two ASO with expertise in food-producing animals and overseeing numerous farms were recruited in 2018. This has enabled systematic training of our students in necropsy techniques for these species. The FVM also facilitates the transportation of cadavers (compliant with legal regulations) for on-site necropsies and routinely collects specimens from slaughterhouses, aiding in identifying real lesions in the mentioned species. Since 2016-17, the FVM has implemented a registration system for extra-mural activities, including necropsies. The system has been evaluated and is set to be redesigned for the next academic year for improved efficiency.

Minor Deficiency 6: "Insufficient autonomy of the Establishment to adapt the number of students to the available resources and to control their progression." The FVM's autonomy in adjusting student numbers is limited. The annual admission count is strictly determined by National Authorities and was unchanged until re-accreditation in July 2017. Subsequently, the Faculty Council requested a





reduction in new admissions to 155 students, which was approved by the UCM Rectorate and has been maintained. Presently, discussions with UCM Academic Authorities are underway to evaluate the balance between available resources and student numbers for the upcoming three-year period.

Minor Deficiency 7: "Insufficient number of teaching staff specialised in clinical disciplines and services, inadequate formal 'teach and assess' training for practitioners involved in extra-mural clinical training, lack of support and recognition for teaching and clinical performances affecting career progression, insufficient quantity and qualifications of support staff in clinical services and limited personal development opportunities for staff." To address this, nine ASO specialising in clinical disciplines have been appointed for intra-mural and/or extra-mural clinical activities. Annual meetings with practitioners involved in extra-mural training are held to standardise teaching criteria and objectives aligned with DOC. Since 2017, clinical profiles (e.g., European/American Board Veterinary Specialisations [EBVS/ABVS]) have been incorporated into the selection and promotion criteria for academic positions, enhancing the quality of newly recruited clinical teaching staff. The UCM and FVM have also bolstered training programs for academic staff, particularly in modern teaching technologies and learning assessment methods (see Area 9). The FVM has established a training course for Veterinary Technical Assistants to provide professionals with advanced qualifications. VTH support staff are engaged in student training, facilitating their knowledge and skill updates, and enhancing their opportunities for stabilisation and promotion.

Comments on Area 1

The FVM has well-defined goals, a mission, a vision, and values. It constantly strives to improve quality, taking into account its uniqueness and capabilities. The institution aims to align with excellence in higher education in veterinary training and the changing needs of society. The creation of Strategic Plans improves the achievement of goals and clarifies the future improvement. At University level, achievement of the general and specific objectives is assessed and followed up by the UCM Social Council.

Between 2017 and 2018, the UCM embarked on a significant restructuring process, encompassing various faculties, depts, and administrative units. For the FVM, this transition resulted in the transformation from eight to three Depts and six DS. Despite these changes, the impact within our faculty has been minimal, but in some cases, the newly formed DS have shown even improved functionality. Within the FVM, equal consideration and representation have been given to both Dept heads and heads of DS in all decision-making bodies and committees. This inclusive approach has been instrumental in enhancing the organisation of our teaching, research, and other academic activities, aligning closely with our strategic objectives and the overall mission of the FVM.

The FVM recognises the importance of stakeholders' opinions, including those of students, teaching and administrative staff and veterinary professionals. These views are collected at different levels and are taken into account in the adaptation of courses.

Suggestions for improvement in Area 1

The need for greater autonomy of the governing bodies of the FVM and the VTH is evident, especially in areas where dependence on the central bodies of the UCM, such as staff recruitment or financial management, often delays action. Strengthening autonomy in these areas could significantly streamline processes and decision-making. In particular, the VTH Council has proposed the creation of an organisation or cost centre dedicated to clinical activities and university hospitals. Such a structure would likely allow for a more efficient and cost-effective operation.

The implementation of the strategic plan has been meticulously structured to ensure thorough monitoring and follow-up. However, the success of this plan depends on the support of the UCM Governing Council. Recognising the social importance of having well-trained veterinarians, especially





those specialised in production animals where there is a growing shortage at the European level, even having received additional financial support since 2017, it is imperative to increase the endowment of the FVM. This should include more staff (both teaching and support), increased research funding and improved infrastructure.

We will continue to raise awareness and improve the "quality culture" in all facets of FVM life as well as to promote the presence and involvement of stakeholders in the activities of designing, organising, reviewing and modifying the FVM's teaching and research approaches.

One of our strategic plan's goals is to reinvigorate student participation in governance bodies, which has seen a decline in student candidates willing to be representatives following the pandemic.

It is essential to extend the Degree to 360 credits to align with most European establishments. This extension should be accompanied by the necessary increase in resources, reflecting our commitment to meeting the evolving needs of veterinary education and practice.



Figure 1.3. Organisation of the FVM



Figure 1.4. Using the PDCA Cycle to Continually Improve FVM Quality



Finances




Standard 2.1: Finances (expenditures and revenues)

Organic Law of Universities (LOU) 6/2001 and Organic Law for the Modification of the Organic Law of Universities (LOMLOU) 4/2007 state that the economic and financial autonomy of the Universities are a fundamental matter. The autonomy in the planning, approval and budget and asset management are an essential right of each university as contemplated in Article 2.2.h (Economic and Financial Management Regulation, UCM).

The FVM and the VTH, as other UCM Centres, have a particular financial system, since the most important areas of expenditure, namely staff costs, services and work contracted out to external companies, maintenance services, waste collection and others, are managed and paid directly by the UCM Central Services (Rectorate), while the FVM and VTH only receive those services and goods. As a result, two main types of expenditure are differentiated in the FVM and VTH: expenditure directly managed by the FVM/VTH and expenditure managed by the UCM Central Services, which are considered financed in revenues.

The budget of the UCM is annual, per calendar year (from January 1st to December 31st) and not per academic year (from September 1^{ts} to August 30th). Initial approval (preliminary draft) is given by the UCM Governing Council, which then submits it to the UCM Social Council for the final approval. In 2023, the budget of the UCM was 618,023,059.42 \in , with the estimated total costs financed by the following income sources: Fees, public prices and other income (fees and public prices are decided by the CM): 23.41%. Capital transfers (capital and investment expenditure): 10.07%. Ordinary transfers (ordinary expenses): 65.42%. Others (patrimonial income, financial liabilities): 1.10%

The faculties of the UCM receive an annual budget from the Rectorate for direct management as envisaged in the Programme 2000, Education Management (*Programa 2000 "GESTIÓN DE LA ENSEÑANZA*"), to cover part of the so-called *Ordinary Expenditure* on goods and services (those which are not provided by the Central Services of the UCM). The annual endowment for each Centre is calculated using a model in force since the year 2021, which is being reviewed to be updated in the next years. The total budget assigned to the Centres (14,404,694.35 \in in 2023) is distributed among them according to the criteria described in Annex 2

The annual amount assigned to the FVM in 2022 was 617,316.64 €. Since 2021 the Rectorate does not discount the amount corresponding to the central acquisition/subscription of journals/books for the library and adds the income corresponding to the Permanent Education (Continuing Education and UCM Postgraduate courses) offered by the Centre (5% of the total budget of each course). The amounts received by the FVM over the last three years were:

2022	2021	2020
617,316.64€	594,424.95€	594,574.09€

The Faculty Council applies general deductions for some centralised Faculty Services (library, maintenance of animals for practical training, student associations, Veterinary Museum, optional subjects and others), and the 0.7% to be discounted for the Cooperation for Development Programme $(3,682.07 \ ensuremath{\in})$. The apportionment of the total budget available for the Degree in Veterinary in 2022 was $521,703.67 \ ensuremath{\in}$. The available funds are then allocated as follows: $94,105.32 \ ensuremath{\in}$ to the Central Services, $47,500.00 \ ensuremath{\in}$ to Variable Faculty Services and the remainder to the departments, totalling $375,417.28 \ ensuremath{\in}$. See details Annex 2.

In 2017 the Rectorate committed to supporting the FVM for as long as the faculty allocation model was insufficient for its proper functioning, and in fact, in the same year, the FVM received additional funding of $80,000 \in$ to improve and maintain the clinical facilities. In the following years, the FVM received direct support from an additional budget line dedicated to biosecurity and animal feeding, ranging from 65,000 to 192,000 \in per year from 2018 to 2023.



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Additional	2022	2021	2020
funding	100,000.00€	192,081.95€	167,726.00€

The distribution model for this additional funding among Depts/ DS is described in Annex 2. From 2024 onwards, we have also secured an annual budget line of 67,000 € specifically for the maintenance and operation of our TF, animal feeding and biosecurity.

The VTH receives an annual endowment which is based on 90% of the revenues from the clinical activities and diagnostic services provided during the previous calendar year. This budget is used for consumables, equipment purchases and maintenance, salaries of interns or additional support staff, renovation of the premises, etc. Since that amount usually does not cover the ordinary expenditure, the Rectorate usually increases the final endowment. For more details, see Annex 2. The total amounts received by the VTH in the last three years were:

2022	2021	2020
1,204,503.40 €	1,191,678.40€	1,009,239.97 €

2.1.1 Overhead to the official authority on revenues from services and research grants

The FVM and VTH contribute a portion of their revenues from various services and research grants to the UCM, as per standard financial practice. This includes:

- 10% from clinical work undertaken by the VTH.
- 10% from diagnostic/external services as per Article 83 LOU.
- 5% from research grants and projects.
- 5% from Permanent Education courses.
- 5% from collaboration agreements and Extraordinary Chairs.

2.1.2 Annual tuition fee for national and international students

There are no full-fee students in our system. The Spanish model of university funding is decentralised to the Autonomous Communities, where the University education is essentially public and covers 90% of the total cost. The remainder is the tuition fee of the so-called "standard student". Public university tuition fees for official degree programs are set by each Autonomous Community in Spain, and in Madrid are regulated by the <u>Official Bulletin of the CM</u>. This decree establishes the price per ECTS credit for each undergraduate and master programme; the total tuition fee is calculated by multiplying this price by the total number of credits enrolled (typically, a full course consists of 60 ECTS). For PhD studies, an annual fee is set for academic supervision. The decree also regulates the fees for other services, such as the fees for the Assessment for University Access (EvAU) exams, administrative services, issuance of degrees, etc.

The cost of each credit depends on the experimental grading and the times the student has been previously enrolled in a subject. The Degree in Veterinary has the maximum experimental grading (level 1) and therefore the public prices are:

1 st enrolment	2 nd enrolment	3 rd enrolment	4 th and successive enrolments
20.69 €/ECTS	48.03 €/ECTS	98.75 €/ECTS	136.44 €/ECTS

The annual tuition fee for a national student (2023-24), EU student and non-EU resident student, who passed all the subjects the first time, was: 60 ECTS x 20.69 €/ECTS= 1,241.4 €

In accordance with LOMLOU (article 81.3b), the Universities charge foreign students over 18 years old (non-EU resident) (excluding EU students and those to whom the Community scheme is applicable) the fees corresponding to a 4^{th} enrolment (136.44 €/ECTS).





The average annual direct cost for training a student in the 2020-21 and 2022-23 academic periods was $24,203.34 \in$, obtained as the sum of expenditure on academic staff (A.1) and support staff (A.2), operating costs (B.1.1, B.1.2, B.1.3, B2) and maintained costs (C.1, C.2) and equipment (D) as shown in Annex 2 (Table 2.1.1), divided by the mean of students enrolled (1,016 students).

2.1.3 Utilities and other expenditures directly paid by the official authority and not included in the expenditure tables.

Total costs directly paid by the Central Services of the UCM (Rectorate) are shown in Annex 2.

Table 2.1.1. Annual expenditures

	Year1	2022	2021	2020	Mean
А	Personnel	23,708,665.66€	22,337,304.90€	22,022,875.31 €	22,689,615.29 €
A.1	Academic Staff	15,554,771.60€	14,702,171.77€	14,217,398.48€	14,824,780.62 €
A.2	Support Staff	6,734,924.57€	6,552,976.93€	6,315,424.64€	6,534,442.05€
В	Operating Costs	14,493,600.57 €	13,110,402.69€	23,228,295.12€	16,944,099.46 €
С	Maintenance Costs ²	1,941,941.59€	1,254,046.27€	935,561.64€	1,377,183.17€
D	Equipment	630,379.53€	334,274.02€	233,077.55€	399,243.70€
	Total Expenditure	40,774,587.35 €	37,036,027.88 €	46,419,809.62 €	41,410,141.62 €

¹ Calendar year (from January 1st to December 31st) ² Directly paid by the Central Services of the UCM (Rectorate) ³ Research data from 2022 are updated to December 31st

The tuition fees are collected and managed by the Rectorate and are not delivered in full to the FVM. **Table 2.1.2. Annual revenues**

	Year ¹	2022	2021	2020	Mean
A	Personnel	23,170,036.03 €	21.856.730.12 €	21,548,908.11 €	22,191,891.42 €
В	Operating Costs	13.957.476.61 €	12,597,105.52 €	22,886,374.74 €	16,480,318.96€
С	Maintenance Costs ²	1,941,941.59 €	1,254,046.27 €	935,561.64€	1,377,183.17 €
D	Equipment	445,000.00 €	58,416.65€	0.00€	167.805.55€
Е	Tuition Fee (Standard Students)	1,702,300.46 €	1.798.610.60 €	1.649.049.83 €	1.716.653.63 €
F	Tuition Fee (Full Fee Students)	0.00 €	0.00€	0.00€	0.00€
G	Clinical Services	870,736.25 €	767.246.26€	481.235.54€	706.406.02 €
Н	Diagnostic Services	373.172.68 €	328.819.82 €	206.243.80€	302.745.43 €
I	Continuing and Postgraduate	196.628.94 €	158,167.51€	135,140.87€	163.312.44 €
J	Donations	0.00 €	0.00€	0.00€	0.00 €
К	Renting Facilities	32.680.83 €	43.585.99€	32,138.96€	36,135.26€
	Total Revenues	42,689,973.39 €	38,862,728.74 €	47,874,653.49 €	43,142,451.87 €

¹ Calendar year (from January 1st to December 31st)² Directly paid by the Central Services of UCM (Rectorate)³ Research data from 2022 are updated to December 31st, Revenues of Staff associated with Research Projects are not included, since these data are not available in the Research Service

Table 2.1.3. Annual balance between expenditures and revenues

	2022	2021	2020	TOTAL
Total revenues	42,689,973.39€	38,862,728.74€	47,874,653.49€	43,142,451.87€
Total expenditure	40,774,587.35 €	37,036,027.88€	46,419,809.62€	41,410,141.62€
Annual Balance	1,915,386.04 €	1,826,700.86 €	1,454,843.87 €	1,732,310.26 €





Standard 2.2: Clinical and field services

2.2.1 Financial management of the clinical and field services

The VTH is a centre within the UCM, with a budget separate from that of the FVM. According to its regulations, the VTH aims to: Ensure that future graduates receive appropriate clinical training in the areas of Medicine, Surgery, and Animal Health, promote continuing clinical training through postgraduate courses and specialisation, support the development of veterinary research, provide high quality veterinary services, offering its members the necessary means for the development of clinical work and contribute to social welfare that benefits the veterinary profession and animals. Although the VTH is an independent entity in terms of its activities, its primary mission remains to provide clinical teaching to students of the FVM. Consequently, the VTH operates without self-funding, the Rectorate plays a crucial role in supporting the VTH by covering a significant portion of its costs. This includes financing utilities such as electricity, water consumption, heating, and cleaning services. Additionally, the Rectorate finances the salaries of the support staff, as outlined in the Staff Position Listing. Within the VTH, most clinical activities are carried out by academic staff from the departments of the FVM (98% of academic staff of Medicine and Surgery Dept develop clinical activity in the VTH); these staff members, who are assigned to various services within the VTH, receive their salaries directly from the Rectorate. As described in the previous section, the VTH receives an annual endowment from the Rectorate, based on 90% of the previous year's clinical and diagnostic service revenues. If this amount is not enough to cover the usual expenses, the Rectorate usually increases the final endowment.

Our institution's field services are an essential part of the veterinary curriculum, serving as key educational resources. Students engage in a range of field activities, including extra-mural practical training, under the guidance and supervision of ASO. These hands-on experiences take place at livestock facilities, where students actively apply their learning in various areas of study. Importantly, the economic aspect of these field activities does not compromise their educational value. The primary focus of these services is on instructional integrity, ensuring that the educational objectives are met effectively. There is no financial dependency on clinical and field services that could potentially compromise the teaching process. Consequently, these services are structured to prioritise educational outcomes over financial self-sufficiency. This approach aligns with our Strategic Plan and the standards established by the ESEVT.

2.2.2 Autonomy on the financial process

We maintain sufficient autonomy to use our resources effectively for educational purposes, ensuring that clinical and field services continue to serve as valuable educational tools and contribute significantly to the comprehensive training of our veterinary students. The FVM and VTH operate under a streamlined financial structure. While the overarching revenue and expenditure framework is managed by the Rectorate, the FVM and VTH are allocated an annual budget as outlined in section 2.1.1, ensuring targeted and effective use of funds. The FVM and VTH have independent revenue sources: 100% of the taxable income from the rental of their facilities, 85% of revenue from Permanent Education courses and 90% of revenue from Research Projects, Collaboration Agreements and Extraordinary Chairsall of them are managed by the respective directors, who tailor the funds to specific needs.

Standard 2.3: Resources

2.3.1 Ongoing and planned major investments

The total planned major investments are expected to exceed 2,200,000 €. These investments, funded jointly by the Rectorate and the FVM, encompass several key projects:

- Development of a BSL-2 Laboratory, financed by the Rectorate.
- Refurbishment of the Animal Health building, funded by the Rectorate.





- Replacement of windows in the Main Building, also financed by the Rectorate.
- Renewal of vehicles for student transportation, financed by the FVM.
- Renewal of the air conditioning system in classrooms and offices of the VTH.
- High-end CT acquisition of the VTH, including a special platform adapted to the CT and the room adequacy:1,500,000 € (in progress).

2.3.2 Prospected expenditures and revenues for the next 3 academic years

It is difficult to estimate the expenditures and revenues for the next years, primarily due to the volatility and instability of global markets, the rise in energy costs, and the unpredictable fluctuations in commodity prices. Despite these uncertainties, we anticipate an increase in the endowment from the Rectorate, aimed at counterbalancing potential rises in the official consumer price index. Moreover, any additional increase to our budget would likely depend on supplementary income from the CM. However, there has been a firm commitment from the UCM to provide additional funding to the FVM since 2017. This support is manifested in the form of annually granted, non-budgeted additional funding, particularly for biosecurity measures and animal feed. From 2024 onwards, a dedicated budget of 67,000 € is included for the maintenance of the TF, animal feeding and biosecurity; additionally to the regular budget of the FVM (629,867.45 €) as indicated in the UCM 2024 budget. Moreover, there is an ongoing intention to reevaluate and potentially revise the "Allocation Model for Faculties," as approved by the Governing Council on September 28, 2021. The revision of this model is essential to ensure that the allocation of funds continues to meet the evolving needs and challenges faced by FVM. This proactive approach in budgetary planning and allocation reflects the University's commitment to maintaining a supportive and responsive financial framework that aligns with the growing needs of the FVM in the coming years.

The VTH receives annual funding from the Rectorate, which is calculated on the basis of 90% of the income from clinical activities and diagnostic services provided in the previous calendar year. It is therefore difficult to specify the expenditure budget for the next three years. However, taking into account the increase in income observed over the last three years, together with the expected increase in the tenure and care of pets and horses in Spain, and therefore the general trend of increasing demand for veterinary services in the region, would lead to an increase in the budget allocated to the VTH for the next three years.

2.3.3 Expenditures, investments and revenues decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The FVM Financial Committee is composed by the Head of the FVM, the Manager, the Head of the Economic Service, and the Heads of the Dept/DS. This committee oversees the proposal of the distribution of the ordinary budget and the evaluation of any other source of income, expenditures or investment presented by the Depts to the Faculty Council, which then approves the budget to be implemented. The Dept/DS and the Faculty Council are responsible for communication to staff and students, as well as for the implementation and supervision of the budget, which is managed by the administrative units and the Financial Affairs Section of the FVM. Every year, the Faculty Council approves the annual economic report.

The VTH has a Financial Committee, composed of the Head of the VTH, the Academic Secretary of the VTH, the Manager, the Head of the Economic Service and the Directors of the Service Areas; this committee decides, communicates and evaluates how the budget is distributed according to needs. The decisions of the VTH Financial Committee are periodically reported to the VTH Council and communicated to the Services and Areas by the Academic Secretary and implemented by the VTH Manager.

Any expenditure exceeding the ordinary budget must be extraordinarily submitted to the Financial Committee of the UCM to be approved. The Rectorate decides the infrastructure projects to be carried





out and charged to the UCM Annual Investment Plan, as well as the repair, maintenance or safety works which must be undertaken because they are strictly necessary or urgent. A prioritised proposal of works needed by the FVM is sent to the UCM Rectorate on an annual basis. Final decisions are made after the evaluation of the requests from all the Centres, depending on budget availability.

Over the last three years, the VTH has received significant extraordinary funding from the Rectorate, primarily for two major purposes. The first allocation was an investment for the repair of the roof and floor in the central courtyard of the large animal area ($200,000.000 \in$), which had been severely damaged by a storm. The second substantial allocation was $1,500,000 \in$ for acquiring a high-end CT scanner, designed for use with both small and large animals and includes a specialised platform, and $1,089,592.79 \in$ for air conditioning in the operating rooms at the VTH.

Similarly, the FVM has also benefited from significant financial support, especially through the Resilience and Digital Transformation funds (EU Next Generation). Between 2021 and 2023, a substantial amount of $58,416.65 \in$ was allocated for computer and audiovisual equipment. Additionally, $105,251.85 \in$ were dedicated to the acquisition of simulators. Moreover, the FVM saw substantial investments in infrastructure and equipment, including $336,904.68 \in$ for the electrical refurbishment of the Animal Health facility. Additionally, up until 2020, the Dept/DS received a specific additional endowment, which in that year totalled approximately $30,000,000 \in$.

Comments on Area 2

While the UCM recognises the distinctive needs of the FVM due to its extensive and unique infrastructure, there is often an underestimation of the high costs associated with the Veterinary Degree compared to other programmes. Our university is constantly striving to better reflect these needs in its extra budget allocations. The FVM faces constraints in financial autonomy, especially concerning equipment. Significant investment in large and medium-sized equipment depends on specific university funds or external resources obtained through competitive bids for national or regional government grants dedicated to scientific infrastructure or research projects. Infrastructure investments, encompassing buildings, facilities and renovations, are managed at the central level. The FVM actively participates in this process, annually submitting requests for maintenance work, which are then processed by the University's Directorate of Works and Maintenance.

Despite this involvement, the FVM's expansion and improvement capabilities are limited due to strong reliance on UCM funds. The main challenge lies in the low degree of financial autonomy and excessive centralisation in decision-making processes for university services, including teaching, research, and management. The high costs of the Veterinary Degree, driven by substantial practical training requirements and the upkeep of specialised facilities such as the VTH, TF, and PP, underscore the need for additional funding. The high experimental grading of the Degree requires further financial support, similar to that received by the Medicine Degree from the Public Health System.

Additionally, researchers and coordinators of Diagnostic/External Services advocate for a reduction in the percentage of income withheld by the university, particularly for research projects. Optimising human resources and research infrastructure can be challenging due to management complexities, such as intricate processes and a high bureaucratic burden. The lack of specialised administrative support for research management and fundraising has a noticeable impact on the effective use of resources.

A significant investment has been made in the VTH during the last 3 years in the renovation of equipment (e.g. imaging, anaesthesia and surgical equipment) with great effort, since it has mainly come from the VTH budget. However, direct support from the Rectorate has been necessary for the acquisition of high-cost advanced equipment (CT and platform), and it is hoped that in the future it will be necessary to maintain a potential extraordinary investment for the renovation of large equipment. On the other hand, funding for specialised clinical staff to add their expertise to the VTH is scarce, as it is necessary to be able to count on clinical staff who are not academic staff. In this sense,





although the Rectorate has made an extraordinary contribution at the end of 2023, it is necessary to continue with an economic contribution to attract clinical talent to the VTH.

Suggestions for improvement on Standard 2

Allocating sufficient funds for capital expenditures would be desirable to ensure timely updating and renovation of buildings and infrastructure, thereby preserving the university's legacy. Given the reliance of UCM on public funding and its consequent adherence to the Contractual Programme with the regional government, options for significant modifications are somewhat constrained. Nonetheless, our principal recommendations include a revision of the current model for budget distribution among the Centres of the UCM. The FVM advocates for a new budgetary framework within UCM, one that more accurately recognises and supports the unique characteristics of veterinary education. Improvements to the budget, in line with UCM overall financial plan, that specifically address the funding of essential veterinary training activities and the maintenance of specialised facilities (such as the VTH, TF, PP etc.). There is an ongoing need to update and acquire more advanced equipment, which is critical to maintaining and enhancing our status as a premier VTH for practical student education and training.

As previously mentioned in the suggestions for Area 1, the VTH requires increased autonomy, particularly in aspects such as clinical specialist staff recruitment and financial management, where reliance on central university bodies often leads to procedural delays. Increasing this autonomy would facilitate more efficient decision-making. Moreover, the VTH Council has suggested establishing a dedicated organisational unit or cost centre for clinical activities and university hospitals, aiming for more streamlined and cost-effective operations.

To increase the autonomy of the FVM and the VTH in financial matters, a strategic improvement in external fundraising is essential. We aim to progressively expand and strengthen the generation of income through research projects, collaborations with entities in both public and private sectors, ongoing educational programs, and the provision of direct services to the public. These efforts will be complemented by an elevation in our administrative management capacity. In addition, we are actively exploring the potential of donations as a viable source of external funding, with a focused initiative to engage with corporations and organisations from various sectors for financial support.



CURRICULUM







Standard 3.1: Curriculum

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

The main objective of the Veterinary Degree is to provide students with in-depth knowledge and practical training in the different areas of veterinary practice. The specific objectives are based on the European Directive 2005/36/EC, amended by Directive 2013/55/EU, the current Spanish legislation (Order ECI/333/2008) and the recommendations of the EAEVE. These objectives will be achieved by:

- Acquisition of the necessary knowledge and skills related to the basic veterinary sciences (88 ECTS), such as physics, biostatistics, chemistry, zoology and botany, biochemistry and genetics, anatomy, embryology and physiology, microbiology physiology, microbiology, immunology, epidemiology, pharmacology and toxicology.
- Acquisition of clinical knowledge and skills (113 ECTS) related to the diagnosis, prognosis, treatment and prevention of animal diseases (domestic, experimental, exotic and wild) and zoonoses. Health policy development and risk analysis.
- Acquisition of knowledge and skills in animal production (39 ECTS) relating to the various aspects of control, management and advice for livestock farmers and food production and processing companies and the exploitation of terrestrial, marine or fluvial land, sea or river resources of animal origin.
- Acquisition of knowledge and skills in food technology and safety (24 ECTS) through the study of, among other things, the control of the food chain, understood as a continuous process that goes from primary production to the consumer, guaranteeing traceability.
- The competences acquired during the previous 9 semesters will be applied during the 10th semester of supervised practical training, which will expose students to the realities of the professional world, both internal (21 ECTS) and external (3 ECTS), in the private veterinary sector, public bodies, R&D laboratories, consultancy firms, etc.
- Optional (6 ECTS) the student can acquire knowledge in laboratory animals, exotic animal clinics, aquaculture, veterinary history, the environment or clinical laboratory diagnosis.
- Training in the communication of knowledge, conclusions and results, both orally and in writing, through the preparation of practical or technical work in various fields, review and research: GTh (6 ECTS).
- Acquisition of skills and abilities for continuous training and research in a self-directed way.
- Training for the provision of legal consultancy services to individuals and entities.
- Finally, to acquire the knowledge and skills to carry out their activities in the different areas of the veterinary profession with ethics and rigour.

The current curriculum of the Veterinary Degree was planned according to the corresponding regulations (Area 3) and was verified by ANECA. This programme is implemented through coordination according to a pyramidal system at three levels: Degree Coordination, Course Coordination and Subject Coordination. The system works as follows:

- In February, the Dean's Delegate for Veterinary Degree Coordination, together with the Vice-Dean for Quality Assurance request the Depts for the Subject Coordinator for the following academic year.
- Subject coordinators, along with their teachers, create the schedule for the distribution of each subject, coordinating theoretical and practical teaching, in accordance with the Degree Document approved by ANECA.
- The Degree and Course Coordinators receive every requirement of the subjects and prepare the theoretical and practical timetables.





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- Subject Coordinators distribute teaching among their teaching staff with the approval of the Dept Council.
- The Faculty Council approves the planning of the subject.

The coordination process is carried out both on-line and through a minimum of three face-to-face planning meetings.

3.1.2 Legal constraints imposed on curriculum by national/regional legislations and the degree of autonomy that the VEE has to change the curriculum.

The Veterinary Degree at the UCM is regulated by the European Directive 2005/36/EC, as amended by Directive 2013/55/EU, the current Spanish legislation (Order ECI/333/2008), and the recommendations of the EAEVE. The Degree is included in the Registry of Universities, Centres and Titles (RUCT) of the Ministry of Education, Vocational Training and Universities (Ministry of Education, Culture and Sport), with code No. 2502088.

Since the implementation of the curriculum in 2010-11, the Quality Office of the UCM requests and assesses the annual Self-Evaluation Report of the Degree. In the academic year 2011-12, the Degree was evaluated by the Regional Agency for Quality, Accreditation and Prospective. Since 2015-16, the Degree has been evaluated by the Madri+d Foundation, as a subsidiary of ANECA. The Degree has been accredited by Madri+d Foundation in 2016-17 and 2022-23. Furthermore, the FVM has been evaluated and accredited by the EAEVE on three occasions. To this end, information and improvement proposals will be analysed by the QAS of the FVM. After approval by the Faculty Council, the subject coordinators will adjust the contents and schedule, and changes will be included in the modified syllabus, which as it is mandatory will be submitted to ANECA for verification.

3.1.3 Revision of curricular overlaps, redundancies, omissions, and lack of consistency, transversality and/or integration of the curriculum

The curriculum was assembled under the directives of the subject coordinators for the corresponding programmes, avoiding redundancies and omissions. The CEMGV has surveillance sources that incessantly detect and correct any issues that may arise with the program, detailed in area 1:

- Student representatives and delegates.
- Complaints and suggestions mailbox.
- Satisfaction surveys (Appendix 4.2).
- Teaching follow-up meetings. This is one of the improvements proposed by the FVM's QAS system in 2010-11. These meetings are held in two phases in each academic year, first with the subject coordinators and the second, with students, lecturers, coordinators, student representatives, the CEMGV and representatives of the Dean's Office.
- Regular follow-up meetings with the subject coordinators.
- As part of the QAS, the CEMGV receives all information and monitors all procedures and proposals. To this end, it organises, among other things, meetings with the coordinators of the subjects affected by overlaps, redundancies, omissions and lack of coherence, transversality and/or integration of the curriculum and in order to maintain, strengthen interdisciplinary cooperation and carry out any necessary adjustment.

3.1.4 Core clinical exercises/practicals/seminars prior to the start of the clinical rotations

Since the introduction of the new curriculum, which includes a period of Clinical Rotations, all subjects of the clinical rotations focus on the preparation of this practical training. The problem-solving teaching strategy is enhanced with decision-oriented diagnostics in the field of animal medicine and surgery, through clinical exercises and seminars. In addition, clinical training with healthy animals' cadavers, animal models and computer simulation, is frequently implemented. Clinical learning is staggered and progressive from year 1 to year 5 of the Degree.





In the 1st year, the teaching of veterinary legislation, forensic medicine and certification includes specific training in drafting expert reports and other legal documents related to professional activity.

In Propaedeutics (2nd year), students perform physical examinations on healthy and diseased animals and on animal models, both in small and large animals. Nosology and Pathophysiology include clinical practicals, clinical pathology laboratory where diagnostic and laboratory tests are performed and clinical cases are discussed in seminars. In General Pathology, the students receive practical training in necropsy and histopathology techniques.

During the 3rd, Clinical Pharmacology and Therapeutics provides students with the knowledge of medical treatments through practicals, seminars and computer-assisted techniques involving inductive, deductive and cooperative reasoning. Obstetrics and Reproduction includes seminars and hands-on training with animals and healthy models, including the collection, storage and analysis of biological samples (semen analysis, vaginal cytology, etc.) and clinical activities at the VTH. Radiology and Diagnostic Imaging includes clinical case studies as well as teamwork seminars and clinical activities at the VTH in radiology and ultrasound services.

During the 4th, Special Pathology focusses on necropsy cases with the corresponding histopathology evaluation and complementary seminar discussions. General Surgery and Anaesthesia includes applied seminars, practical work with cadavers/animal models, surgical and anaesthesia simulators to acquire the corresponding techniques. Large Animal Internal Medicine also includes specific seminars, clinical sessions, clinical activities at the VTH and extra-mural training in food-producing animal clinics and in equine medicine. Infectious Diseases and Parasitic Diseases include laboratory practicals, clinical cases and teamwork, and seminars oriented to the diagnosis and treatment of these specific diseases, extra-mural training in food-producing animal farms and clinical activities at the VTH. Obstetrics and Reproduction II provides laboratory practices (including in vitro fertilisation techniques), dystocia assistance, clinical activities at the VTH and specialised centres for reproduction and animal production.

The 5th, before the clinical rotations, Internal Medicine of Small Animals includes seminars for the resolution of clinical cases and clinical activities at the VTH. Preventive Medicine, Health Policy, Zoonosis and Public Health are taught using computer-assisted learning and employing prevention and epidemiological software commonly used in Animal Health and Public Health. Special Surgery includes clinical sessions and practical training on different techniques using animal models/cadavers, clinical activities at the VTH and ambulatory clinics. Additional practical training in orchiectomy/ovariohysterectomy is provided through a "sterilisation programme" in collaboration with Animal Protection and Welfare Associations. Fifth-year students will receive 24 hours of training in Small and Large Animal Emergency Service and Hospitalisation.

3.1.5 Core clinical rotations and emergency services and the direct involvement of undergraduate students in it.

From the 2nd year onwards, students carry out clinical activities at the VTH as part of the program of different core subjects. Students are organised in small groups (5-10 students) for clinical activities at the VTH and the TF facilities under the supervision of teachers of the core subjects. Emergency rotations are carried out at the VTH in groups of maximum 2 students.

The Clinical Rotations last 12 weeks and are scheduled in Semester 10 of the Degree. This Rotation was fully implemented during the academic course 2014-15. The students are required to have passed 70% of the Degree ECTS. The curriculum assigns 15 ECTS to the Clinical Rotations, with 80% onsite learning. Students are distributed into 16 groups with 9-11 students per group. The slight variations depend on the number of enrolled students each year. In many rotations, groups are subdivided in smaller groups for the clinics and activities (maximum 5 students per animal/academic staff). The services included in the Clinical Rotations are:





- Small Animal Medicine. Includes different Specialty Clinics (General Medicine, Internal Medicine and Haematology, Endocrinology, Gastroenterology, Ophthalmology, Dermatology, Oncology, Cardiology, Neurology, Hepatic diseases and Endoscopy) and the Service of Hospitalisation/Emergencies/Intensive Care.
- Infectious and Parasitic Diseases. Includes rotation through the Clinic and through the Diagnosis Laboratory, containing applied preventive medicine activities.
- Small Animal Surgery and Reproduction. Includes Clinics of different specialties (General Surgery/First-opinion, Orthopaedics, Dentistry, Neurosurgery, Reproduction, and Rehabilitation-Physiotherapy) and surgery rooms (soft tissue surgery, orthopaedic surgery, dentistry and ophthalmology).
- Small Animal Anaesthesia (for diagnostic procedures and for surgical procedures).
- Diagnostic Imaging. Includes Radiology, Ultrasound, and CT and MRI.
- Pathology: Necropsies.
- Large Animal Intra-Mural Activities. Include Reproduction of equines and ruminants, Medicine of hospitalised animals, Surgery and Anaesthesia of equines and ruminants, and Equine Rehabilitation and Physiotherapy.
- Large Animal Extra-Mural Activities. With the ambulatory clinic of horses, Ambulatory clinic of ruminants, Ambulatory clinic of reproduction and Ambulatory clinic of swine.
- Herd Health Extra-mural Activities. Includes Small ruminant farms (especially dairy farms, but also for meat production), Dairy cattle, Beef cattle, Egg Layer Hens and Broilers, and Porcine production (sow farm and finishing farm).

An example of the distribution of activities for students during rotations is included in Annex 3.1.5

Most intra-mural activities take place from 9am to 3pm The activities are organised in a way that prior direct patient care, students assist clinical rounds to discuss scheduled or hospitalised patients attended that day. These rounds go over clinical evaluation, differential diagnoses and therapeutic plans, in addition to evaluating scheduled surgical or anaesthetic procedures. Activities end when the last patient is attended.

Extra-mural activities include Large Animal Ambulatory Clinics and Herd Health Visits. Currently, there are 16 ASO in charge of the ambulatory clinic: 8 working in Equines, 7 working in Ruminants and 1 from Swine (this one implemented in recent years to reinforce teaching in this species). There is a maximum of 2 students per teacher. The University has made an effort to increase the number of ASO hired for the ambulatory clinic, which has enabled the diversification of activities and maintenance of the teacher: student ratio despite the increase in the number of enrolled students. Students are picked-up by the clinician at the FVM or at an agreed meeting point. Usually, teachers use their own private vehicles. Equine and Ruminant ambulatory clinic is mandatory while students with a particular interest in Swine are selected to retake the activity for Swine ambulatory clinic. Students attend scheduled equine or ruminant cases and emergencies and visit pig farms when pertinent with the ASO. Students are actively encouraged to assist medical, surgical and obstetrics cases and learn a multidisciplinary approach to herd health.

Regarding Herd Health, each student rotates through 5 farms of different species for Preventive Medicine and Herd Medicine training: Small ruminant, Dairy cattle, Beef Cattle, Poultry farm and Porcine production farm.

All students, at the end of their studies, have performed at least 24 h of emergencies at the VTH (12 h of small animals and 12 h of large animals). This activity is mandatory and was implemented to address one of the deficiencies reported in the 2017 evaluation.

All the information about the Clinical Rotations, including the schedules, ethical and student behaviour standards, biosecurity and welfare rules, and responsibilities, is accessible in the VC.





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A summary of the hands-on activities, responsibilities, and written reports is found in Area 5 (5.3).

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

All students acquire skills and competences in Food production, Safety, and Control in: Food Technology (3th), Food Hygiene, Inspection and Safety (4th), Preventive Medicine (5th), and in Food Hygiene, Safety and Technology Rotation (5th). The content and schedule of these subjects are designed to fulfil the concept "From Farm to Fork". Students gain specific knowledge to understand the chemical, biochemical, microbiological, and safety aspects of food for human consumption, especially food of animal origin. They undergo training in the microbiological and biochemical basis of food spoilage and preservation, unit operations and equipment involved in food processing, as well as safety, technological, nutritional and sensory properties of food throughout the food chain.

The practical training corresponding to the subject Food Technology includes: 1) Complete manufacturing process of dry-cured sausages (*chorizo*), yoghurt, and vegetable canned products (green beans), 2) Calculation of heat treatment parameters for the manufacture of canned foods; 3) Methods of heat treatments control based on the inactivation of enzymes (milk pasteurisation); 4) Instrumental and sensory techniques commonly applied in the food industry: water holding capacity, rheological analysis, and sensory analysis; and 5) Study of the functional properties of food ingredients, such as hydrocolloids.

The practical training corresponding to the subject Food Hygiene, Inspection and Food Safety includes: 1) Laboratory and desk-based work, in which each student (group size 15-20 students) engages in two comprehensive 8 h trainings focused on the practical application of HACCP principles and the agri-food certification and 2) Training stays in small groups (2-3 students) in slaughterhouses and food premises (5 x 4.8 h; two in Slaughterhouses, one in Fish and meat/fruit central market and two in Food service and catering establishments, for training in pesto control systems and consultancy in food quality and food safety systems. These facilities are in Madrid or its surroundings, and the students go by public or private transport (a complete description of these facilities is given in Annex 3.1.6a). All the visits are supervised by ASO who work in each of these fields of specialisation.

Food Hygiene, Safety and Technology Rotation takes place in the PP and in the adjacent laboratories. Students develop the specific skills acquired in previous years in the field of Food Hygiene, Safety and Technology. For 2 weeks, each student reproduces, at pilot scale, the production and preservation processes of different foods of animal origin, simulating the activities occurring in the food industries. The objective is to take a step further, beyond a student perspective and into a professional approach, to the main hygienic and technological aspects involved in the food manufacturing processes, and also to apply different analytical techniques used by food business operators and official laboratories to control FSQ. During this Rotation, students also visit food industries and food quality control centres and attend seminars/lectures taught by industry professionals. Special importance is given to the oral and written integrative discussion of all the results obtained by the students in each activity.

Details of these rotations are specified in Annex 3.1.6b

3.1.7 Selection procedures of the Electives by the students

The Curriculum includes 6 elective ECTS that can be obtained by participating in diverse scientific, sports or cultural activities. Many students fulfil these credits through the Collaborator Student Program of the VTH and of the Dept/DS, or by participating in the National Congress on Undergraduate Research in Health Sciences, in which the participation of FVM students stands out. The curriculum also includes six optional subjects (3 ECTS each) with limited spaces, but sufficient for the demand (35 per subject), reason why, to date, students have been able to enrol in the desired subject. If the demands exceeded availability, the selection criteria would be by order of enrolment.





Academic years	A	В	С	D	E	F	G	H	J
Year 1	411.5	23	734	229	8	0	0	64	1,469.5
Year 2	425	25.5	720.5	175	0	87.5	0	60.5	1,494
Year 3	424.5	10	799.5	136	22	60	0	48	1,500
Year 4	486	0	677.5	76.5	24	186	0	37	1487
Year 5	261	0	547.5	86.5	0	455.5	57	33	1,440.5
Totals	2,008	58.8	3,479	703	54	789	57	242.5	7,391

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

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work, E: non-clinical animal work; G: clinical animal work; G: EPT; H: others (specify -e.g. GTh); J: total * An academic year may be subdivided into 2 semesters

Table 3.1.2. Curriculum hours taken by each student

Subject	Α	В	С	D	E	F	G	Н
Basic subjects	-	-	-	-				
Medical physics	16	8	38	8			5	75
Chemistry (inorganic and organic sections)	20		37.5	14			3.5	75
Animal biology, zoology and cell biology	20		37.5	14			3.5	75
Feed plants and toxic plants	14	3	43	12			2	74
Biomedical statistics	16	8	38	8			5	75
Specific veterinary subjects								
Basic Sciences								
Anatomy, histology and embryology	143		300	127			28.5	598.5
Physiology	97		150	49			4	300
Biochemistry	64		100	28			8	200
General and molecular genetics	45		75	23	1		6	150
Pharmacology, pharmacy and pharmacotherapy	37.5		87	20			5.5	150
Pathology	95		120	12		46	23	296
Toxicology	34		68	21				123
Parasitology	38	9	51	24			3	125
Microbiology	60	7.25	98.25	22			1.5	189
Immunology	28	4.25	41.25	12			0.5	86
Epidemiology	22,5	5	39	6			2.5	75
Information literacy and data management			116	7			4	127
Professional ethics and communication	7				2			9
Animal health economics and practice management	1			8				9
Animal ethology	13		24		2		1	40
Animal welfare	14		21		3			38
Animal nutrition	54		125	36	4		4	223
Clinical Sciences in companion animals (including	equine a	nnd exot	tic pets)					
Obstetrics, reproduction and reproductive disorders	65		66.5	14		19.5	6.5	171.5
Diagnostic pathology	28		40			26	4	98
Medicine	116		140	2		86.5	13.5	358
Surgery	73		45	3		27	8.5	156.5
Anaesthesiology and analgesia	10		15	3		7	2.5	37.5
Clinical practical training in common companion animals			56			236		292





Subject	Α	В	С	D	E	F	G	H
Infectious diseases	54.5		64.5	16		27	3	165
Preventive medicine	5		7.5	0.5			0.5	13.5
Diagnostic imaging	43		38			12	4	97
Therapy in common companion animals	15.6		1.95	7.8		11.7		37.05
Clinical Sciences in food-producing animals (includ	ling Ani	mal Pro	duction a	and Her	d Healt	h Mana	igement	t)
Obstetrics, reproduction and reproductive disorders	51		53.5	7		10.5	6.5	128.5
Diagnostic pathology	28		40			13	4	85
Medicine	46		60	3		26	7	142
Surgery	13		65	4		28	8.5	118,5
Anaesthesiology and analgesia	9		15	4		7	2.5	37.5
Clinical practical training in common food-producing animals			14			60		74
Infectious diseases	125.5		153	24.5		53	4	360
Preventive medicine	60		60	16			2	138
Diagnostic imaging	24.5		22			3	3.5	53
Therapy in common food-producing animals	8.4		1.05	4.2		6.3		19.95
Animal Production, including breeding, husbandry and economics	114	18	309	74.5	6	12	16	549.5
Herd health management	47		87			11.5		145.5
Veterinary Public Health (VPH) (including Food S	afety an	d Quali	ty)					
Veterinary legislation including official controls and regulatory veterinary services, forensic veterinary medicine and certification	29		38	11	14	20	3	115
Control of food, feed and animal by-products	46		99.2	18.25	9	20	3.5	196
Zoonoses and their prevention	15		17	7			0.5	39.5
Food hygiene and environmental health	37		80.3	18.25	9	20	2	166.55
Basic food technology	60	5	158	63			2	288

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

Note: Subjects linked to Professional Knowledge (including soft skills, e.g. communication, team working skills, management skills) are incorporated within the subcategories and include inter alia Information literacy and data management, Professional ethics and communication, Animal health economics and practice management, Clinical practical training in common animal species, Herd health management and Veterinary legislation.

Table 3.1.4 Curriculum days of Elective Practical Training (EPT) for each student

	8 :	
Subjects	Minimum duration (weeks)	Year
Production animals (pre-clinical)* Companion animals (pre-clinical)* Production animals (clinical)* Companion animals (clinical)* FSQ & VPH* Others*	60 hours**	5

*The student can select the subject of Elective Practical Training among all the possible subjects related to the studies. The proposal is approved by a Committee of External Practical Training (Standard 3.5 and 3.6) **The total duration of the EPT is a minimum of 60 hours, distributed as agreed by the student and the external entity

Table 3.1.5. Optional courses proposed to students (not compulsory)

	~ ~			/				
Subjects	Α	В	С	D	E	F	G	Η
Aquaculture and Fish Diseases	20			22			3	45
Animal Welfare in Scientific Studies	9	15		4			2	30
Professional Culture, History and Veterinary Identity	13	9		6			2	30
Clinical Medicine of Exotic Pets,	18		3	1	4	15	4	45
Clinical Diagnosis by Laboratory	18					22	5	45
Veterinary Sciences and Environment	12	3		12			3	30

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work, E: non-clinical animal work; F: clinical animal work; G: others (specify); H: hours to be taken by each student per subject group





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

Types	List of clinical rotations (Disciplines/Species)	Weeks	Year
Intra-mural (VTH) *			
Small Animal Medicine	Clinics of: General Medicine, Internal Medicine and Haematology, Endocrinology, Gastroenterology, Ophthalmology, Dermatology, Oncology, Cardiology, Neurology, Hepatic diseases, Endoscopy, Exotic Pets. Hospitalisation/Emergencies/intensive Care	2	5
Small Animal Infectious and Parasitic Diseases	Clinic and applicate preventive medicine; Diagnosis Laboratory	1	5
Small Animal Surgery and Reproduction	Clinics: General surgery/First opinion, Orthopaedics, Dentistry, Neurosurgery, Reproduction, Rehabilitation-Physiotherapy. Surgery rooms (soft tissue surgery, orthopaedic surgery, dentistry, ophthalmology)	2	5
Small Animal Anaesthesia	Anaesthesia for: Diagnostic procedures, Surgical procedures	0.8	5
Diagnostic Imaging	Radiology, Ultrasound, CT and Magnetic Resonance Imaging (MRI)	1	5
Necropsies	Necropsies	0.8	5
Large Animal Area (intra-mural activities)	Reproduction of equines and ruminants, Medicine of hospitalised animals (occasionally, ambulatory clinic) Surgery and anaesthesia of equines and ruminants Equine Rehabilitation and physiotherapy	2	5
Ambulatory clinics			
Large Animal Ambulatory Clinics	Ambulatory clinic of horses, Ambulatory clinic of ruminants, Ambulatory clinic of reproduction	1.2	5
Herd health (extra-mural activities) *	Small ruminants farm (specially, for milk production, but also for meat production), Dairy cattle farm, Beef cattle farm, Poultry farm, Porcine production farm	1	5
Emergencies			
	Small Animal Emergencies, Large Animal Emergencies	0.2	3/4/5
FSQ & VPH			
Visits to slaughterhouses and food industries	Slaughterhouses, Fish/meat/fruit/central markets Reference official laboratories, Food industries/central kitchens (in hospitals or catering companies)	1.4	4/5
Hazard Analysis and Critical Control Point (HACCP), and agri-food certification	HACCP design, implementation, and validation Training in Global Food Safety Initiative Standards	1.6	4
Food Hygiene, Safety and Technology Rotation	Work in the PP	1.6	5
Optional			
Aquaculture & Fish Pathology	Visit to external facilities: fish farm, Xanadú Aquarium and Zoo- Aquarium	0.6	5
Clinical Diagnosis by Laboratory	Work in clinical pathology cases and in laboratory	2.2	5
Clinical Medicine of Exotic Pets	Clinical rotation in exotic pets	0.6	5
Professional Culture, History and Veterinary Identity	Visit to the Veterinary Museum and Historical Museum	0.4	5
Veterinary Sciences and the Environment	Visit to external facilities (pig farms and hunting ground)	0.4	5
Animal Welfare in Scientific Studies	Visit to external facilities (Animalarium)	0.2	5
Others			
Animal Production Rotation	Planning of farming activities, using animal management techniques, animal hygiene, animal feeding, animal welfare and animal husbandry, Technological processes, reproductive procedures and replacement planning based on production goals, Identification of animal feed raw materials, Quantitative and molecular genetics in breeding and conservation programmes	2	5
Practical activities in TF	Sampling, Facilities and farm management Animal handling	0.4	3/4
Rotation as Collaborator Student (Elective credits)	Student Collaboration Programme in Clinical Services of the VTH	8	3/4/5

*Only weeks taken during the Clinical Rotation (5 course) are included. From the 2nd year onwards, students carry out clinical activities at the VTH as part of the program of different core subjects. In these practices, students go in small groups (5-10 students) to the VTH facilities to perform clinical activities under the supervision of teachers of the core subjects.





See the Curriculum Diagram in Appendix 6.1 for details.

3.1.8 Procedures used to ascertain the achievement of each core practical/clinical activity

The evaluation procedures depend on the requirements for each subject. DOC for practical/clinical activities were defined for compulsory subjects by the coordinators and gathered for the document of compliance for DOC described in Appendix 2.2

The FVM designed a logbook (Annex 3.1.8) that records the acquisition of practical skills of each student in the Clinical Rotation, Animal Production Rotation and Food Hygiene, Safety and Technology Rotation, supervised by the corresponding teachers. This logbook is reviewed and updated every 3 years ensuring that all DOC are adequately addressed. The future plan is to provide this logbook from year one to evaluate the acquisition of clinical skills throughout the Degree and not just during the practice rotation. In addition to the logbook, students on Clinical Rotations receive an attendance timetable with the daily activities that must be signed by the teachers. The teacher evaluates and grades the acquired knowledge, technical skills, attitude and behaviour by answering a questionnaire that will comprise 60% of the grade in most activities; 20% in activities related to Herd Health.

The student must also hand in a clinical report on a selected patient/group of patients attended by them showing their personal discussion and research on the case. For Herd Health, students must present four written reports, proposed by the teacher, regarding biosecurity procedures of a specific farm or production unit, the design of a Health Herd programme or a business data analysis. In summary, at the end of the Clinical Rotation, each student must present 10 written reports (11 in the current academic year 2023-24), which are evaluated by the corresponding clinician and subject to 40% of the grade in most cases, and 80% of the grade in Herd Health Rotation.

The Ambulatory Clinic requires students to complete a form after each outing indicating the number of facilities visited and the specific practical skills developed. This feedback is used to evaluate the quality of the activity and ensures the detection and resolution of deficiencies.

Evaluation of the EPT is addressed by the assigned Committee and is based on the internal and external tutor reports, and any additional information provided. The Committee also requests QA satisfaction surveys from the students, external entities and internal tutors.

Standard 3.2: Objectives

The main <u>objective of the Degree in Veterinary</u> Studies is to provide comprehensive training and skills required for the veterinary profession, including the knowledge of the structures, functions, and behaviour of healthy animals, individual and community clinical activities, with a special focus on transmissible disease; preventive medicine; technology and food hygiene; and the implementation of improvements in animal production, in accordance with the legislation, regulations, and administrative provisions that govern it. More extensively, the objectives are defined in the RD 1837/2008, of November 8, which incorporates Directive 2005/36 into the Spanish legal system. Article 51 of this decree specifies the knowledge that will shape the graduate's profile, based on European Directive 2005/36/EC (as amended by Directive 2013/55/EU), the Spanish legislation in force (Order EC1/333/2008) and the EAEVE recommendations.

The <u>QA Committee</u> is responsible for monitoring the internal QAS of the degrees offered at the FVM, managing and coordinating all aspects related to this system. The Degree Coordination and Quality Vice-Deanship request Teaching Sheets from the subject coordinators, which provide prerequisites for the subject, general objectives, general, specific, and cross-cutting competencies, theoretical and practical thematic contents, teaching methods, evaluation criteria, and recommended bibliography, among others. This information, along with the course schedule, is compiled in the teaching guides and approved by the Faculty Council. An annual Teaching Follow-up Report is also elaborated and





approved by the Faculty Council first and then by the Quality Vice-Rectorate.

Students are mentored on the importance of life-long learning in the profession from the first day they arrive. The FVM strongly transmits the idea that the Veterinary Profession is dynamic, constantly changing and evolving, due to ongoing research, the emergence of new diseases, and the development of new techniques and treatments. Throughout the years of training, students are made aware of the changes in legislation, the introduction of new drugs, the discovery of innovative techniques, which convey to the student the message of the essential need for continuous education. By the time they reach the final year, they are fully aware of the necessity to continue learning throughout their lives, as the chosen profession demands it.

Standard 3.3: Programme learning outcomes

Firstly, the curriculum is structured to incorporate the key competences outlined by the European System. From the outset, students are exposed to a curriculum that reflects the evolving nature of the veterinary profession, emphasising the acquisition of essential skills and knowledge expected on the first day of professional practice. The FVM places a strong emphasis on continuous evaluation and feedback mechanisms. Regular assessments are designed to gauge students' progress in acquiring the required competences, ensuring they will meet DOC upon graduation (Appendix 2.2). This iterative process allows for timely identification of areas that require reinforcement. In addition to traditional classroom instruction, the curriculum integrates practical experiences, clinical rotations, and hands-on training. This experiential learning approach is instrumental in bridging the gap between theoretical knowledge and practical application, preparing students to meet the demands of the profession as outlined by the European System.

Furthermore, FVM engages in ongoing dialogue with stakeholders, including professionals from the veterinary field, to stay on top of industry advancements and changes in practice. This collaborative approach helps in fine-tuning the curriculum to align with the latest developments in veterinary science and ensures that graduates are well-equipped with the competences expected on their first day of professional practice.

Overall, the FVM is committed to maintaining a curriculum that not only meets but exceeds the standards set by the ESEVT and DOC, providing students with a solid foundation for successful entry into the Veterinary Profession.

Standard 3.4: Committee structure

As detailed in Standard 3.1, the UCM Veterinary Medicine curriculum complies with the national and international regulations that establish the curricular conditions leading to the qualification for the practice of the veterinary profession. This regulation reviews the requirements for the Veterinary Degree and monitors the pedagogical bases, design and coherent methodologies applied in the curriculum. These bases and methodologies are carefully evaluated, organised and applied by the VEE's Competent Authorities and relevant staff in order to conform to the degree, as specifically detailed in Standard 1.2. The QA of these methodologies is carefully and regularly monitored as detailed in Standard 1.4 and again in 3.1.

All veterinarians in Spain are governed by the same regulations enforced by the CVD, which aim to provide homogeneity and coherence to the veterinary curriculum applied in the universities and favour the exchange and mobility of students between faculties and regions. As required, the Curriculum was verified by the ANECA (2010) and implemented in the academic year 2010-11.

The procedures for the QA of the degree are described in Area 1 and in 3.1. Since the approval of the Degree, no major changes have been introduced in the annual planning. Minor modifications and improvements are communicated to all parties through meetings and made public on the website media, VC, information screens and social networks. In the academic year 2024/2025, once the





programme has been accredited (and including, where appropriate, the improvements proposed by the assessment agencies), a plan for the revision of the curriculum will be formulated.

Standard 3.5: Elective Practical Training (EPT)

EPT is an obligatory Core Subject of 3 ECTS in Semester 10, Year 5. Students must have successfully completed 70% ECTS of the curriculum in order to enrol in EPT. This subject is organised extramurally and involves students' direct participation in professional undertakings, in a non-academic environment, which enables them to complete and to put into immediate practice the competences and abilities acquired during their regular studies. The students must complete a minimum of 60 hours of practice in external entities linked to Veterinary Science. The EPT is regulated by the <u>Specific Rules</u> approved by the Faculty Council which develops the University's EPT regulations. The EPT is regulated by the <u>EPT Committee</u>, composed of the Dean's Delegate, who will act as Supervisor of EPT, and a representative of each Dept/DS. The Professional Orientation Office, attended by COLVEMA in coordination with the FVM, also collaborates with the EPT Committee, especially in managing agreements with entities represented by members of COLVEMA.

The functions of this Committee are to plan the student needs, offering a wide possibility of collaborating entities, to authorise the EPT of each student in the entities requested by the student, to take part in the evaluation process of the EPT of each student, to mediate and to solve possible conflicts related to the EPT, and to confirm that the external entities have sufficient quality to guarantee a correct learning process.

The Committee publishes on the website and VC a list of external entities with an active agreement that are available to receive students from our faculty. The list is updated every year. Although it is a 2nd semester subject, EPT can be taken during the whole academic year, including vacation periods, which makes it easier for each student to organise their EPT while respecting their mandatory teaching schedules. The students themselves solicit the entity in which they wish to carry out the EPT, by selecting a listed entity with active agreement, or proposing new entities to be included in the agreements. Committee evaluates the proposal and facilitates the agreement if deemed appropriate. Most students can carry out the EPT at the entity of their choice; in certain entities with limited positions regarding student demands, the selection is based on curriculum or/and interviews with the candidates.

An orientation meeting for the students enrolling in EPT and for academic tutors if interested, is held each September. Complete information (regulation, list of entities, application and processing procedure, rules for drafting the final report, etc.) is published and accessed through the VC and <u>website</u>. EPT is managed through the UCM-Integral Management of External Practices (GIPE), a telematic portal which facilitates procedures and communication with all parties involved. Students have an academic or internal tutor (academic staff) who ensures the correct development of the activity and an external tutor from the selected entity, directly responsible for the training of students. This tutor must issue a final report evaluating the attitude and the training received (see standard 3.6). At the end of the EPT period, students must write a report to be graded by the academic tutor (see standard 3.7). The final evaluation is carried out by the EPT Committee, based on the reports of the academic and external tutors.

Students also have the opportunity of carrying out voluntary extracurricular practical training during the Degree. The management of this training also depends on the same Committee. This EPT is subjected to the subsequent mention in the European Supplement to the Degree.

Standard 3.6: The EPT providers

The students can perform their EPT in establishments with which the UCM has signed an Educational Cooperation Agreement (ECA). To date, the FVM has promoted a wide number of agreements (more





than 700) with many national and international entities (Appendix 6.2 and Annex 3.6). The fields of activity of the collaborating entities include veterinary care centres for large and small animals, livestock farming and industries, wildlife recovery centres or zoological centres, laboratories and research institutes, food companies, pharmacy or veterinary nutrition companies, etc.), which cover the different professional opportunities of the Veterinary Degree. The management of ECA is coordinated by the UCM Rectorate (University Service of Practices and Employment [OPE] and Agreement Processing Unit) and allows all Faculties to take advantage of the agreements managed by each Faculty. Hence, veterinary students can benefit from more than 10,000 active ECA.

New places are added every year following student proposals, teachers' suggestions, or by new entities themselves. A major concern is that the ECA accounts for coverage of students with the corresponding accident and civil responsibility assurance for any problems that might arise while the activity is being undertaken. The rights and duties of the students and of the Establishment are stated in the ECA and agree with the regulations of external practices. Such ECA must remain in force and include as a specific annex their educational objectives, the contents of the practical training and the generic competences to be acquired by the student during the training. The student must complete this annex with the specific conditions of the placement (start and end date, number of days per week and hours per day). This document must be signed by all parties (EPT supervisor, academic and external tutors and student) in order for the placement to take place.

The external tutor can contact the EPT supervisor or academic tutor at any time. At the end of the placement period, an evaluation form is sent on-line to the external tutor in which they must specify a brief description of the activities carried out by the student, the total hours of the training period and the mark (poor, acceptable, good, very good) of the student's attitude (punctuality, attendance, integration in the team, interest by the work, creativity and proactiveness, responsibility and adaptation to new environments) and level of knowledge obtained (global acquired abilities, data analysis and interpretation, specific technical abilities, communication skills and use of literature).

Name of the teaching staff(s) responsible for the supervision of the EPT activities: Elena Martínez de Merlo, Dean's Delegate for EPT activities

Standard 3.7: Students responsibility for their own learning during EPT

As mentioned before, the students propose the entity in which they wish to carry out the EPT. In most cases, the entity reflects the student's inclinations and interests. They actively participate in the process, contacting entities with prior ECA or proposing new entities for ECA. Students must enter their specific EPT data in the GIPE software in order to be able to generate the annex mentioned above. This annex is sent to the students by the supervisor and it is up to them to get the tutors' signatures and send it to the registrar's office. Upon assignment, students may contact the academic tutor at any time if they require assistance in the process or have any difficulties. Students undertaking clinical EPT must complete a record for each patient seen (or for each livestock facility visited) using a telematic form available on the virtual campus.

The report the students have to elaborate at the end of the EPT period must include a description of the entity, the activities carried out and a subjective and critical evaluation of their integration in the work team and the knowledge acquired. In addition, this report must include an analysis of the results obtained (presentation of clinical cases, problems solving, etc.) and their critical analysis, using updated bibliography. The students are aware of the EPT model report and the evaluation criteria. The academic tutor assists the assigned students during this training period and gives them guidelines on how to prepare the report. The report includes the student's evaluation on their satisfaction with the EPT and is made available to the academic tutor. Students also complete a survey regarding their satisfaction with the facilities visited and the treatment received, which is used for internal evaluation and improvement of the self-learning process. There is an official procedure for submitting complaints



through the QAS. In specific terms for the EPT, the supervisor is permanently available to receive reports of any incident, suggestion or complaint and is responsible for taking initial action, getting in contact with the entities concerned and the external and academic tutors. At the end of the process, the Committee also requests QA satisfaction surveys to external entities and internal tutors and analyses the results of the surveys to make decisions for a better development of the EPT (Appendix 4.4).

Comments on Area 3

UNIVERSIDAD COMPLUTENSE MADRID

Facultad de Veterinaria

The Veterinary Degree programme at FVM has been designed with a thorough understanding of the current socioeconomic context of the veterinary profession. This approach ensures that graduates are well-prepared for a variety of professional areas, thereby significantly enhancing their employment prospects. A hallmark of FVM's curriculum is its commitment to innovative teaching methodologies. The curriculum employs both theoretical and practical teaching methods, involving a wide range of academics in creative educational activities. A notable enhancement is the introduction of Practical Rotations, which allows students to engage in hands-on practical training, significantly bolstering their practical skills. Additionally, the inclusion of a GTh has improved students' acquisition of various transversal abilities, such as public presentation skills, IT proficiency, and the ability to access specialised information sources, thereby fostering a culture of lifelong learning. FVM recognizes the significance of real-world experience and has therefore increased its emphasis on curricular and extracurricular EPT. These programs offer students direct exposure to the veterinary profession through educational collaboration agreements with private companies, public institutions, and local authorities.

FVM has implemented a QAS that regularly analyses all procedures related to the Degree. This system informs all stakeholders and allows for minor modifications in response to identified issues. Additionally, the presence of a complaints QS mailbox within this system highlights FVM's dedication to continuous improvement and responsiveness to feedback.

Suggestions for improvement on Area 3

The CDV, recognising the need for a more comprehensive veterinary education, has proposed to the Ministry a significant extension of the Veterinary Science Degree programme. This extension, amounting to an additional year (60 ECTS), aims to enhance the educational landscape of veterinary studies in Spain. The primary motivation for this extension is to provide a more balanced and effective distribution of teaching time within the field. A crucial aspect of this revised curriculum is the emphasis on practical training, building upon the positive experiences of the Practical Rotations. The extended duration will not only increase the time dedicated to practical training but will also allow for an enrichment of clinical subject content. Additionally, it will enable the inclusion of new optional subjects and emerging areas in veterinary sciences. This diversification is expected to better prepare students for a range of underdeveloped professional profiles within the field.

The revision of the current curriculum is underway to comply with RD 833/2021, dated 28th September, which outlines the organisation of university teachings and the procedure for assuring their quality.

There is a recognized need to inform and advise students about the full spectrum of professional competencies required of veterinarians.

Looking to the future, there are plans to provide students with a logbook from their first year of study. This initiative represents a commitment to continuous skill development and documentation, ensuring that students can accurately track and demonstrate their competencies throughout their education.



FACILITE







Standard 4.1: Facilities

4.1.1 Location and organisation of the facilities

The FVM is located in the Moncloa Campus of the UCM, in the Northwest area of Madrid, very close to the city centre (Moncloa-Aravaca district) and to the M-30 ring road and the A-6 highway. Both the main Campus and the FVM are readily accessible by public transportation or private vehicles with more than 20 bus lines and 2 nearby metro stations "*Ciudad Universitaria*" (Line 6) and "*Moncloa*" (Lines 3 and 6).

The FVM occupies a total area of 90,528 m^2 and includes twelve different buildings (45,000 m^2) and 45,000 m^2 garden areas and car parks. See Table 4.1.1. and Annex 4.1.1 for details.

Internet access is available for teaching and research in every facility through the UCM Wi-Fi network. All students and staff have free and unlimited access to the Wi-Fi network by means of their UCM credentials (see Area 6). All the facilities comply with the sanitary, biosecurity and accessibility for people with reduced mobility regulations.

Building	Surface	Floors
Main Building	15,908 m ²	6
Pilot Plant for Hygiene, Food Technology and Safety	332,45 m ²	1
Anatomy Building	1,453 m ²	3
Animal Health Building	2,544 m ²	2
Food Science and Technology Building	1,091 m ²	3
Animal Production Building	2,405 m ²	4
Building-A	807 m ²	2
Building-B	2,914 m ²	2
Animal Physiology Building	782 m ²	1
Animal Resource Centre (Animal Physiology)	227 m ²	1
Teaching Farm	18,000 m ²	1
VTH Building	18,648 m ²	3+2
VISAVET	2,000 m ²	1
Veterinary Museum	Facilities in different areas	
Garden/Parks	45,000 m ²	

Table 4.1.1. FVM buildings and facilities

4.1.2 Strategy and programme for maintaining and upgrading the facilities and equipment.

As explained in Area 2, the Financial Committees of the FVM are responsible for the strategy and the budget distribution, approved by different instances. The maintenance, renewal and acquisition of equipment and facilities depend on the budget availability, which, in turn, depends on the endowment assigned to our faculty by the UCM.

In addition, funds from research activities and agreements with companies also contribute to upgrading the FVM facilities and equipment.

As it is mentioned in Area 2, an extraordinary endowment of $2,000,000 \in$ to the VTH has been granted by the Rectorate for upgrading the large animal premises and for the acquisition of advanced diagnostic imaging. In addition, in the 2024 UCM budget there will be an additional line item for the management of the TF. Major investments, such as the building remodelling, air conditioning, etc., are financed directly by the UCM; all the information is provided in Area 2.

4.1.3 Physical facilities comply with all relevant legislation

The buildings and premises of the FVM and the VTH are periodically subdued to biosecurity protocol maintenance including: fire and emergency action protocols, disinfestation and pest control protocols and technical inspection. The revision and maintenance protocol of the VTH Radiological Facility meets all the requirements of the Nuclear Safety Council.





The removal of carcasses and other animal waste is carried out by the company SECANIN (SecAnim Bio-Industries, S.A.U.) complying with the regulations of the Ministry of Agriculture, Fisheries and Food for the Management of Animal By-Products not Destined for Human Consumption and Products Derived from Them (SANDACH).

The use of animals for experimental and educational purposes is governed by the Spanish Directive 2010/63/EU (RD 53/2013), safeguarding animal use in such activities. All related procedures require approval from the <u>Establishment's EAWC</u>, the UCM Ethics Committee, and authorisation by the competent autonomous authority, the CM (see Area 5).

Standard 4.2. Teaching facilities

-) Premises for lecturing: are distributed in various buildings. The total number of places is 1594.

Halls	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Places	70	70	256	208	208	208	112	117	101	54	28	30	32	30	70
Name*	A4	A8	B1	B2	B3	B4	H1	H2	H3	AI1	AI2	AI3	VTH- PG	VTH- MR	TF
Surface (m ²)	100	101	259	255	226	228	135	136	131	113	62	56	99.4	99	56
Equip.**	WA/M/ W	M/W	AC/WA /M/W	AC/WA M/W	M/WA /W	M/WA /W	M/WA /W								

*FVM facilities. AI=Computer classroom; **Equip: Equipment, AC: Air conditioning, WA: Wheelchair accessible, M: Media, W: Wi-Fi coverage

-) Premises for group work: are distributed in various buildings. The total number of places is 352.

Halls	1	2	3	4	5	6	7
Places [*]	25-50-75	25-50-75	62	50	20	20	50
Name ^{**}	A1 + A2+ A3	A5 + A6 + A7	A9	A10	A11	A12	VTH-SR
Surface (m ²)	35	38	81.94	67	80	80	119
Equip.***	WA/M/W	M/W	AC/WA/M/W	AC/WA/M/W	AC/M/W	M/W	M/W/WA

^{*}Movable partitioned lecture rooms (25-75 places); ^{**}Name displayed at the FVM Facilities; ^{***}Equip: Equipment: AC: Air conditioning/WA: Wheelchair accessible/M: Media/W: Wi-Fi coverage

All classrooms and seminars are properly provided with audiovisual equipment; videoconferencing, video recording and streaming equipment is available in classrooms with the highest capacity. The necessary software is available in the computer classrooms, as explained in Area 6.

-) Premises for Practical work: Maps of the facilities are provided in Appendix 3. The total number of places in rooms for practical work is 568.

Depts//DS	No. of practical rooms	Places for practical work
DS Nutrition and Food Science	4	62
DS Galenic Pharmacy and Food Technology	3	61
DS Pharmacology and Toxicology	2	10
DS Physiology	2	38
DS Anatomy and Embryology	3	50
DS Biochemistry and Molecular Biology	1	24
Pilot Plant	3	62
Dept Animal Medicine and Surgery (clinical rooms are excluded)	6	91
Dept Animal Production (including TF Laboratories)	10	108
Dept Animal Health	4	62

Detailed information on the official accreditations and appointments of diagnostic laboratories, including tests for animal health and agri-food microbiology can be found at following <u>link</u>.

-) Premises for skill labs: The Animal Medicine and Surgery Dept, located at the VTH, possesses devices and dummies for simulations. In Propaedeutics, ear exploration models, urinary catheterisation of female dogs, a cat model for various exploratory techniques, two canine front legs for intravenous trainer, a critical care dog model, the head of a horse for blood extractions, and a calf for techniques and blood sample collection are used. For Surgery and Anaesthesia, there are 2 simulators for





bandaging (dogs), 4 for intubation (two of them suitable for dental techniques), and 2 dog simulators for emergency treatments, along with different suture pads. In Obstetrics and Reproduction, simulators of mares and cows are used to explore their reproductive systems. There is also a mare for exploring the digestive system and treating colic and a cow for practising birth assistance and resolving dystocia.

-) Premises for study and self-learning: The library has 178 places distributed among 7 rooms of different sizes. See Area 6 (6.1) for a full description of the library facilities. Common spaces for student group work have been upgraded in addition to the library.

-) Premises for food service facilities: The FVM has a large cafeteria located in Building-B, with 200 seats and an outdoor terrace. Vending machines are available in the lobby and the resting area of the VTH, and in the hall of the FVM Main Building. There are also 2 dining rooms for staff and 2 microwave areas (in FVM and in VTH). The garden and premises of the FVM and VTH have been provided with wooden picnic tables and seats for students and staff.

-) Premises for locker rooms and sanitaries: There are toilets and washing facilities on every floor of every building (total of 54). There are 6 locker rooms at the FVM, 6 at the VTH and 1 at the TF, including shower rooms.

-) Premises for accommodation for on-call students: The VTH has 4 apartments for staff and students on-call; it also has 2 rest rooms in the small and large animal hospitalisation areas.

-) Premises for leisure activities: The <u>sports facilities of the UCM</u> are integrated by 5 complexes, with complete infrastructure for the practice of rugby, football, volleyball, beach volleyball, handball, basketball, indoor football, tennis, paddle, gyms, and indoor and outdoor swimming pools, among others; and a vast offer of sport schools/clubs. The FVM also has facilities for cultural activities (Auditorium, Graduates Lecture Room, Meeting Room, etc.), 7 rooms for student associations and indoor and outdoor rest areas.

-) Staff offices and research laboratories: Academic and support staff offices are distributed throughout the Depts/DS and Central Administrative Services in FVM buildings, VTH and TF. There are approximately 235 offices and 120 research laboratories with more than 300 places for researchers, sufficient for the needs of the academic and support staff for teaching and research activities.

Standard 4.3: Livestock facilities, animal housing, CCT facilities and equipment

		Species	Number of places
	Cattle	6 individual boxes, 2 calf hutches	
		Equine	34 distributed as follows: 10 in VTH-Room no. 1 (Medicine), 10 in VTH- Room no. 2 (Surgery), 8 in VTH-Room no. 3 (Reproduction), 2 isolation and 2 places in IC
		Small ruminants	10 in 2 fenced areas in the ruminant room in the VTH
Regular hospitalisation	Regular	Pigs	6 pig cages
	Dogs	11 in cages, 5 in large/giant dog boxes and 2 cages and 2 boxes in the acoustically isolated room	
	Cats	13	
	Other: Exotic animals	8 terrariums + 5 aquariums for reptiles, 16 bird cages, 18 cages for rabbits, guinea pigs, ferrets, and hamsters (most of them can be divided to house several very small individuals)	

-) Premises for hospitalised animals

In addition, there are premises for isolated hospitalisation for small animals, equine and ruminants (see section 4.6).





	Animal Physiology	Animal Production	Animal Health	VTH	TF	VISAVET	Total
Authorised Species							
Rodents	Х	Х	Х			Х	4
Rabbits	Х		Х	Х	Х	Х	5
Dogs	Х		Х	Х		Х	4
Cats			Х	Х		Х	2
Small Ruminants			Х	Х	Х	Х	4
Cattle			Х	Х	Х	Х	4
Equines				Х	Х		2
Swine			Х	Х		Х	3
Exotic pets and wildlife				х			1
Poultry					Х	Х	2
Apes						Х	1
Bee					x**		1
Control systems				1			
Temperature	Х	Х	Х	Х	Х	Х	6
Humidity	Х	Х	X	Х	Х	Х	6
Light-Dark Cycles		Х	X		Х	Х	4
Fire	Х		Х	Х		Х	4
Facilities				T	F		
Quarantine		Х		Х		Х	3
Laboratory	Х			x*	Х	Х	4
Surgery Room	Х			x*			2
Necropsy Room	Х		Х	x*		Х	4
Storeroom	Х	Х	Х		Х	Х	5
Cleaning Room	Х	Х	Х			Х	4
Locker Room	X		X		Х	Х	4
Level 3						Х	1

-) Premises for healthy animals: Species, facilities and basic environmental conditions for animals used for scientific or educational purposes are in compliance with RD 53/2013 and EU Directive 63/2010.

* The clinical facilities of the VTH are also available for animals used for scientific or educational purposes. **This recently created unit is located in the town of Hoyo de Manzanares, with Livestock Establishment Registration Number (REGA): ESES280720000058, with Hive Identification Code 72M58. It currently has 12 hives.

The 3 main buildings are equipped with housing and allocations for animals used for teaching.

- Horses: At the VTH (capacity 10/holds 5-10) and at the TF (capacity 48/housed 3-10), used for Reproduction and Obstetrics, Propaedeutics, Diagnostic Imaging, Clinical Rotation, Basis of Animal Production I and Postgraduate Courses.
- Cattle: At the VTH (capacity 10/holds 0-3) and at the TF (capacity 45/ holds 0-30), used in Reproduction and Obstetrics, Propaedeutics, Diagnostic Imaging, Clinical Rotation, Postgraduate courses.
- Small ruminants: At the VTH (capacity 30-40) and at the TF (capacity 100-150 permanent + 80-210 temporary small ruminants/holds 45-60 animals, used for Basis of Animal Production I, Animal Production.
- Dogs: At the Animal Physiology premises (capacity 30/holds 10), for Physiology, Laboratory Animals and Postgraduate courses; at the VTH (capacity 40/holds 10), for Propaedeutics, Reproduction and Obstetrics, Animal Medicine and Surgery and at the TF (capacity 30-40/holds 0), used for Breeding and Animal Production I, Postgraduate courses.
- Poultry: At the TF (capacity 90 laying hens + 480 broilers/holds 50 laying hens + 300 broilers) used for Animal Production Rotation.
- Rabbits: At the Physiology premises (capacity 50/holds 20) for Physiology, Laboratory Animals, Postgraduate courses, and at the TF (capacity 56 does + 84-168 young rabbits/holds





40 does + 8 adult males + 100 young rabbits) for Animal Nutrition, Animal Production Rotation.

- Rodents: At the Physiology Premises (capacity 1,000 rats (or mice) + 40 hamsters (or guinea pigs)/holds 50 mice/rats+10 hamsters) for Physiology, Laboratory Animals, Postgraduate courses.
- Exotic animals: At the VTH (capacity 8 terrariums + 5 aquariums for reptiles, 16 bird cages, 18 cages for rabbits, guinea pigs, ferrets, and hamsters), for Propaedeutics, Medicine of Exotic Animals, Clinical Rotation).

-) Premises for research animals: The animal facilities of the Establishment are under the institution's administrative responsibilities and are managed by qualified animal facility directors in accordance with the law (RD 53/2013). Both, an animal welfare officer, and a veterinarian supervise the welfare and health of animals, following the European and Spanish regulations. At this time our Establishment has 6 animal facilities officially approved for animal research.

-) Premises for clinical activities: Clinical teaching facilities are provided by the VTH that has a 24/7 emergency service for companion animals and equines. An on-call service is available for ruminants. The standard of education and clinical research within the VTH are in compliance with the ESEVT standards.

The VTH provides the core clinical teaching and it is structured as follows:

1. Small Animal Area (lobby, large waiting rooms for dogs and cats, 14-22 consulting rooms: one room for special procedures and another for exotic animals, 5 surgery rooms and area for regular hospitalisation, emergencies and intensive care). Other rooms for specific procedures are retinography and electromyography (1), oncology (2), and isolation area for small animals (1) (see standard 4.6).

- **Small Animal Internal Medicine Service:** includes first-opinion consultations (2 rooms) and specialty consultations: ophthalmology, dermatology, neurology, oncology, hepatic diseases, nephrology and urology, cardiology, gastrointestinal diseases, infectious diseases, internal medicine, endocrinology and nutrition.
- Small Animal Surgery Service: includes consultations and surgery procedures of soft tissue surgery, orthopaedics, neurosurgery, dentistry, stem cells unit and physiotherapy and rehabilitation.
- Exotic Animals Service: includes consultation and waiting room and premises for hospitalisation.
- Small Animal Hospitalisation, Emergencies and Intensive Care Service: It consists in a central room for the reception and management of patients, with access to the clinical history database Qvet®, and 4 smaller rooms that house an office, a living room for clinical staff, a material washing room and a warehouse for food and non-medicinal material. The central room has access to a joint large workroom with cabinets for clinical material and medicines, which in turn opens to the following: an emergency and intensive care procedures room and a special procedures room (dialysis, other procedures), cat hospitalisation room, small dog hospitalisation room and hospitalisation boxes for medium-sized dogs, large dogs and an a special acoustically isolated room for hospitalisation of noisy dogs.

2. The Large Animal Area, it includes facilities for providing large animal veterinary care (internal medicine and intensive care, surgery, reproduction and obstetric, imaging and isolation area), mainly horses and farm animals. There is a large main lounge for walking and examination of lameness in horses, with entry points to 2 offices supplied with computers with access to the database Qvet®, a living room for clinical staff, and a waiting room for owners, in addition to the following facilities:

• Equine surgery room: 10 boxes (2 birthing pen boxes and 1 padding box with pulley) with closing circuit video in some of them.





- Equine Internal Medicine room: 10 boxes (1 padding box for neurological cases) with closing circuit video in some of them.
- Intensive Care room: with 2 boxes (including 1 padding box) and a working area.
- Equine reproduction room: 8 boxes, a semen collection phantom, an examination stock and an equipment preparation room.
- **Ruminants room:** 6 individual boxes, 2 calf hutches.
- **Imaging room:** 1 radiology room.
- Surgery rooms (2).
- Rooms for examination and specific clinical procedures (2), both with examination stocks, one with a weighing scale and the other with a semen collection phantom, equipment preparation room and a laboratory room.
- Local Pharmacy room.

3. The Central Services Area of the VTH comprises different services which are common to the small and large animal areas.

- Anaesthesiology Service for sedations and anaesthetic procedures (exotic, small and large animals); equipped with 4 Anaesthesia Units in the Small Animal Operating Rooms, 2 in the Large Animal Operating Room, 1 in the MR Facility, and 4 Mobile Anaesthesia Units.
- **Diagnostic Imaging Service** performs diagnostic imaging for companion animals, equines, and ruminants. The Diagnostic Imaging Service provides radiology, ultrasonography, fluoroscopy CT and MRI diagnosis for the VTH patients (companion and large animals) and receives referrals from private practices. This facility includes 2 X-ray rooms for small animals and exotic pets, 1 X-ray room for large animals, 1 ultrasound room for small animals and 1 for large animals and 1 MRI and a CT unit for small and large animals.
- **Pathology Service** carries out pathological diagnostics of necropsies and biopsies. This service is equipped with two large Necropsy rooms, a Histopathology Laboratory and a Pathology Diagnostic Room.
- **Clinical Pathology Service** carries out haematological, biochemical analysis and cytological studies. It has 3 different laboratories: one for routine tests, another one for more complex techniques, and the emergency laboratory.
- Laboratory of Microbiology and Parasitology is intended for the diagnosis of infectious and parasitic diseases (bacteriology, mycology, virology, parasitology and immunology).
- **Reproduction Service** offers a full range of techniques from artificial insemination or embryo transfer to in vitro fertilisation in companion and farm animals, aimed to improve the reproduction performance of VTH patients. It includes the evaluation of male and female reproductive function by using a service called Stallion Stud Service. Officially authorised as a Semen Collection and Storage Centre for equine and canine species, complying with all legal requirements necessary for operation.
- **Pharmacy Service/Store** serves as the control of all medicines and drugs, fungible material, instruments, laboratory equipment, sutures and other orders requested by the different services of the VTH. The acquisition and distribution of drugs and clinical material is centralised in this Service, in connection with the VTH clinics and is supplied by the Clinical Services Pharmacy Warehouses.

4. Management. The VTH Management area is divided into four sections: Management, Personnel, Economic Affairs and Patient Administration (appointments/admission/payment).





4.3.5 Equipment used for clinical services

Small Animals Area	
Internal Medicine	Ocular ultrasound, retinography, electroretinography, echocardiography, upper and lower respiratory tract endoscopy, urethrocystoscopy and gastrointestinal endoscopy, 3 blood pressure monitors, 2 electrocardiographs
Surgery Service	Laparoscopy, thoracoscopy, arthroscopy, electrocautery, sealing and cutting device, surgical microscopy, surgical stapling equipment, phacoemulsification unit.
Dentistry	Dental equipment IM3: compressor, 3 tubes with air, light and water. Dental direct digital radiography Kayo
Rehabilitation	Photobiomodulation with class IV KLaser cube performance 4, Chatanoga Ultrasound Therapy device, Capacitive-Resistive Electrical Transfer (INDIVA AH100), pulsating Magnetic Fields, infrared Termotherapy, electrotherapy (TENS+EMS), electroacupuncture, dirt treadmill, cavalletis and therapy balls, Bohler plate
Exotic Animals	Equipment for exotic animal restraint; exotic animal ventilator
Hospitalisation	Ultrasound, haemodialysis, multiparameter monitors, oxygen concentrators, infusion pumps,
Emergencies	warmers, portable oscillometric blood pressure equipment. Videocameras for monitorisation of
Intensive Care	Isolated Units
Large Animals	
	Endoscopy, arthroscopy, holter monitoring, laparoscopy, ligasure, fluoroscope, video cameras for boxes monitorization, glucometer and lactate analyser, infusion pumps, Equinosis Lameness
Central Services	
Anaesthesiology Service	Anaesthetic workstations with ventilator and ventilatory and anaesthetic gases monitoring, gas scavenging devices, multiparameter monitors, infusion pumps, warming devices, ultrasound device, portable doppler blood pressure equipment, neuromuscular monitoring, bispectral index, Deltex cardioO, and Parasympathetic tone activity monitor
Diagnostic Imaging Service	2 X-ray equipment for small animal and exotic pets, 1 multifunctional X-ray equipment prototype with static and dynamic radiography and flat-panel CT functions, 1 X-ray fixed equipment for large animals, 1 X-ray mobile equipment for large animals, 1 computerised radiography system, 4 flat-panel digital radiography systems, 2 ultrasound equipment, one for small animals and other for large animals, 1 low-field MRI system (0.23 Tesla) for small and large animals, and 1 fluoroscopy system for radiological diagnosis and surgical/cardiology/interventional support. A 160 slices helicoidal CT system (currently installation is in progress) for small and large animals with an adapted platform to perform awake large animal CT studies
Pharmacy	Hand-operated capsule-filling machine. Security Medical cabinet. Two refrigerators with temperature monitors. One freezer
Pathology Service	Microscope Multihead (Ten Headed), Dual Viewing Side-By-Side Microscope, one of this with a video camera incorporated, microscope with digital photography system, vacuum tissue processor, grossing station, HistoCore Arcadia embedding workstation, microtomes, automated slide stainer, immunostainer, cryostat, slide and cassette printers, storage system for paraffin blocks and stained sections
Clinical Pathology Service	Ion selective analyser, clinical chemistry analyser, chemiluminescence immunoassay analyser, clinical refractometer, ELISA microplate reader, platelet aggregation analyzer (Aggregometer), blood coagulometer, osmometer, spectrophotometer uv/vis, electrophoresis system, densitometer, tabletop centrifuges, refrigerated large-capacity centrifuge for Blood bank, cytocentrifuge, microhematocrit centrifuges, microscope multihead (ten Headed), upright microscope with digital photography system, fluorescence microscope, upright microscopes, incubators set at different temperatures, clinical lab software
Laboratory of Microbiology and Parasitology	Microscopes (light, inverted and fluorescence microscopes), centrifuges, laminar vertical and linear flow hoods, incubators set at different temperatures, Real Time thermocycler, electrophoretic devices, fluorimeter, a system for automated microbial identification (Vitek, BioMérieux), autoclaves, refrigerators and freezers at different temperatures
Reproduction Facility	Imaging systems (microscopes, magnifying glasses), computer sperm analyser, incubators, embryo-freezer, basic molecular biology equipment and ELISA microplate reader. Vaginoscope and ultrasound. Laboratory of Reproduction: Computer sperm analyser system, stove, CO2 and multigas incubators, embryo-freezer, basic molecular biology equipment, microscopes (light, inverted and fluorescence microscopes), stereo microscopes, micromanipulator with heated plate, laminar flow cabinet, centrifuges, refrigerators and freezers





Our Establishment provides a diverse range of external services, covering a several number of programmes. We offer 23 external services, related to clinical support, diagnosis, analysis and advice in different areas of knowledge such as animal health, food safety, genetics, animal nutrition, food technology and hygiene, endocrinology, molecular biology, and environment (see Annex 4.3.5).

4.3.6 Premises used for the practical teaching of VPH (including FSQ)

The PP is located on the ground floor of the main building of the FVM, and comprises a clear area of approximately 150 m², three auxiliary laboratories C1, C2 and C3 (121 m²) and a tasting room (61,45 m^2) in an adjacent building. The PP contains a complete cheese production line with a cheese vat, moulds, steel curd knives, brine vat, pneumatic press, and ripening chamber, as well as a complete sausage production line with meat grinder, sausage fillers and ripening chamber. The PP is also equipped with a butter churner machine, burger moulding, incubation chambers, freeze dryer, vacuum/modified atmosphere packaging equipment, gas analyser for packages, convection/steam oven, autoclaves, and general equipment such as baths, working tables, dishwasher, freezers and refrigerators, as well as a recently installed refrigeration chamber. It also has specific equipment for processing various types of fish products (surimi gels and restructured products). The laboratories are equipped with instruments and reagents for assessing the quality and safety of food products and for testing the microbiological/chemical characteristics of the food handling environment (conventional and rapid methods for microbiological analysis of foods; methods for hygiene testing of food handling surfaces and equipment, water and air). The PP also has a standardised tasting room for the sensory analysis of the elaborated products. Around 360 students on average are trained in the facilities of the PP every year, split between the Veterinary (160) and FST (198) Degrees. Our students also carry out extra-mural practical training in different slaughterhouses, food markets, food industries, official reference laboratories and catering facilities (Annex 3.1.6a).

4.3.7 Premises, organisation and management of the TF

The TF is managed by a Committee (see Area1) which proposes and approves the Heads of the different Breeding Units and coordinates the use of the Farm facilities for teaching and research. Students receive staggered practical training in the subjects Basis of Animal Production I (1st), Animal Nutrition and Propaedeutics (2nd), Breeding and Animal Production (3rd) I and Clinical and Animal Production Rotation (5th). The TF covers an area of 18,000 m² and includes 6 different areas (sheep, rabbit, poultry, bovine, equine, beekeeping) for practical activities directly carried out with animals and a canine pavilion. It also has a central building consisting of an entrance hall, dressing rooms, toilets, lecture room, central laboratory, classroom, library space and faculty and staff offices. The enclosure includes units with permanent animals such as the rabbit and sheep areas. The number of animals in these herds is stable except for seasonal variations. The TF has other animal species in the teaching practice period. Each animal species unit has a veterinarian in charge, who is responsible for animal movement, health status, welfare and compliance with all legislation applicable to each species. Animals on the farm are healthy and follow their vaccination and deworming guidelines. If at any time they show signs of disease, they are evaluated by the person in charge of the unit and, in the event of posing an epidemiological risk, they are transferred to the VTH, which has the necessary equipment for their treatment and isolation.

Standard 4.4: CCT facilities

4.4.1 Organisation and management of the VTH and ambulatory clinic In the Small Animal Area, the Emergency Service is available 24/7 during the entire year, except in August. The interns on duty, with the assistance of technical staff, are responsible for evaluating emergencies and calling the emergency surgeon/anaesthetist/specialist, if necessary. In the Large Animal Area, the Emergency Service receives medical and surgical emergencies 24/7, 365 days a year. There is always a Medicine





0 71						
Area	Service	Specialty	Days/week	Opening hours	Weeks/year	
		General Medicine	M-F	09:30-14:00		
		Internal Medicine (specialist)	W	10:00-14:00		
		Gastroenterology	Tu, W, Th	10:00-14:00		
		Dammatala an	M, Tu	10:00-14:00		
		Dermatology	M, Tu	15:30-18:00		
		Cardiology	Tu, F	10:00-14:00		
	Medicine	Neurology	M, W	10:00-14:00		
		Nephrology and Urology	Tu	10:00-14:00		
		Endocrinology	M, Th	10:00-14:00		
		Ophthalmology	Tu, W, F	10:00-14:00		
		Oncology	Tu, F	10:00-14:00	10	
~		Hepatic diseases	Th	10:00-14:00	40	
Small Animals		Infectious diseases	M, Tu, W, Th	10:00-14:00		
	Exotic animal Med	icine	W, Th, F	09:00-14:00		
	-	General Surgery	M-F	10:00-14:00		
		General Surgery	W	15:30-19:00		
		Orthopaedics	M-F	10:00-14:00		
	Surgery	Rehabilitation and Physiotherapy	Tu. Th	10:00-14:00		
		Rehabilitation and Physiotherapy	Tu	15:30-18:00		
		Dentistry	Tu. W	10:00-14:00		
		Neurosurgery	F	10:00-14:00		
		Surgery Operating Rooms (by	M-F	According to needs		
		Surgery Operating Rooms (ER)	M-Su	24 h	48	
	Hospitalisation, IC	and ER	M-Su	24 h	48	
	Equine Medicine (t	by appointment and emergencies)	M-Su	24 h	52	
	, A Contraction of the second	By appointment	M. W	10:00-14:00	40	
Large Animals	Equine Surgery	Emergencies	M-Su	24 h	52	
	Ruminant Medicine	e and Surgery	M-F	According to needs	40	
		By appointment	M-F	09:00-14:00	40	
	Anaesthesia	Emergencies	M-Su	24 h	52	
	Diagnostic imaging		M-F	10:00-14:00	40	
	Diagnostic imaging	g (emergencies)	M-Su	According to needs	52	
			M-F	09:00-14:30	52	
	Clinical Pathology	Lab (sample reception)	W	15:00-18:00	40	
Central Services	Clinical Pathology	Lab emergency	M-Su	15:00-10:00	52	
	Pathology Lab (san	nple reception)	M-F	9:00-14:00	40	
			M-Th	9:00-16:30		
	Microbiology and I	Parasitology Lab (sample reception)	F	9:00-13:45	40	
		Small Animal Consultation	M W F	10:00-14:00	40	
	Reproduction	Reproduction Laboratory	M-F	According to needs	40	
	- oproduction	Stallion Service	M-F	According to needs	20	
				recording to needs	20	

clinician, a surgeon and an anaesthetist on call; the interns on duty receive the emergency patient (or emergency phone call) and, if necessary, call in the rest of the clinical team.

The Ambulatory clinic is carried out by ASO that are practitioners of recognised standing. There are 16 ASO participating in the Mobile Clinic, including 8 belonging to the Equine, 7 from the Ruminant and 1 from Swine Mobile Clinic. Clinicians perform their functions in their own private vehicles (16 cars). Large animals requiring immediate attention must be brought to the VTH, either in private vehicles or in the VTH vehicles. The teachers responsible for the Ambulatory Clinic visit a large number of farms or studs. The students visit on average 3 different centres per day and per teacher (ranging 1-8). The Ambulatory Equine Clinic usually visits around 162 studs of different size: 55 centres with 8-30 horses, 82 centres with 31-99 horses, and 25 centres with 100 horses or more, including racecourse facilities where more than 400 horses are usually living. With regards to ruminants, students routinely visit around 171 farms (Beef cattle farm: 60%; Dairy cattle farm: 32%; Fighting bulls and other farms: 11%). Of the total, 105 of them are small farms with less than 100 animals, 55 include 100 to 400 animals, and 11 farms have 400 animals or more (see Annex 4.4.1). Practitioners attend their ambulatory clinics with their 24/7 emergency calls, 365 days a year.





The number of students is decided by the clinical scenario and the handling procedures. The groups of students that carry out the clinical practice vary in size between 2 and 10 in the VTH. This enables each student to intervene directly on the patient under the supervision of a teacher (see Standard 5.3). Each ambulatory teacher is accompanied by 2 students from the 5th year (Special Surgery, 1st semester, and Clinical Rotation, 2nd semester); in this way, teaching is very individualised and allows students to perform numerous clinical procedures under the supervision of the teacher. Specifically, in the Clinical Rotation, each student attends directly to an average of 4-5 horses and 15-20 ruminants on each outing in ambulatory clinic. All the information about the Clinical Rotations, including the schedules, ethical and student behaviour standards, biosecurity and welfare rules, and responsibilities, is published and can be downloaded from the VC. Students are directly involved in each activity under the supervision of academic staff. A summary of the hands-on activities, responsibilities, and report writing developed by the students during the Clinical Rotations is included in Area 5 (standard 5.3).

4.4.2 Statement that the VEE meets the national Veterinary Practice Standards

All the specialists and teachers at the VTH are collegiate members of the COLVEMA and adhere to the <u>ethical code for the veterinary profession</u>, as established by the OCV. Most clinical teachers and VTH veterinarians are members of different professional associations: Spanish Association of Veterinary Specialists in Small Animals (AVEPA); Spanish National Association of Specialists in Bovine Medicine (ANEMBE); Association of Veterinary Specialists in Horses (AVEE); Spanish Veterinary Surgery Society (SECIVE); Equine Clinic Spanish Certificate), which ensures that they undergo continuous training and clinical improvement. In addition, many of the teachers and veterinarians dedicated to small animals at VTH are accredited by the AVEPA society for their specialities. Moreover, a relevant number of the teaching staff at the VTH are European Certified Specialist in different specialities (see Area 10)

Standard 4.5: Access to a diagnostic and therapeutic facilities

All students have access to diagnostic and therapeutic facilities, including diagnostic imaging, clinical pathology, anaesthesia, surgery and treatment facilities, intensive/critical care, ambulatory services, pharmacy and necropsy facilities under the supervision of the academic staff in charge, during their training. These facilities are also used for role playing and soft skill training during rotations, practical sessions and seminars, under the supervision of academic staff, between patients or in sessions embedded within the curriculum. Students have access to the clinical records of the VTH databases upon request by applying to the staff in charge of each service and may use those data for the completion of their GTh if required.

Standard 4.6: Isolation facilities

The VTH features fully operational isolation facilities designed for the management and containment of companion animals (7 places: 4 dogs, and 3 cats), equines and ruminants (2 places) with reportable diseases. These facilities were designed for complete isolation from the main hospital structures and have their own direct street access. The walls and floors are specifically engineered for effective disinfection and are equipped with independent ventilation systems, filtered air extraction, and 24-hour surveillance cameras to ensure a controlled environment. Animals suspected of having infectious diseases upon admission or during their stay are housed in these isolation units. They are kept under stringent isolation protocols, with dedicated personnel and materials, until the completion of appropriate diagnostic procedures. The isolation facilities are self-contained, equipped with specialised tools and instruments, and adhere to rigorous decontamination protocols, particularly when using shared equipment. Our protocols and procedures for the isolation unit are comprehensive and available on-line. The VISAVET lab has several biosecurity labs and a necropsy room specifically designed for manipulating Group 3 infectious agents (RD 664/1997) and agents listed on the World Organization




 $\begin{array}{l} {\tt Universidad\ Complutense\ Madrid}\\ {\tt Facultad\ de\ Veterinaria} \end{array}$

for Animal Health. These facilities are also bestowed with isolation spaces that include 3 individual boxes provided with separate access and air ventilation.

Standard 4.7: Ambulatory clinic and facilities for production animals.

The practical training in Herd Health Management is carried out in the TF facilities, in an intensive rearing system of sheep, rabbits and laying hens. The academic staff (Full Associate Professors and ASO) is coordinated by the Dept of Animal Production. A group of 9 students (1st, 3rd and 5th year students) is assigned to each teacher and each student learns in the three rearing systems. Students use their own working clothes while personal protective equipment and other disposable clothes/material needed are provided by the Dept. Means for reproduction management (equipment for rabbit insemination and semen collection, newborn lamb management, foot trimming gear, ultrasound for pregnancy diagnosis etc.) are also provided. This activity takes place from January to May.

The students visit private farms of swine, dairy and beef cattle, sheep, goat, poultry and horses. Apiaries, game animals in hunting grounds, and kennels are also included in the practice training. They attend these activities between September and December (4th year) and from January to May (5th year). These practices are programmed in groups of 5 students, or 10 students in bovine extensive rearing system farms. The FVM provides transportation to the farm and back. The van leaves the faculty at 8 a.m. and returns around 2 p.m. Students usually meet the staff at a meeting point at the farm. Academic staff include 10 ASO and several Full-Time teachers, specialised in beef or dairy cattle, small ruminants, swine, poultry, horse, bees, game animals and small animals. Students are provided with personal protective and biosecurity equipment including disposable coveralls, shoe covers, masks, and gloves. Other material for blood collection, sampling, rectal examination gloves for cows, necropsy is also provided when pertinent. Professional Academic staff use their own equipment for these activities such as ultrasound, insemination and semen collection equipment, surgical and sampling materials. All vehicles used in ambulatory clinics have the necessary equipment for the identification of the animals (electronic identifier readers), sampling, examination, and surgical material. The vehicles are also provided with ultrasound scanners. In addition, the vehicles used in reproduction activities have insemination and semen collection equipment.

Standard 4.8: Transport of students, live animals, cadavers and materials from animal origin

The FVM possesses 3 vehicles (8 seats each) for transporting students in small groups (practical training, livestock farms), and another is in process of acquisition. The drivers belong to the service staff and are authorised for these activities. The VTH has a car-trailer for transporting live animals (mainly horses). But, in general, most livestock/horse owners have their own transporters to bring an animal in.

Cadavers and organs are classified as animal by-products and must follow regulations according to the animal by-products disposal act, Regulation (EC) No. 1069/2009, of the European Parliament and the Council and Regulation (EU) No. 142/2011, of the Commission, constitute since March 4, 2011, the community legal framework applicable to SANDACH. Based on the permission given by the veterinary authorities, the FVM and VTH have 3 of their vehicles SANDACH adapted, one of them with a built-in platform. The outgoing by-products after being used for educational/research purposes and cadavers are collected by an authorised company for incineration (SECANIN).

Standard 4.9: Policies and procedures for biosecurity, good laboratory practice and good clinical practice

The UCM has a Unit for Labour Risk Prevention, which oversees all the aspects of risk prevention, including staff and student training and the removal of biosanitary waste and hazardous chemicals. The FVM has approved its own <u>waste disposal protocol</u> that complements that service. The FVM also has a Biosecurity Committee responsible for the elaboration of specific protocols, including a





document of teaching-related risk prevention. The information is public through the <u>website</u> and significant procedures or signalling displays are posted in the Establishment. It includes biosecurity procedures specific to PP, TF and VTH. First-year students receive specific mandatory training on basic risk prevention by the pertinent supervisors from the FVM and UCM. Additionally, students are trained on biosecurity procedures prior to any practical activity that requires it. Specifically, 5th year students attend a mandatory biosecurity activity before joining the rotational program. Students can submit suggestions or complaints through the <u>QS mailbox</u> provided.

Good laboratory practices and good clinical practices are decided in each clinical/laboratory service, and must be approved by the VTH Council, which brings together representatives of all services, including academic and support staff and students. VTH has procedures in place to maintain the quality of clinical activities. The VTH Deontology Commission, made up of representatives of the teaching staff and the technical and administrative staff, is responsible for collecting, evaluating, proceeding (contacting the clinicians involved, investigating the issue) and responding in writing, all those complaints or suggestions that clients can send to the Direction Secretary. This Commission reports periodically to the Hospital Council, as well as to the Direction. The Commission for the Control of Healthcare Commitment is responsible for evaluating the compliance of clinical staff with the clinical activities and reports annual information to the VTH Direction. In addition, in the regular meetings of the clinical services, potential problems or areas of improvements are addressed and analysed for their internal resolution or transferred to the Head of Area and to the Direction and Management of the VTH. These issues are also reported in regular meetings of the clinical area and in ordinary and extraordinary annual meetings of the VTH Council, addressing their course, review and resolution. All these systems guarantee the quality of the clinical services offered by FVM and VTH.

Comments on Area 4

Overall, facilities and equipment are updated and adequate for the delivery of the Veterinary curriculum. Classrooms and laboratories are being renewed on a regular basis, as well as equipment, and student needs are actively evaluated and considered. The ambulatory clinics have assured training in clinical areas without having intra-mural facilities to provide these learning opportunities. The VTH facilities are adequate for providing practical teaching to undergraduate and postgraduate students. Its structure allows teaching in different species and specialities. Nevertheless, facilities and equipment also need appropriate maintenance and replacement, which requires continuous financial support. All the additional units (PP, VTH and TF) are managed and organised by the academic staff, which guarantees their perfect adaptation to the needs of the curriculum, since the design and functionality of the facilities are aimed at ensuring the teaching needs. These additional units are dynamically enhanced to improve the quality of teaching. The TF also has a specific budget, as does the VTH, which makes it possible to make these adaptations more efficiently. Many significant changes in facilities and equipment have been made since the last EAEVE visitation.

Suggestions for improvement in Area 4

The clinical skills laboratory should continue to improve its teaching and self-learning capabilities and be completed with additional models. In addition, it is necessary to look for a centralised space where students can practise different skills without the need to move to their current locations. Control of the VTH budget must be such as to encourage the renewal of clinical equipment and the improvement of facilities. It is necessary to increase the clinical and support staff, not only to expand the range of services offered, but also to be able to extend the opening hours to the public, thus extending the availability of practical schedules for the students. Specific budgets are needed for other facilities of the FVM, such as the PP.



Animal resources and teaching material of animal origin





Standard 5.1. Number and variety of healthy and diseased animals, cadavers, etc.

Our faculty has the objective of assuring a high-quality education to the students. Regarding the training with animals and material of animal origin, the global strategy of the FVM is to continue and, if necessary, increase the use of these resources to achieve a correct hands-on pre-clinical and clinical training. This strategy is based on 4 different pillars: pre-clinical training, clinical training, TF and learning based on animal training models. Regarding pre-clinical training, the strategy of the FVM is based on maintaining agreements with external entities that guarantee sufficient cadavers and materials of animal origin. Furthermore, the FVM and the VTH have signed agreements with 2 companies to provide cadavers for teaching purposes. The Establishment acquires live large animals for pre-clinical training on companion animals, the number of cases was reduced during 2020 and 2021 owing to the lockdown and capacity restrictions due to the pandemic. Nevertheless, efforts have been made to maintain an adequate number of animals in all species. In fact, since the last visit in 2017, there has been an increase in the offer of consultations, such as exotic animals, rehabilitation, and dermatology.

New specialities and services have opened at the VTH, such as the Internal Medicine Consultation for Small Animals, the Respiratory, Reproductive and Urinary Endoscopy Unit, the CT Unit and the Advanced Cardiac Intervention and Cardiology Research Unit for Horses (CorELab-UCM). These new services, in addition to those already established (such as the Regenerative Medicine Unit, the Minimally Invasive Surgery in Cardiology Unit, the Electrophysiology Diagnostic Service and the Transesophageal Echocardiography Service) have resulted in an increase in the number of first opinion and referral cases.

The FVM is located in an urban area and, thus, the number of small animals attended intra-murally surpasses the number of horses and more notably, food-producing animals. Being aware of this situation, another important strategic line has been to strengthen clinical training in horses and cattle. This goal is being addressed by increasing the number of teachers attending large animals extramurally and increasing the number of large animals attended intra-murally. In fact, a constant economic and human effort is made to maintain the adequate facilities and staff to have the hospitalisation and emergency system in food producing animals in the VTH. The Establishment has hired teachers with a multidisciplinary clinical profile which enables an integrated training in Large Animal Internal Medicine, Surgery and Reproduction. This strategy can also result in a potential increase of hospitalised referral cases. On the other hand, the FVM maintains significant active agreements with the two Police Depts operating in the area: the National Police and the Council Police. These agreements include clinical attention for their working animals, especially horses and dogs. Another strategic pillar related to pre-clinical clinical/animal production training is the TF. At present, it has 7 units; the beekeeping unit has recently been incorporated, with 12 hives in a location near the FVM (Table 4.3.1). Many pre-clinical and clinical practices take place at the TF (1st, 3rd and 5th year students). It is worth mentioning the activity carried out by the students of the Production Animal Rotation in the 2^{nd} semester of the 5^{th} year.

Finally, we have recently increased the number of animal dummies and simulators, with the purpose of completing the training of our students. This kind of training does not replace hands-on training on live patients, but it does contribute to animal welfare by ensuring that students are not initially trained on a live animal. Within this program, the FVM has acquired animal models, especially for teaching clinical examination of small animals, equines and bovines. (see Area 4, Standard 4.2)

5.1.2 Strategy of the VEE ensuring that each student receives the relevant CCT

The number and distribution of cases is evaluated annually by the VTH Council and the Faculty Council in order to communicate significant changes and/or to propose new strategies, if necessary. The VTH ensures that the students receive an adequate and balanced practical training, considering





the broad client portfolio that allows them to acquire the clinical DOC. The distribution of clinical training hours by subject is based on the official distribution of the FVM curriculum: Medicine 28.7%, Surgery 25.3%, Diagnostic Imaging 10.5%, Anaesthesia 8.4%, Extra-mural Mobile Clinic 10.5%, Obstetrics and Reproduction 16.5%.

As described below, the proportion of animals of different species used for teaching purposes is balanced, as well as the proportion of first-opinion cases versus referrals. The number of intra-mural cases attended at the VTH is, in general, high. As mentioned, the VTH receives a higher number of small animals and horses compared to food-producing animals.

Regarding small animals and exotic animals, 70% of the cases attended in the General Medicine Consultation are first-opinion cases. This allows students to be properly trained in the clinical approach of common diseases, from the beginning of a case. The average number of referral cases attended in Speciality Consultations is 50%. However, the frequency of referral cases reaches 90% in Internal Medicine Consultation, 60% in Endocrinology and Gastroenterology and Physiotherapy, and 90% in some diagnostic procedures such as Endoscopy. The percentage of referral cases in Equine Medicine is around 95%, while in food-producing animals it is very low if referrals are considered sensu stricto. Most food-producing animals attended at the VTH have been previously attended by ASO working in the Ambulatory Clinic, who directly refer cases to the VTH, when necessary. Most of the ruminant clinic practice is extra-mural (90%), due to the urban location of FVM. The balance between acute and chronic cases varies significantly depending on the animal species. In small animals, the percentage of chronic cases is higher and may reach 70%, while in large animals almost 65% of cases are acute. In relation to the balance between consultations (day patients in the clinic) and hospitalisations, 90% of small animals are attended in consultations and 10% of cases remain hospitalised. On the other hand, 65% of horses require hospitalisation and 35% are attended on a one-day clinic basis. Finally, around 12.5% of our clinical activities are focused on population medicine, while 87.5% rely on individual medicine.

5.1.3 Procedures developed to ensure the welfare of animals

The Spanish transposition of the Directive 2010/63/EU for the Protection of Animals used for Scientific and Educational Purposes (RD 53/2013) regulates the use of animals for such purposes. All procedures must be favourably reported by the <u>EAWC</u> of the animal facility, approved by the Institutional EAWC of the FVM, VTH and EAWC of the UCM, and, finally, approved by the competent CM authority. Such approval requires applying the 3R concept of reduction in the number of animals employed, refinement of the procedures used, and replacement by alternative methods. Exemptions are those procedures below the established threshold (e.g., basic physical examination). Currently, most teaching clinical activities are performed at the VTH with client-owned patients. Besides, in 2021 all teaching practices with living animals (36) were re-evaluated by the EAWC of the UCM and approved by the competent authority where necessary (above the threshold). Of them, only four were considered Procedures and required further approval by the competent authority. Since 2020, 23 research projects have been evaluated by the EAWC of the FVM. All information about teaching and research projects evaluated by the EAWC of the FVM is available in the files of the Dean's Secretariat:

Dept/DS	No. teaching practices	Non-procedures	Procedures*
Dept Animal Medicine and Surgery	14	10 (UG:7, PG:3)	4 (UG:2, PG:2)
Dept Animal Production	19	19 (UG:16, 3GTh)	0
Dept Animal Health	2	0	2 (UG:2)
DS Physiology	1	1 (UG:1)	0
Total	36	30 (UG:27, PG:3)	6 (UG:4, PG:2)

Undergraduate (UG) and postgraduate (PG) teaching practices with live animals. *Procedures (require approval by the competent authority)





The personnel are adequately educated and trained, and thus competent, in the required functions (Ministerial Order ECC/566/2015). The personnel are continuously trained through officially recognised training activities approved by the competent authority. Such <u>training</u> has been developed by FVM in collaboration with the Vice-Rectorate for Research from 2021 to 2023.

The registered animal facilities are under administrative responsibilities of the institution. Qualified animal facility directors manage all the facilities and an animal welfare officer, and a designated veterinarian supervise the welfare and health of animals, in accordance with European and Spanish regulations. Our Establishment has six animal facilities officially approved for animal use for scientific and educational purposes. Animals housed at the FVM for teaching purposes are kept in accordance with the requirements of the RD 53/2013 (EU Directive 63/2010). The centre is inspected by the competent authority on a regular basis (at least annually) to verify compliance with the regulations. This involves identification of animals, environmental conditions or personnel competence, welfare, sanitary controls.

In the case of dogs bred and used for teaching purposes and housed in the VTH animal facility, veterinary behavioural counselling and environmental enrichment systems are provided. A health plan including vaccination and deworming programmes is applied in addition. Also, a Culture of Care document has been developed and submitted to the competent authority, detailing aspects such as the commitment of the institution to such care and transparency in the use of these animals. Current resources include Beagle dogs (10, 4 males and 6 neutered females) housed in a specific facility with eight boxes and a courtyard. Dogs are used in the subjects Propaedeutics and Obstetrics and Reproduction I, as well as in some postgraduate courses (which take place in the second semester between January and May). Therefore, to enhance the welfare of these dogs, and after guidance from the ethology expert who regularly supervises them, a foster care system has been implemented from June to January each year. Foster families remain the same every year and are in close contact with the veterinarian responsible for the facility, should they need assistance in resolving doubts or receiving recommendations for care. Once they return in January, dogs resume their routine at the facility, while still maintaining contact with their foster homes, whose members can voluntarily join the daily walks with these dogs. Upon arrival at the animal facility, an annual health check is conducted to assess their condition and determine the need for clinical interventions, such as dental cleanings. Dogs are walked daily, where students are involved. Furthermore, to reduce the use of dogs in clinical Propaedeutics practices, this subject offers students the option to voluntarily bring their own dogs to these practical sessions.

The TF has the authorization to carry out procedures with animals both for animal experimentation and for teaching purposes, renewed by the CM in December 2022 and with periodic inspections by the Animal Protection Area every 6 months. Since 2022, the TF has an action plan for the care and welfare of the animals and the correct performance of all approved practices. The FVM has 7-9 horses available for student training. Most are donated or loaned by their owners for the peak teaching months from January to June. They are housed in the facilities of the Equine Unit of the TF. All horses are identified and registered in the CM programme. They are also subjected to all the statutory deworming and vaccination programmes. The horses are vaccinated against influenza and tetanus. The FVM has a total of 16 cows for student training. The animals are selected at the farm of origin and comply with all requirements, both in terms of health and handling. All animals arriving at the TF have been tested for bovine brucellosis and tuberculosis 30 days prior to arrival. The tests are repeated by the official veterinarians 5 months after their arrival. They are housed in the facilities of the Bovine Unit of the TF. At the end of the training period, the healthy animals return to their farms of origin.

The animals used for teaching in the permanent units of the TF, including rabbits, small ruminants, and chickens, are identified and registered in the CM programme. The flock of sheep is officially





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classified as free of ovine brucellosis by the General Directorate of Agriculture, Livestock, and Food, and official vaccination campaigns against Bluetongue have been conducted. A health programme is implemented for rabbits to control the following infectious and contagious diseases: Myxomatosis and Rabbit Viral Haemorrhagic Disease. The hens at the farm are purchased from a salmonella-free farm. The animals are periodically dewormed both internally and externally.

The sheep unit has a maximum capacity of 90 heads, but currently houses 75 heads, consisting of 6 males and 69 females. The rabbit unit has a maximum capacity of 56 breeders, future breeders, and their offspring during the breeding period. The growing area can accommodate up to 168 rabbits. The caged hen area has a maximum capacity of 50 birds, divided into two houses with 5 cages each, accommodating 25 birds in each house. The maximum capacity for free-range hens is 34 due to the indoor area, and currently, there are 12 hens.

As previously mentioned, the FVM has adopted strategies to safeguard animal welfare, notably through the increased use of animal dummies and simulators. This practice underlines our ongoing commitment to ethical and responsible use of animals in education and research.

5.1.4 Cadavers and material of animal origin for training in anatomy and pathology

For practical training in Anatomy, fresh, frozen and fixed materials are generally used. Cadavers of dogs and cats come from local animal protection centres that have an agreement with the UCM, as well as from individual donations under the <u>faculty's donation program</u>. Horse, ruminant and swine specimens are obtained from regional slaughterhouses. Chickens, rabbits and exotic animals are collected from farms, animal houses, private clinics, recovery centres and zoos. Several other animal products, such as embryonated eggs, are obtained from poultry farms. Foetuses with congenital malformations are provided by private practitioners. Cadavers of dogs that are used for dissection are either embalmed on-site by the Veterinary Faculty staff and stored at +4°C or stored at -20°C for non-preserved dissection. Cadavers of other species are also stored at -20°C for non-preserved dissection. The DS of Anatomy also has a bone store with hundreds of bone pieces and a collection of plastinated specimens and congenital malformations. 3D printed and digital anatomical models are being developed and gradually introduced.

With regard to cadavers for training in Pathology, animals are obtained from the VTH, farms, veterinary clinics and other external entities, as well as from clients that send their animals for necropsy for diagnostic purposes. Animals for private diagnosis are processed as soon as they arrive or kept refrigerated (0-4°C) until the following day, if necessary. The rest of the animals are usually preserved frozen at -18°C. Both the cadavers and the different specimens used in practical classes are collected either by services of the Madrid City Council or by private incinerators (SECANIN) to be incinerated.

5.1.6 Number and variety of animals and material of animal origin

The coordination of all aspects related to the use of animal species and material of animal origin for pre-clinical and clinical student training is carried out at different levels. Firstly, the teachers responsible for each pre-clinical and clinical subject design a teaching programme based on the curriculum contents. They define the approximate number and variety of animals and animal materials required for optimal training. The programme for each academic year is prepared five to six months in advance and submitted to the Department Council responsible for the subjects involved for discussion and approval. The information is then evaluated annually by the CEMGV, which prepares a document to be submitted to the Faculty Council for approval. These programmes are published on the FVM website. The governing bodies that receive the information comprise representatives of all groups in the faculty, including academic staff, support staff, and students.





Table 5.1.1 Cadavers and material of animal origin used in practical anatomical training* (Details in Appendix 6.4)

8	-			0
Species	22-23	21-22	20-21	Mean
Cattle (Specimen)	200	204	204	202.6
Small ruminants (Specimen)	265	265	265	265
Pigs				
Live animals	1	1	1	1
Cadavers	4	4	4	4
Specimen	216	216	216	216
Companion animals				
Cadavers	60	76	76	70.6
Specimen	110	110	110	110
Equine (Specimen)	78	74	74	75.3
Poultry & rabbits (Cadavers)	56	56	56	56
Aquatic animals (Cadavers)	600	600	600	600
Exotic pets				
Live animals	24	24	24	24
Cadavers	162	162	162	162
Others (Snails)	200	200	200	200

* In addition to the animal material, 20 dog brains, a sheep stomach and a dog intestine are available in 3D models.

Table 5.1.2 Healthy	live	animals	used	for	pre-clinical
training					

Species	22-23	21-22	20-21	Mean
Cattle	16	16	16	16
Small ruminants	100	100	100	100
Pigs	0	0	0	0
Companion animals	18	18	18	18
Equine	7	9	9	8.3
Poultry & rabbits	830	830	830	830
Exotic pets*	20	20	20	20
Others (Rodents)	225	225	225	225

* Water turtles, snakes, rabbits, pigeons (occasionally, pogonas, land turtles or parrots).

Table 5.1.3 No. of	f patients seen	intra-murally	(VTH)
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Species	22-23	21-22	20-21	Mean
Cattle	53	44	27	41.3
	(1,272)*	(1,276)*	(737.1)*	(1,095.)*
Small	116	118	116	116.7
ruminants	(220)**	(87.8)**	(157.8)**	(155.2)**
Pigs	15	31	17	21
	(15)*	(31)*	(17)*	(21)*
Companion	12,302	12,101	9,541	11,314.6
animals	(32,176)*	(29,275)*	(22,244)*	(27,898.3)*
Equine	415	373	310	366
	(2,688)*	(2,432)*	(3,680)*	(2,933.3)*
Poultry	0	0	0	0
Exotic pets*	281	315	243	366
	(620)*	(568)*	(548)*	(578.7)*

*Including rabbits as exotic pet

*No. of visits of patients seen intra-murally

**No. of visits to animals living in the TF are not included

Table 5.1.4. No. of patients** seen extra-murally (in the ambulatory clinics)

Species	22-23	21-22	20-21	Mean
Cattle	5,265	6,224	7,177	6,222
Small ruminants *	3,900	3,900	3,900	3,900
Pigs *	7,550	7,550	7,550	7,550
Companion animals	15-20	15-20	15-20	15-20
Equine	1,843	2,087	1,892	1,940.6
Poultry & rabbits*	165,00	165,000	165,000	165,000
Exotic pets	0	0	0	0

*These data correspond to the total census of the farms visited by the students. Due to the usual production systems for these species in our country, the work of the veterinarian only includes sporadic individualised care of patients belonging to these species

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

Species	22-23	21-22	20-21	Mean
Cattle	100	100	100	100*
Small ruminants	100	100	100	100*
Pigs	100	100	100	100*
Companion animals (General Consultation)	70	70	70	70
Companion animals (Specialities)	50	50	50	50
Equine	5	5	5	5
Poultry & rabbits	-	-	-	-
Exotic pets	80	80	80	80

*Most food-producing animals attended at the VTH have been previously attended by the ASO working in the Ambulatory Clinic, who have transferred directly the cases, when necessary





Species	22-23	21-22	20-21	Mean
Cattle	31	27	20	26
Small ruminants	102	87	135	108
Pigs	51	83	76	70
Companion animals	279	261	403	314.3
Equine	36	27	16	26.3
Poultry & rabbits	327	100	112	179.7
Aquatic animals	1,296	1,830	1,307	1,477.7
Exotic pets	23	13	7	14.3
Others (Mice)	718	1139	680	845.7

Table 5.1.6a Cadavers used in necropsy

Table 5.1.6b Organs rejected at postmortem inspection in slaughterhouses used for teaching purposes in diagnostic pathology

Species	22-23	21-22	20-21	Mean
Cattle				
Liver	42	41	33	38.7
Lung	29	33	34	32.0
Heart	12	8	14	11.3
Kidney	6	2	0	2.7
Small ruminar	nts			
Liver	94	112	103	103
Lung	84	136	84	101.3
Heart	46	43	21	36.7
Kidney	33	16	6	18.3
Esophagus	25	36	21	27.3
Diaphragm	5	3	0	2.7
Legs	0	4	0	1.3
Pig				
Liver	16	48	17	27
Lung	48	100	58	68.7
Heart	24	32	22	26.0
Kidney	0	2	3	1.7
Legs	1	4	3	2.7

Standard 5.2. Practical training at external sites.

As previously described, the TF has 6 different areas (sheep, rabbit, poultry, bovine, equine, beekeeping) and a canine pavilion for practical activities directly carried out with animals. The involvement of the students in the TF is as follows:

- Sheep Unit. During their practical training, students learn about the behaviour, handling techniques, feeding and welfare related to sheep lambing, perinatal care, lactation, growth evaluation and body condition assessment. They also perform reproductive control in the herd, carry out oestrus synchronisation techniques, directed natural mating, and pregnancy diagnosis by ultrasound.
- Rabbit Unit. This unit has a permanent population of what is considered an endangered local breed (Ibicenco rabbit). Students are directly involved in nutrition, handling, management, animal welfare and breeding. They work on feed consumption, collect faeces and analyse digestibility. Students apply reproductive techniques (artificial insemination, semen examination) and collect performance data for genetic studies.

Table 5.1.7 No. of visits in herds/flocks/units for training in Animal Production and Herd Health Management

Species	22-23	21-22	20-21	Mean
Cattle	57	67	70	64.7
Small ruminants	27	19	27	24.3
Pigs	38	38	38	38.0
Poultry	40	38	40	39.3
Rabbits	-	-	-	
Aquatic Animals	23	23	23	23
Others:				
Hunting farms (wild boar, deer)	4	4	3	3.7
Apiaries	3	3	2	2.7
Shelters of cats and dogs	3	3	0	2.0
Police Equine Unit	10	11	10	10.3
Equine Stud	3	3	3	3.0

Table 5.1.8. No. of visits in slaughterhouses and related premises for training in VPH (including FSQ)

Species	22-23	21-22	20-21	Mean
Ruminant's slaughterhouses	39	36	31	35.3
Pig's slaughterhouses	17	16	14	15.7
Poultry slaughterhouses	10	8	8	8.7
Related premises:				
Cutting room	12	8	8	9.3
Fish and fruits central markets	34	28	27	29.7
Food establishments (pest control)	40	40	39	39.7
Food establishments (consultancy)	41	40	38	39.7
Food processing industries	8	8	0*	8
Reference official laboratories	8	8	0*	8

*Visits were not allowed to these two premises due to the pandemic condition





- Poultry Unit. Students work on the management of laying hens and broilers, and on the effect of diet on egg and meat quality and production. All students participate in grinding, weighing and mixing the ingredients, vitamins and minerals.
- The equine and bovine units are used in the practice of propaedeutics, where students learn management and exploration in both species. In addition, in the bovine unit, the students of the Clinical Rotation learn the management related to reproduction: palpation, ultrasonography, and assistance with delivery of the animals.

Training in Animal Production, Food-Producing Animal Preventive Medicine, and Population Medicine allows the students to practice in farms of different animal species, including cattle (beef and dairy cows and feedlots), small ruminants, swine (all production phases) and poultry (broilers and laying hens). The size of the farms may vary depending on the animal species. In 2022-23 the size of the farms ranged from 20 to 600 cows (dairy and beef cows or feedlot animals); from 400 to 4,000 sheep or goats; from 15,000 to 1,000,000 broilers and hens; and from 1,500 and 4,000 sows (see Annex 5.2). Besides, in the case of cattle, the Ruminant Mobile Clinic also deals with production medicine (farm animal management, feeding, welfare and reproduction).

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

5.3.1 Nursing care skills are implemented and taught to undergraduate students

Nursing care skills are implemented and taught to undergraduate students at the VTH through a structured and comprehensive approach. The responsibility for implementing and teaching these skills lies with a team of experienced veterinary professionals, including veterinarians (teaching and technical staff) and veterinary nurses (technical staff). These staff are specialised in their respective fields both in companion and food-producing animals and have extensive practical knowledge and expertise in nursing care. The implementation of nursing care skills involves a combination of theoretical training, practical demonstrations, and hands-on practice. Students receive classroom lectures and discussions to familiarise themselves with the theoretical aspects of nursing care, including principles, techniques and best practices. They are taught patient assessment, monitoring of vital signs, medication administration, wound care, patient hygiene, and other essential nursing procedures.

Practical training is an essential part of teaching nursing care skills. Under the guidance and supervision of experienced veterinary professionals, students actively participate in clinical workups of patients during the Clinical Rotations. Students are assigned to specific cases and are involved in all aspects of patient care, including problem-oriented diagnostic approaches and decision-making. Students have the opportunity to apply their knowledge and skills in real-life scenarios, working alongside with the veterinary team to provide comprehensive nursing care. The veterinary professionals closely supervise and mentor the students during their practical training, ensuring that the nursing care skills are properly implemented and practised. They provide guidance, feedback, and correction when necessary to enhance the students' understanding and proficiency in nursing procedures. The teaching of nursing care skills is a continuous process throughout the undergraduate programme. Students receive progressive training, starting from basic nursing skills and gradually advancing to more complex procedures as they gain experience and proficiency, especially during the last semester of the curriculum.

Overall, the implementation and teaching of nursing care skills to undergraduate students at the VTH is delivered by a dedicated team of experienced veterinary professionals through a comprehensive approach that ensures that students develop the necessary knowledge, skills, and confidence to provide competent and compassionate nursing care to their future patients.





Facultad de Veterinaria

5.3.2 Group size for the different types of clinical training

From the 2nd year onwards, students carry out clinical activities at the VTH as part of the programme of different core subjects. In these practices, students go in small groups (5-10 students) to the VTH and the TF facilities to perform clinical activities under the supervision of teachers of the core subjects.

Students of the Clinical Rotations are divided into groups (16 groups in the last academic year). The number of students per group slightly varies each year depending on enrollment, from 9-11. Groups are usually subdivided in different simultaneous intra-mural activities (Speciality clinics or other activities of the same Service) supervised by different teachers, ensuring a student:teacher ratio of 5 maximum. The Ambulatory Clinic has a maximum of 2 students per teacher. Extra-mural activities of Preventive Medicine and Population Medicine include the entire group. The sizes of the Clinical Rotation groups are summarised below.

Rotation	No. of groups working simultaneously in the same activity	No. of students-to-teacher (and per clinical case, if appropriate) and maximum ratio student:teacher
Small Animal Medicine	2	Students distributed in 5-6 Speciality Consultations every day. 4:1
Infectious and Parasitic Diseases Consultation and Laboratory	0.5	4:1
Small Animal Surgery	2	Students distributed in 3 Specialty Consultations and, at least, 2 Surgery Operating Rooms every day. 4:1
Small Animal Anaesthesia	1	Students distributed by clinical case and teacher (2-3 every day). 4:1
Diagnostic imaging	1	Students distributed, at least, in Radiology and Ultrasound Units. 5:1
Pathology	1	Necropsy room attended by 2 teachers every day. 5:1
Large Animal Area (intra- mural)	2 (but each in a different activity)	Complete group/teacher (and clinical case); but in some activities, the group is subdivided between 2 teachers to reduce the ratio to 5:1.
Ambulatory Clinics	1	Students distributed in 4-5 groups (4-5 teachers). 2:1
Population Medicine	1	Complete group/teacher

5.3.3 Involvement of students in hands-on clinical procedures in the different species

The VTH offers students valuable hands-on learning opportunities, allowing them to apply theoretical knowledge in a practical setting and gain invaluable experience in delivering high quality veterinary care. The VTH provides opportunities for students to actively participate in a wide range of clinical procedures, both within the hospital and in external settings. The exact nature of these activities varies depending on the specific area in which the student is assigned. However, they typically encompass a variety of responsibilities that include:

- 1. Client Communication and Education: Students engage in direct communication with clients, which involves performing a correct anamnesis, discussing the medical condition of their animals, explaining treatment plans, and addressing any concerns or questions they may have. This interaction helps to develop interpersonal and communication skills. They may also provide educational resources and advice to clients regarding pet care and disease prevention.
- 2. Biosecurity Procedures: Students are trained in and adhere to strict biosecurity protocols to ensure the safety and welfare of both the patients and themselves. This includes following proper hygiene practices, applying personal protective equipment, and maintaining a clean and sterile environment.





- 3. Assisting in Clinical and Diagnostic Procedures: Students learn and actively participate in different clinical procedures, such as taking patient histories, conducting physical examinations, developing problem and differential diagnosis lists, collecting and analysing samples for laboratory tests, and interpreting diagnostic results. Under the supervision of experienced clinicians, students gain practical experience and contribute to the overall healthcare delivery. They are also instructed in writing clinical data on the electronic system (Qvet®) for clinical cases assigned to them.
- 4. Surgical Support: In surgical areas, students assist in preoperative preparations, provide support during surgical procedures, and participate in postoperative care, including wound management and anaesthesia monitoring.
- 5. Patient Monitoring: Students are responsible for closely monitoring the progress of patients, which may include observing vital signs, assessing response to treatment and documenting any changes or complications. This involvement allows students to develop critical thinking skills and improve their clinical judgement.
- 6. Treatment Planning and Implementation in collaboration with the Healthcare Team: Students work collaboratively with veterinarians, technicians and other healthcare professionals in the VTH. They contribute to discussions regarding patient management, participate in case rounds, and engage in multidisciplinary teamwork to ensure comprehensive care. They may be involved in discussing treatment options, administering therapies, and monitoring the response to treatment.
- 7. Record-keeping and Documentation: Students are responsible for maintaining accurate and detailed patient records, including medical histories, examination findings, diagnostic results, treatment plans, and progress notes. Students have special access to the Qvet® system to check any clinical data they may need.
- 8. Collaborative Learning: Students actively participate in case discussions, rounds, and team meetings, collaborating with faculty members, fellow students, and veterinary professionals to enhance their learning and contribute to patient care.
- 9. Research and Continuing Education: Depending on the area and opportunities available, students may engage in research activities, assist with ongoing studies, or participate in continuing education programmes to expand their knowledge and skills.

The specific activities in which students participate during their work in different areas can vary. However, here are some essential tasks that students are typically involved in:

First-opinion and Speciality Consultations, both medical and surgical, in all animal species

- Conducting patient (or population) history-taking and performing comprehensive physical examinations, including neurological, orthopaedic and ophthalmologic assessments, as required by the clinical case.
- Evaluating nutritional and welfare status in individual and population medicine.
- Compiling a problem list, generating differential diagnoses, developing a working plan, and determining appropriate therapeutic approaches.
- Communicating effectively with clients, ensuring clear and concise information exchange.
- Performing diagnostic procedures such as fine-needle aspiration cytology, collection of blood and urine samples, blood pressure measurement, Schirmer test, ocular tonometry, skin scrapings, electrocardiogram, faecal smear examination, Pap smear, and others.
- Administering therapy using various routes (oral, subcutaneous, intramuscular, intravenous).
- Assisting in other diagnostic and therapeutic procedures, such as endoscopic protocols, cerebrospinal fluid analysis, skin biopsy, chemotherapy administration, euthanasia, among others.
- Applying bandages and using immobilisation techniques when required.





• Maintaining accurate medical records and preparing detailed reports by documenting patient cases and procedures.

Hospitalisation and emergencies, both medical and surgical, in all animal species

- Performing first aid procedures, when necessary.
- Reviewing the history, evaluating the patient through a physical exam, and updating the clinical record.
- Preparing the list of problems, differential diagnoses, working plan, and therapeutic approach.
- Carrying out routine diagnosis procedures in hospitalised animals: blood and urine sample collection, blood pressure measurement, etc.
- Working in different therapeutic procedures: placement of intravenous catheters, administration of fluid therapy (choice of fluid, calculation of dose, and administration), administration of drugs by different routes, placement of urinary catheters, bandaging, wound cleaning and dressing, and other post-surgical care procedures.
- Designing and administering nutritional therapy for hospitalised cases.
- Assisting in other diagnosis/therapeutic procedures, such as placing feeding tubes, inserting drainage tubes, draining effusions, performing blood transfusions, conducting endotracheal intubation and mechanical ventilation, and carrying out euthanasia.
- Applying biosecurity procedures, especially in isolated cases.
- Communicating effectively with the client.
- Writing medical records and preparing reports.

Surgery Operating Rooms (in all animal species)

- Participating in the preparation of surgeries by arranging surgical materials, preparing the operating room and the patient, while following biosecurity rules and adhering to aseptic surgery principles.
- Independently performing simple surgical procedures such as ovariohysterectomy, orchiectomy, tumour excision, and others.
- Assisting the surgeon in complex procedures as a surgical assistant.
- Suturing surgical wounds and applying bandages and drains when necessary.
- Being responsible for the immediate post-operative care of surgical cases.
- Communicating effectively with the client.
- Writing medical records and preparing reports.

Anaesthesia (in all animal species)

- Assessing the pre-anaesthesia condition of the patient.
- Discussing and designing the appropriate anaesthesia protocol for each case and procedure.
- Performing all necessary complementary tasks, such as administering fluid therapy, providing local anaesthesia and performing intubation.
- Administering the previously validated anaesthesia protocol under the supervision of a teacher.
- Monitoring the entire anaesthesia procedure, including induction, maintenance, and recovery, and making decisions as required.

Diagnostic Imaging (in all animal species)

- Assisting in positioning the patient for procedures.
- Initiating ultrasound studies and providing assistance to the teacher during comprehensive studies.
- Discussing and interpreting the results of radiological and ultrasound studies, and writing reports based on diagnostic imaging findings.
- Participating in MRI and CT procedures, as required.





Necropsies (in all animal species)

- Reviewing the individual/population history of the animal.
- Conducting a thorough and systematic necropsy, discussing the macroscopic findings and establishing their correlation with the clinical observations.
- Elaborating a gross report for each necropsy (each student makes a report of the necropsy conducted).

Large animal reproduction

- Performing rectal palpation.
- Assisting in various procedures commonly conducted in cattle reproduction, particularly ultrasound examinations.
- Assisting in various procedures related to Stallion Stud Service, such as semen collection, semen contrast and dilution, artificial insemination, and mare breeding.

Preventive Medicine/Population Medicine (cattle, small ruminants)

- Evaluating biosecurity measures on farms housing different animal species.
- Assessing the welfare conditions of animals across different ages and physiological states.
- Evaluating the potential role of environmental conditions as predisposing factors for disease in animals of varying ages and physiological states and assessing environmental control systems in poultry and pig farms.
- Clinically evaluating animals to identify potential disease indicators.
- Assessing the body condition of animals and the feeding programme within the population.
- Reviewing the health and preventive medicine programmes implemented in different farms.
- Collecting biological samples, especially blood and milk, for diagnostic purposes in population medicine.
- Performing necropsies in the event of casualties within the operation.
- Reviewing mastitis control programs in ruminant dairy farms.
- Describing and analysing data records, including the use of management programs in farms where they are routinely used.
- Implementing sanitary programmes.
- Performing various common on-farm practices, such as reproductive control through pregnancy diagnosis and insemination.

5.3.4 Periods in discussion, thinking and reading to deepen their understanding of the clinical case and its management

It is mandatory for students to actively participate in the clinical rounds with the clinical teams of the different services (consultations, surgery rooms and hospitalisation premises). In these rounds, they review the assigned cases, and they discuss the procedures that have already been performed, and the approach for the next visit. At the end of the consultation, students analyse and discuss with the teacher about the patients they have attended.

In the case of Anaesthesia, the students should have reviewed the assigned cases in advance, checking the pre-surgical evaluation in the clinical database, for which they have home access as well. Students must come to the rotation with a designed anaesthetic protocol that is discussed in the round. In the necropsy rotation, the students review the clinical records including the diagnostic and therapeutic procedures and discuss the connection with the necropsy findings in addition to elaborating a gross report with the teacher. At the end of specific rotations, students select and present a case report on a clinical case/group of animals among those they have directly attended. They must include their personal participation, and a complete critical discussion based on the literature, to improve their understanding of the case. At the end of all rotations each student presents 10 reports: 1 for Small





Animal Medicine, 1 for Small Animal Surgery, 1 for Anaesthesia or Pathology (they choose which one to do; however, from the current academic year it will be mandatory to submit a report for each of these rotations), 1 for Large Animal Clinic (for horses or cattle, they choose which one to do), 1 for Small Animal Infectious/Parasitic Diseases, and 5 for Population Medicine (meat cattle, milk cattle, small ruminants, pigs and poultry, respectively).

Standard 5.4 Medical records for patients

Qvet® software serves as the client and patient database for all patients at the VTH. This software handles various tasks such as appointments, billing, dispensing medications from the pharmacy, processing sales, storing analytical results and images of the cases. Most of the VTH management information is centralised and managed through this software. It is accessible to both staff and students, and computers equipped with Qvet® are located in the administration service as well as in all clinical services, including consulting rooms. Qvet® is not only responsible for managing administrative functions but also plays a crucial role in documenting all clinical activities within the hospital; administrative staff, teaching and technical staff and students have different types of access.

Comments on Area 5

Numerous animal welfare measures have been implemented following the 3R model and current legislation. This includes the acquisition of models and dummies to minimise the number of live animals required for pre-clinical and clinical teaching. The VTH has a stable portfolio of clients, ensuring an adequate number of patients for clinical teaching. The academic staff dedicated to the clinical practice of production animals make significant efforts to obtain patients of these species for students to perform intra-mural clinical practices. The clinical services available at the VTH have been expanded through the incorporation of specialists and the creation of specific clinical units. The Pathology service has increased and stabilised the number of pieces obtained from slaughterhouses for examination during clinical rotation. Finally, the TF has incorporated new animal species, such as the beekeeping unit.

Suggestions for improvement in area 5

Although it is complicated by the fact that the FVM is not located in a rural area, it is necessary to further improve the balance of species at the VTH. Despite the efforts made, a greater number of production patients is needed for the intra-mural clinical practices. It is necessary to continue increasing the number and species of animals in the TF. A larger budget is needed to continue the acquisition of simulators and models for clinical education. Efforts must continue to attract specialised talent to the various VTH services.



LEARNING







Facultad de Veterinaria

Standard 6.1 State-of-the-art learning resources in the VEE

The VEE's strategic goal is to ensure that in person and virtual learning resources provide excellent teaching and research opportunities and a stimulating learning environment for students and staff. These resources include library services, an IT area, an e-learning platform, a wide set of virtual learning material (graphic, visual, gamification, guides, on-line museums and atlases, etc.), teaching facilities and animal simulators, specifically designed to support veterinary education.

Extensive academic resources are available, including a well-stocked university library, extensive Eduroam Wi-Fi coverage, and a wide catalogue of e-learning tools available through the UCM website or embedded within the university's e-learning platform (VC). A wide selection of these services are provided in the FVM library website:

- A loan service that aims to facilitate consultation of the bibliographic collection inside and • outside its facilities.
- Recommended bibliographies for all subjects that can be found by code, subject name, or grade. Students and staff can request the acquisition of new titles directly through the web.
- A database to find scientific papers, newspapers, Complutense digital heritage, academic works (GTh and MTh), books, and scientific journals of UCM in English and Spanish languages. Guides for the successful development of GTh and MTh with information about where and how to find and organise the most relevant information, how to write the work, or avoid plagiarism and correctly cite the information are available. Guides for present academic works, copyright, and methods of publication and dissemination also are available.
- Virtual or on-site continuing training courses offered by the Establishment and UCM Library staff for bibliographical search, access to and database management, and learning resources.
- Bibliographic managers (Mendeley, Zotero, EndNote, RefWorks, etc.) to organise the research and create footnotes, citations, and bibliographies for academic works.
- A personalised service to facilitate access to learning resources for disabled students and courses with a Spanish sign language interpreter.

Other resources specifically designed for veterinary training include a wide range of options, thoroughly, and among benefits, aim to resolve the "never the first time on a live animal concept". Some of these resources include:

- Exploration models (devices and dummies for exploratory techniques, catheterization, etc.) in the Dept of Animal Medicine and Surgery and VTH. See Area 4.1.2. for details.
- Anatomic models (3D prints, fixed organs, etc.) in the DS of Anatomy and Embryology
- Virtual imaging material (image Scope), on-line electronic guides, etc., available on the FVM website or on the VC for pertinent subjects.
- An on-line FVM <u>museum-atlas</u> for sub-gross anatomy and histology.

The official language of the study program is Spanish, yet much of the content used for learning resources is in English. However, basic knowledge of the English language is compulsory in order to access University Studies (part of the mandatory Spanish high school curriculum), therefore the proper understanding of the learning resources is not a common problem. Nevertheless, the UCM possesses its own foreign language school that offers courses for basic to advanced learning of English and other languages, translation services or additional support to students and members of the UCM community if needed.

6.1.2 Procedures for access and use of learning resources taught to staff and students

At the beginning of the first academic year, the FVM organises a welcome week for newly enrolled students. Throughout this week, students are provided with guided tours and orientation programs to become acquainted with all the available resources. Among other information, a brief explanation on how to access the FVM VC, manage the institutional e-mail address and acquire the Smart University





Card (TUI-UCM) is provided. This information is also reinforced through the Mentoring Program for new students. Furthermore, the library offers specific user training for undergraduate students, focused on information management: scientific resource searches, selection, evaluation, ethics, and communication, which are rewarded with 1 elective ECTS. In addition, tutorials and learning materials are published on the <u>FVM library website</u>.

For both students and staff, regular IT and on-line training courses are available through the UCM as well. These courses are periodically offered synchronously or asynchronously through the various continuing education e-platforms or in person classrooms. The UCM IT Dept also assists with individual queries in addition to providing ample information and assessment tools for faculty personnel, staff and students in their <u>website</u>.

Each member of staff is automatically given access to all the learning resources as soon as the employment contract is signed. An e-mail address is set up and access to IT services is granted with an access code and password. The IT helpdesk attends queries and provides orientation on central e-learning resources.

The FVM library also offers specialised on-site and virtual courses on learning resources, tools for bibliography management, open science repositories, and copyright licenses, among others. Additionally, the UCM library has developed an individualised attention service by e-mail for students, teaching, and research staff. Queries are answered within a maximum period of 24 hours except on weekends and holidays. For personalised attention, an appointment can be requested virtually or in person in the FVM library.

Learning resources pertaining to specific subjects or learning skills are available in specific Depts teaching facilities within the FVM, or at the VTH under the supervision of trained staff, teachers and personnel when pertinent during the course of the subjects, practical sessions or upon petition to the subject coordinators.

6.1.3 Learning resources provided by the Establishment are decided, communicated to staff, students, and stakeholders, implemented, assessed, and revised

The selection and deselection of holdings in the UCM library are governed by a Collections Policy based on the current needs of researchers, teaching staff, and students. Library coordinators and Vice deans of the library of each Faculty liaise with the UCM library on acquisitions. The decisions adopted by the library Committee of UCM, and the Electronic Resources and Open Access Subcommittees of UCM are regularly communicated by the FVM to the members of the Establishment and students.

The library has a close connection with the academic staff of the FVM. Staff is involved in making developmental plans for the library employing *ad hoc* consultations, and in selecting material for acquisition regularly through the library Committee of the FVM. This committee is constituted of representative members of all Depts and DS of the FVM, where students are also represented. It oversees implementing, assessing, and revising the library policy.

The acquisition of new resources reflects the demand expressed by both academic staff and students and includes the recommended bibliography for the different subjects. Students and staff can submit requests for new monographs on-line as well. The library staff of FVM updates the literature each year and the revisions including the proposal of recommended bibliography for the different subjects which need to be approved by the FVM library Committee based on the annual library budget. All literature orders for print or electronic media are managed by the FVM library. This literature and new acquisitions are available on the website. Almost all monographs are available for loan as well.

Based on the UCM policy, as a public library, any accredited external user can consult the UCM funds. The members of the University community with the TUI-UCM card may borrow it according to the





 $\begin{array}{l} {\tt Universidad\ Complutense\ Madrid}\\ {\tt Facultad\ de\ Veterinaria} \end{array}$

rules described on the library's <u>website</u>. In addition, other users have full access to the library under the conditions of the agreement.

Regarding the acquisition of new software needed for teaching, the teachers responsible for the subjects contact the computer technicians, who define the best way to acquire it depending on the licence and inform the VC Coordinator for the FVM. Software is licensed and provided by the UCM.

Decisions on the introduction of major campus-wide systems and technologies are managed by the Vice-Rectorate of Technology and Sustainability, based on the recommendations provided by or solicited from the different teaching faculties and facilities of the UCM, IT Services and the VC Coordinators, among others. The procedure for recording new requirements is defined and explained in an internal IT Requirements Management Guide. Innovations are approved by the requesting Dept or the relevant decision-making body (e.g., IT Steering Committee). Tutorials and user documentation are adapted in parallel with this process.

Information on IT changes is disseminated through various channels in diverse ways (e.g., social media, direct personal e-mails, website, e-learning platform), but most notably through the IT website and the VC Management and Coordinators, bestowed with the task of distributing the information to Faculty governments, pertinent staff, teachers and students. Each Faculty has an assigned VC Coordinator in constant communication with the Vice-Rectorate and up-to-date with the latest evolutions concerning the VC. Additionally, telephone helplines are set up to answer questions about central e-learning and IT resources.

The FVM library also disseminates information through FVE Library Committee, and social networks such as Facebook, Instagram, and X or by a playlist on YouTube where small and useful videos and tutorials can be found.

Needs for learning resources specifically pertaining to certain training areas or imparted subjects (dummies, animal models, anatomic models, virtual material, on-line atlases, etc.,) are decided by the teachers, researchers, or Depts, in charge of the educational needs and innovative ideas, according to the needs of the subject, specific training within the curriculum. In some instances, these resources are elaborated and financed through granted innovation projects previously presented to the UCM.

Standard 6.2. Organisation of FVM library and human, physical and electronic resources.

Staff and students must have full access on site to an academic library administered by a qualified librarian, an IT unit managed by a qualified IT person, VC, and 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 FVM core facilities by Wi-Fi and from outside the FVM through a hosted secured connection, e.g. Virtual Private Network (VPN).

6.2.1 Main library of the Establishment

The FVM library is part of the UCM library, the largest Spanish university library. UCM library is a support service for learning, teaching, research, and other activities related to the institutional objectives of the University. It is structured through a unique library system, decentralised into 26 Libraries of all UCM-Establishment, Maria Zambrano library, and the Historical library; all of them coordinated through the library Directorate and the Central Services, which are responsible for the unification of criteria, coordination and standardisation of the processes and services (UCM Statutes, article 202). The libraries of Faculties, Schools, and Institutes are interconnected through the UCM data network. To harmonise cooperation, the Heads of Health Sciences Libraries have established a forum for discussing professional matters and for subscribing databases which are necessary for different academic institutions. Within those consortiums, the UCM and the FVM have access to several resources, such as Web of Science, Science Direct, Pubmed, Scopus, FSTA Direct, Journal





Citation Reports, Medline, Elsevier Freedom Collection, etc. The FVM library has a split management: financially it reports to the Faculty Manager and functionally to the Director of the UCM library.

FVM offers a Teaching and Research Support Service for students, teachers, and researchers to help them throughout their academic life.

- FVM library helps in uploading their bibliographies, bibliographic and information services, search services, and guidance for the six years of research evaluation (727 requests in 2022).
- Institutional repository, <u>DOCTA Complutense</u>, which is a good means for promoting the Open Science in the FVM, covering PhD dissertations, articles, conferences, etc., in full text. According to the institutional Policy of Open Access to Scientific and Academic Production of the UCM recently, the Establishment has approved the regulation necessary for the deposit of the MTh and GTh of the FVM in DOCTA Complutense. Since 2021, the FVM also has a new <u>Open-Access platform on the UdcVet</u> website to visualise the scientific papers published by the researchers of the FVM month by month.
- <u>Scientific Production Platform</u>. It is the reference portal intended to collect the scientific production of the UCM with a double function: the study and analysis of data to improve its dissemination and visibility and the support to teachers in the usual and necessary processes for the improvement of the presence and impact of UCM research. It also aims to provide help and support to the management agents and the university community regarding the scientific activity carried out by our university. The update of such information is performed by the FVM librarian staff at the request of researchers.

-) **Staff (FTE) and qualifications:** there are 7 full-time employees at the FVM library (1 director, 1 reference librarian, and 5 library assistants). The library staff keeps its knowledge up to date through regular training.

-) **Opening hours and days:** the FVM library opens from Monday to Friday, from 9 a.m. to 9 p.m. It is closed during Christmas and Easter. Since 2013, the opening hours have been extended until 11 p.m. during the exam periods. The schedules are available on-line. During the examination period, the María Zambrano library extends its opening hours to accommodate students as well. The library offers 2,150 reading spots, and students can monitor the <u>current occupancy and forecast for upcoming hours in real-time</u> through the website or by using the UCM library Occupancy app.

-) Annual budget of FVM library from specific faculty funds is $14,000 \in$. It is a part of the UCM library budget with more than 3 million \in (3,646,744.66 \in in 2022). An average of 1 million \in of this budget is aimed at the acquisition of electronic resources for all UCM libraries.

-) Facilities: the library is located in the FVM central building and occupies a total area of about 1,000 m^2 , divided into the following sections: a general reading room (325 m^2 ; 101 reading places), a multipurpose room (136 m^2 ; 44 reading places), a storeroom (306 m^2), a staff working area (70 m^2), three rooms for group work (72 m^2 ; 11 reading places) and 2,855 m of shelving.

-) Equipment: there are 4 computers (one adapted for visually impaired students, with software: Jaws and Magic/ZoomText), 11 laptops to search for bibliographies and other teaching resources, and a scanner for the students. The number of computers is sufficient since most of the students bring their laptops or tablets to the reading room. Even so, since the 2021-22 academic year, the UCM library has offered the home loan service of laptops for 7 days with more than 700 laptops available for students. Power supply and Wi-Fi connection to the internet are available for the FVM community.

6.2.2 Subsidiary libraries

There are subsidiary libraries in almost all our Dept/DS. The FVM library is responsible for processing materials for departmental libraries, thus every new volume is included in the open public catalogue (<u>CISNE</u>). Except for a few manuals used daily at laboratories, books are available for borrowing or





inter-lending from the Dept/DS as well. Additionally, our students can use any Faculty library from UCM. Given the proximity to the FVM (400 m), capacity (2,100 reading places), and opening hours (24 a day during exams), the most visited is the María Zambrano library. It has 4 floors in four different spaces including a group work room that is a multipurpose space, intended for students with tables of different sizes and shapes which can be reorganised depending on the needs. Teachers have the option of using this room for presentations, events, and training as well. With self-loan machines and self-loaner laptop cabinets. Wi-Fi connection and plenty of outlets to work with own devices (or charge the cell phone). A position adapted for users with functional diversity is available.

6.2.3 IT facilities, qualified IT personnel and the e-learning platform

There are 2 computer technicians at the FVM to support students and academic staff. The FVM has 3 computer classrooms with a total of 72 computers. The students have free access to these facilities whenever they are not being used for teaching activities, which can be previously checked using a QR code. Basic software (Microsoft package) is installed on computers, as well as statistical software, such as SAS and R, and any other computer programs required for the regular development of subjects. Additionally, the UCM IT Dept also offers technical assistance for students.

The UCM provides a VC that enables access to a diversity of learning resources within virtual spaces and restrictions granted to the users with access. The VC is a Moodle platform that is regularly upgraded and the current version for course 2023-24 is 4.1. The various environments are accessed through a virtual portal or gateway (PACV), designed by IT techs from the UCM. These environments provide e-learning platforms for undergraduate, postgraduate and continuing education studies and courses. This technology is readily available through a diversity of electronic devices, including laptops, tablets and mobile phones. Users may access the UCM VC by validating their credentials (username and password code) and fulfilling any of the variety of provided tasks according to their assigned roles (student, teacher, guest, etc). UCM teachers have the capacity of switching roles to "student" in order to test the tasks. Spaces, users and courses integrated within the Moodle platform are managed within the gateway. The e-learning platform provides numerous possibilities for evaluation, on-line gamification, tasks, groupworks, on-line classroom design, and many more. The UCM provides ample information, instructions, updates, courses, etc., for the adequate use of this platform. Complete information regarding the use and management of the VC is accessible in the Gateway. A self-training course on the VC is provided by UCM library. Additionally, the FVM just as all other UCM faculties, has a VC Coordinator accessible for problem solving and assessment.

Every subject is provided with a Campus Space in which students and coordinators are enrolled electronically. In the FVM, the majority of subjects and practicals are coordinated through the VC and make everyday use of the numerous activities and applications provided through the campus, proving this virtual space an innovative and irreplaceable asset for teaching.

6.2.4 Accessibility for staff and students to electronic learning resources both on and off campus

To use the library services and to access all UCM libraries, UCM students, researchers, and staff need to have the TUI-UCM card. To access e-resources is necessary to be a member of the University community. A valid @ucm.es e-mail account is required for membership.

<u>Wireless Internet connection</u> in the whole establishment is available. The standard wireless speed is 802.11g/n, and works with 2,4GHz and 5GHz bands. The UCM provides a standard, simple wireless access to the internet using the UCM ID and passcode (UCM Wi-Fi), but also belongs to the Eduroam network. Eduroam is the wireless access most recommended for students and instructions and software is provided through the UCM website for students and staff.

Remote access to internet resources (including electronic library resources and learning materials) offcampus is also provided through a safe VPN connection for staff and students. To establish the VPN





connection, it is necessary to have an institutional account. These are the same data that are used to access e-mail or VC.

Standard 6.3: Access to learning resources by the students.

The policy of the UCM is to cover all referenced main subject literature and provide the number of needed copies for students and staff. The recommended bibliography is covered, with an average above 90%. All are available at <u>UCM library website</u>. The FVM library collection is specialised in Veterinary Sciences and FST. It has more than 6,000 copies in free access in addition to an important collection of electronic books and databases in English and Spanish language. Access 24 hours a day, 7 days a week, from any mobile device. In addition to the scientific collection, the FVM library has movies, novels, and essays related to animal issues ("animal literature" collection), dissemination scientific books, and the Old Bibliographical Background collection that comprises 4,355 prints and manuscripts until the 19th Century. Special materials (CDs, DVDs, microforms, maps, etc.) and computer materials (e-readers, laptops, netbooks, external hard drives, USB drives, headphones, etc.) are available. The funds and collections can be consulted on the <u>web</u> of the FVM library.

-) Number of veterinary books and periodicals: there are 39,609 books, 6,348 of them available in the reading room, and 91 hard-copy journals.

-) Number of veterinary e-books and e-periodicals: about full access electronic journals, there are more than 19,000 e-resources through institutional acquisition. Furthermore, there are 160 textbooks in electronic format (70 directly acquired or subscribed by the FVM).

-) Number of other e-books and e-periodicals: there are 90,621 e-books and 37,413 e-periodicals, 106 journals specialised in FVM, and 3,700 thesis.

-) Available electronic information, e-learning courses, and their role in supporting student learning and teaching in the core curriculum: the FVM library offers an above-mentioned introductory course for new students on its use and services. Besides different courses on the use of bibliographic databases (PubMed, Web of Science, Scopus, FSTA), citation tools (RefWorks, Zotero, Mendeley, EndNote on-line, EndNote X7), and the fundamentals of scientific writing are offered continuously to undergraduate students and staff. The participation of the library staff is also required for postgraduate and continuing education programs. Articles can be downloaded for research purposes. In summary, necessary references, on-line literature, e-books, textbooks, etc, are provided for students and staff with unimpeded access for general study, research and other needs, and readily accessible with the TUI-UCM card, valid e-mail, or username and password.

-) Facilities and equipment for development of procedural skills: at this time, the FVM does not possess an independent skills lab facility for the learning resources and equipment for procedural skills. Although, as mentioned earlier, these resources are available and accessible to students through other facilities. Some of these resources include anatomic models, dummies, exploration models and devices. These resources are coordinated by the specialised teaching staff and available for students during their regulated practice sessions. Students who desire more time are also granted access to these resources, prior petition to the subject coordinator. A detailed description of these resources and how they are organised can be found in Area 4, section 4.2.1. Another resource accessible to students is the clinical database Qvet® (see Area 5). Access to this database also proves to be an excellent resource for students to understand clinical protocols and develop discerning and critical skills.

Comments on Area 6

The learning resources of the FVM have proven to be cutting-edge, significantly enhancing student performance during the curriculum and granting excellent skills upon graduation. The policy of FVM has always been to participate and be part of the change based on an innovative model of teaching.





The FVM library and IT staff are completely integrated with the academic staff. They offer periodic workshops related to Graduation/Master/PhD Thesis. The e-learning platform provides numerous opportunities for teachers to express their creativity and has been well received by academic staff. All subjects are coordinated within the platform, and most use it for continuing evaluations, gamification, and other complementary activities that support learning and teaching skills.

The UCM also provides students and staff with <u>on-line computer training courses</u>.

Suggestions for improvement in Area 6

Enhancement, updating and improvement of learning resources is an ongoing necessity. The design of an independent skills lab with specific resources for the practice of developmental procedures and hands-on training for students would be a great asset to support student training.

Regarding the e-platform and on-line resources, greater access to programs and applications more specific to veterinary medicine would be desired. Although the UCM offers plenty of material, the access to programs outside of the university's selection is sometimes limited and therefore it is difficult to explore new options. Furthermore, increased access to university storage space would be advantageous. Many of the required resources, such as photos, videos, and diagnostic imaging, require above-average storage needs compared to other UCM facilities and faculties.



ENROLNENT

Student admission, progression and welfare





Standard 7.1: Student admission progression and certification

Admission procedures are controlled and carried out directly by UCM. Annually, the UCM organises the Pre-University Orientation Days for Health Sciences. High School students interested in enrolling in our Veterinary Degree attend this conference, in which they are first informed about the admission process and in a second session, resolve questions with a representative of the Dean's Office and students of the FVM. The UCM also participates in "Aula" (International Student and Educational Offer Exhibition), organised by IFEMA (Madrid Fair Institution) where students receive specific information about the FVM. In its last edition, this education fair received a total of 2,601 groups of visitors, representing 93,625 students. The distribution of the groups was 51% from publicly affiliated centres, 33% from private education and 16% from subsidised education, so we can assure that it has an enormous diffusion at the national level.

The FVM has been actively participating in the "4th ESO+Empresa" program, an educational initiative by the CM for students in the 4th year of Compulsory Secondary Education at publicly funded schools. This voluntary program is designed to link the educational system and the working world. Through this program, the Faculty welcomes students from various schools and institutes, offering them a glimpse into the veterinary profession. These educational stays at our facilities allow students to observe daily activities and may include the performance of basic tasks, emphasising the educational and pedagogical aspects of the profession. This participation aids students in making informed decisions about their academic and professional futures, while equipping them with essential skills.

In addition, the FVM itself organises an Open House Day for last-year high school students who want to get first-hand information about our Degree. They also consist of an informative talk and a guided tour of the FVM's facilities, during which they can solve all doubts about the Degree course. Many students also write an e-mail directly to the Vice-Dean of Students and the Secretary of the FVM to request information. In either of the above formats, questions are answered directly, and students are also directed to our website, where we have comprehensive and complete information that we strive to keep up to date. All the information about admission, enrolment, degree tuition fees, etc. can be found on the <u>UCM website</u>. Detailed information on the Veterinary Degree can be found on our website.

The FVM ensures the validity of the public information available on the centre's website, which contains relevant and easily accessible data about the Degree for both students and the public. Specific information regarding the development of the Veterinary Degree, including educational programs, learning outcomes, admission procedures and requirements for both national and international students, progression and certification, and the academic calendar, is made public prior to the registration date. This ensures that students have access to the necessary data for choosing their studies and for following the teaching-learning process. Prospective students can access complete information about the access and admission mechanisms, and details of the Degree under the 'Study' tab, by selecting the Veterinary Degree option, where they will find specific information about the characteristics of the Degree and the course's teaching schedule. From the 2021-22 academic year onwards, details about the Degree's teaching can be easily accessed from the title's homepage or from the Teaching Planning tab, where information about theoretical and practical teaching schedules, coordinators of all subjects, teaching guides, and exam calendars for all courses can be obtained. This specific information is published in June of the preceding year so that students have all the data at least 15 days before the registration period begins. Since the 2019-20 academic year, the Faculty's website has included the abbreviated curriculum vitae of the academic staff involved in each degree. In the 2020-2021 academic year, information was added about the structure and characteristics of the faculty members affiliated with the degree, indicating the total number of teachers by category and the percentage of doctors. All information on the Degree's webpage is up to date, its structure allows easy access to it, and is in accordance with the verified report of the Degree.







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Information is also provided about collaborations with institutions and organisations related to the veterinary field. The UCM has a <u>wide array of agreements and partnerships</u> with numerous European universities and worldwide. Additionally, the <u>SICUE</u> program is a mobility initiative allowing students to study at other Spanish universities with assurances of academic recognition.

Once students have been admitted according to UCM regulations (see section 7.3), all information regarding the academic year is available on-line on the website at least one month before enrolment. The Faculty Council, within the deadlines stipulated by the UCM, determines the academic calendar and each Dept organises its activities accordingly.

Student's progression and certification. At the beginning of each academic year, a series of activities are organised for new students: Welcome Days, during which the Dean, on behalf of her entire team, the Library Director and the Head of the Student Secretariat, welcomes new students to the Centre. This is followed by presentations covering important aspects of daily university life such as the operation of the VC, an explanation of the coordination mechanisms of the Degree, an introduction to the Mentoring Program, the importance of Associationism and the student representation bodies, as well as the services offered by the Faculty's library (see Area 6). For several years now, during the first week of the course, a Professional Skills Day is held, specifically aimed at new students. Additionally, each year the Associations Day is organised in collaboration with the Vice-Dean's Office for Students, with the aim of introducing new students to the various associations within the FVM and encouraging their participation in these groups.

Additionally, it is important to note that the FVM has a Mentoring Program, one of the pioneers at UCM. Through this program, experienced students provide guidance and assist in integrating new students, as well as supporting mobility students. Volunteer student mentors receive specific training in mentoring, and following the welcome session, they are assigned 'telemacos' (newly admitted students). It is worth mentioning that the mentors often have previous experience with Erasmus or SICUE scholarships, equipping them with the skills to advise on mobility programs. During the welcome event, this program is explained to the new students, who can voluntarily enroll in the program, and are then assigned a mentor student to assist them with any queries and facilitate their adaptation to our faculty, Degree program, and environment. In the 2022-23 academic year we have also set up a pilot programme of "Academic Mentors", which consists of assigning a lecturer to 1st year students, who voluntarily offers to be available for that student to resolve personal, academic or professional doubts until they have completed the Degree.

Academic certification procedures are managed by the Academic Secretary's Office, which maintains the administrative and student records. In order to graduate, students must comply with all UCM academic regulations. The administrative staff of the Secretary's Office and the Vice-Dean's Offices provide guidance on the most efficient progression based on regulations and student performance. Other UCM counselling units support this instruction.

Standard 7.2: Number of students admitted

As an improvement recommended during the National Degree Accreditation process and in response to the feedback from the EAEVE 2017 report, the number of new entry places in the 2018-19 academic year was reduced, setting the number of new entry places offered at 155. This adjustment has allowed the number of students enrolled in the program to be aligned with the resources of the FVM. It should be noted that the admission system established by the UCM accepts a number of students greater than that requested by the program, set annually by the Centre, to account for the calculated drop in enrollment at the beginning of the year. Consequently, there is not always a correspondence between supply and demand. The Veterinary Degree is one of the most in-demand programs at the UCM, as demonstrated by the high percentage of students applying for admission in recent years. This high demand is reflected in the competitive access mark to the Veterinary Degree at the UCM, which in the



2022-23 academic year was the third highest in Spain (12.260 out of 14). It should be noted that almost nine out of ten new entrants chose this program as their first option, which indicates a strong vocational alignment of the students with the Veterinary Degree.

The data of admission, progress and welfare of students, come from SIDI but public information can be found on our <u>web</u>. The Secretary's Faculty Services and the Statistical unit of UCM provide data on the annual graduate student count for tables 7.2.1 to 7.2.5.

 Table 7.2.1 No. of new veterinary students admitted

Type of students	22-23	21-22	20-21	Mean
Standard students	163	151	149	154.3
Full fee students	-	-	-	-
Total	163	151	149	154.3

Table 7.2.2. No. of veterinary undergraduate students

Year of programme	22-23	21-22	20-21	Mean
First year	163	151	149	154.3
Second year	165	161	169	165
Third year	162	163	189	171.3
Fourth year	169	202	200	190.3
Fifth year	327	338	335	333.3
Total	991	1015	1042	1016

 Table 7.2.3. No. of veterinary students graduating

Type of students	22-23	21-22	20-21	Mean
Standard students	146	152	149	149
Full fee students	-	-	-	-
Total	146	152	149	149

Fable 7.2.4	Average	duration	of	veterinary	studies
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Duration	% graduated students in 22-23			
0	26%			
+ 1 year	43%			
+2 years 13.70%				
3 years or more	13.70%			
3.6% correspond to students joining from other universities				

Table 7.2.5. No. of postgraduate students registered

			0		
Programmes	22-23	21-22	20-21	Mean	
Interns	26	27	27	26.6	
Residents	3	3	3	3	
PhD students	210	205	207	207.3	

Standard 7.3: Selection and progression criteria

-) Selection criteria: The <u>website</u> outlines the mechanisms for access and admission, detailing the criteria and procedures for both national and international students. Students in Spain have the right to select any public university. In the "Single University District," there are multiple veterinary faculties available for admission based on academic records. After finishing the Baccalaureate, students must pass the EvAU. There is no additional specific exam to enter the FVM. Access to Veterinary Degree at the UCM is regulated by a *numerus clausus* system: a certain admission rate is established attending to the number of students to be admitted (155) and the number of students demanding access. The EvAU includes two phases: a general phase (which is compulsory for all Baccalaureate students; maximum 10 points) and a specific phase with subjects related to the area of interest (which is voluntary and allows improving the mark up to a maximum of 14 points). Considering the high admission mark needed to access the Veterinary Degree, all students must pass both phases.

The final mark is calculated according to the following formula:

Admission mark = 0.6*NMB + 0.4*CFG + a*M1 + b*M2

Where NMB = Average mark corresponding to 1^{st} and 2^{nd} years of the Spanish Baccalaureate; CFG = EvAU General phase mark; M1, M2 = The two best marks of the subjects of the EvAU specific phase; a, b = weighting coefficients of the subjects of the specific phase.

In the case of International High School and Higher National Diploma students with recognised secondary studies the item (0.6*NMB + 0.4*CFG) is replaced by the high school average score. In addition to standard procedures, there is a percentage of places reserved for students with special situations: 1% for university graduates, 5% for students with a degree of disability equal to or higher than 33%, 3% for high level and high-performance athletes, 3% for students over 25 years old, 1% for





students over 45 years old, and 1% for over 40-year-old students with accredited work experience.

The cut-off marks to access the Veterinary Degree have increased progressively over the years and have varied from 12.236 in the 2020-21 academic year to 12.260 in the 2022-23 academic year, with 12.267 in the 2023-24 academic year.

-) Policy for disabled and ill students: Following RD 822/21 of 28 September, 5% of available places for new students must be set aside for disabled and ill learners. They must present an official certificate of disability, proving a rating of 33% or higher. Applications will be processed according to the same criteria as non-disabled applicants. The <u>Office for the Inclusion of People with Diversity</u> (OIPD) at the UCM offers personalised attention to all members of the University Community with functional diversity/disability, specific, and personal needs. It is a space for support, accompaniment, listening, orientation, assistance, training, and advice. Additionally, we have an FVM OIPD Coordinator to support diversity and promote inclusion, since our goal is to create a more inclusive learning environment by providing necessary accommodations and support. If a student becomes ill during the course, the students are required to contact the Vice-Dean of Students and/or the OIPD Coordinator to manage their specific needs.

-) Composition and training of the selection committee: Admission is based on the mark obtained in the EvAU and therefore no specific selection committee is required. Details in section 7.3.1.

-) Appeal process: Applicants who are <u>not selected</u> and those who <u>disagree with their mark</u> may submit an appeal to the examination Council for review through the corresponding websites.

-) Advertisement of the criteria and transparency of the procedures: The standard admission procedure depends on the UCM and is fully advertised and transparent. All the information is published <u>on-line</u>. Results of the admission procedure are also communicated on-line at the same time for all the public Universities of Madrid, and personally to all the applicants.

-) Admission procedures for full fee students: The admission procedure for full fee students is not applicable in FVM.

-) Adapts the number of admitted students: In response to feedback from the EAEVE report and driven by our commitment to quality education, the FVM has actively endeavoured to align the number of admitted students with available educational resources and our financial planning. Despite limited autonomy due to National Authorities' regulations, significant progress has been achieved since the re-accreditation in July 2017. The Faculty Council proposed a reduction in the number of new admissions, which was approved by the UCM Rectorate and has since been maintained. This adjustment ensures that student intake is consistent with our teaching capacity, thereby upholding a high standard of education and considering the labour market demand for veterinary graduates. We conduct annual evaluations with the Academic Authorities of UCM to balance student numbers with available resources, a strategy that has also led to the acquisition of additional financial resources, as outlined in Area 2.

-) Prospective number of new students admitted by the VEE for the next 3 academic years: The described adjustment ensures that the intake of students aligns with our teaching capacity, thereby maintaining a high standard of education. The estimated number of places for incoming students over the next three years will be maintained at a constant level, with no plans for expansion.

Standard 7.4: Policies and procedures on disabilities or illnesses applicants

The <u>OIPD</u> at the UCM offers personalised attention to all members of the University Community with functional diversity/disability, specific, and personal needs. At the Welcome Days and in the days following the incorporation of the students, we inform them of the existence of the OIPD. The students contact the professionals in the office in person and, after evaluating the particular case, they indicate to the coordinator what needs or adaptations the student requires, both in their teaching and in their assessment. The aim is to allow students with disabilities to participate in all the activities carried out





in the different university structures, from the admission procedure to graduation. The services provided are pedagogical and specialised tutoring to provide and facilitate study skills and to identify alternative methods of taking exams, classroom and timetable planning to facilitate access to classrooms and other University facilities. In a collaborative, the FVM OIPD Coordinator, and the OIPD Office at the UCM work diligently to adapt the program for applicants with disabilities or illnesses. This collaborative approach ensures that the program is accessible and inclusive, while maintaining the high standards of competency expected from our graduates. The provision of support aspires to ensure that all students can satisfy the ESEVT DOC requirements by the time they graduate.

Standard 7.5: Students permanence and progression

To align the right to study with the proper use of public funds, the implementation of the EHEA requires the establishment of mechanisms for the continuous improvement of educational provision based on the results achieved. The UCM regulations are consistent and can be taken on the <u>web</u>.

7.5.1 Progression criteria

As indicated in the UCM regulations, first-year students who have not passed any basic or compulsory subject between the ordinary and extraordinary exams, without a justifiable reason, will not be able to continue their studies at UCM. There are exceptions if justified reasons are documented, such as serious illness of the student or family member, death of a family member, socio-economic or work-related reasons, or other reasons of special consideration. There are two ordinary exam sittings per year for each subject. If students fail these two sittings, they can use up to 4 additional exams. The student must have passed a minimum of 70% of ECTS to be enrolled in EPT, Practical Rotations and GTh. They cannot present their GTh until they have passed all the subjects of the Degree.

7.5.2 Remediation and support for students who do not perform adequately

For students who need learning assistance, tutorial sessions are the best way to offer them direct personalised guidance. The teacher offers orientation and advice on all teaching aspects which may improve the teaching-learning process. All academic staff have a specific tutoring schedule that must be observed (minimum 6 hours per week). Students belonging to the new "Academic Mentoring Programme" can also turn to their personal mentor for additional support.

There are other systems in the UCM to favour the permanency of the students:

- An application for the cancellation of a sitting can be presented to the Dean, accompanied by the appropriate supporting documents or certificates.
- If a student fails 4 ordinary sittings, he has the right to be evaluated by an Examining Board for the fifth and sixth examinations.
- Students who have failed all six regular examinations of a subject can apply to the Rectorate for an extraordinary exam (7th sitting).

7.5.3 Criteria and transparency of the procedures

The <u>FVM</u> and <u>UCM</u> maintains clear and transparent communication in its advertising to students regarding criteria and procedures for academic progression and professional aptitude. This information is well-documented and easily accessible at the corresponding websites.

7.5.4 Rate and main causes of attrition

The dropout rate (17.07%) has slightly decreased compared to the previous year, yet it remains high in comparison to the estimation in the Verification Document ANECA, possibly due to the Degree's difficulty. According to SIDI, there have been 103 dropouts in the last five courses, with the average number of years enrolled by these students being 2. This may indicate that students enter the faculty with a misconceived idea of the Veterinary Profession, or that the commitment required to attend all theoretical and practical academic activities is high, and after the first two years, they choose to leave. Additionally, those responsible for the Degree are aware of its difficulty and the density of knowledge imparted. To improve this, Veterinary Faculties in Spain are working on the pertinent modifications





in the curriculum to extend the duration of the Degree by one year and review the presence requirement, reducing the pressure over the students. The dropout rate is an academic performance indicator that expresses the degree of student discontinuity in a program, but it should be considered that the interruption of studies may not be a measure of definitive abandonment since the indicator does not distinguish whether it is a temporary dropout or a change of university. Despite this, it is worth mentioning that among all the Faculties of UCM, Veterinary holds the fourth position in the lowest dropout rate, possibly linked to the welcoming and mentoring programs implemented by the Centre. Furthermore, the escalation in tuition fees coupled with a decrease in scholarship availability could be contributing factors to the heightened dropout rates, especially during and in the aftermath of the pandemic. UCM has set up <u>socio-financial aid</u> to help these students to continue their studies.

7.5.5 Assessment and revision of admission procedures and criteria

Admission procedures and criteria are common for all the UCM studies and are established by the Ministry of Education, Culture and Sport and the CM. The number of admitted applicants is explained in Standard 7.3.

Standard 7.6: Exclusion of students from the programme

The <u>QAS of the UCM</u> establishes explicit mechanisms for student exclusion and transparent appeal processes, as outlined by the <u>Ley 3/2022 de Convivencia Universitaria</u>. These mechanisms ensure a harmonious coexistence within the university setting, promoting alternative conflict resolution and a disciplinary regime for students based on democratic values, equality of rights, inclusion, and peaceful conflict resolution.

-) Mechanisms for the Exclusion of Students:

- Initiation: The process begins either on the initiative of the Rector's office, upon request from another body, or due to a complaint. An instructor is appointed, and the implicated parties are notified of the facts, potential classification, proposed sanctions, and the option for mediation.
- Investigation: The instructor conducts necessary investigations to determine facts and responsibilities, including statements from involved parties and evidence collection. Parties have ten days to present arguments and propose evidence.
- Mediation (Optional): If mediation is chosen, the process is suspended and referred to the Convivencia Commission. If an agreement is reached, the case is archived; otherwise, disciplinary proceedings continue.
- Charges: Absent mediation, the instructor formulates charges, detailing alleged facts and potential sanctions. Involved parties have ten days to respond.
- Resolution Proposal: The instructor proposes a resolution, specifying proven facts, legal classification, infractions, responsibilities, and proposed sanctions. The implicated parties may present their defence.
- Final Resolution: The competent body decides on the instructor's proposal, providing a motivated resolution that addresses all raised issues.
- Simplified Procedure for Minor Offences: A simplified procedure can be established for minor offences.
- Annulment of Degrees: If a degree is fraudulently obtained, the university may declare it null.

The disciplinary process at UCM, including exclusion decisions, adheres to principles of legality, nonretroactivity of non-favourable sanctions, presumption of innocence, proportionality, and statute of limitations for offences and sanctions.

-) <u>Appeal Processes</u>: The resolution specifies available legal recourse in line with common administrative procedure law. Final resolutions include a fifteen-day period for implicated individuals to present any relevant arguments in their defence.

Standard 7.7: Support the physical, emotional and welfare needs of students.





7.7.1 Services available for students

The different services available for students in the FVM are coordinated by the Office of the Vice-Dean for Students. This office works closely with the Student Secretary Office, which is responsible for admission, registration, and any other administrative matters, both for undergraduate and postgraduate studies. Students can convey their needs directly to the Office of the Vice-Dean for Students. Both at UCM and within the FVM, there are many information and support options available for enrolled students. The offerings are grouped, according to the problems they address, into different offices and centres. At the Welcome Days (see 7.1 and 7.4), new students are additionally informed about the existing services at the FVM and UCM:

Services offered by FVM:

- <u>Mobility Office</u> informs and gives support to all students, both UCM and external, interested in national or international mobility and to give support to those who are doing it.
- **Professional Orientation Office** of the COLVEMA, which, in collaboration with the FVM of the UCM, aims to serve as an intermediary between private companies and students in the last years of the Veterinary Degree. Through a system of information and advice about the job market, internships, etc., it ensures students a first introduction to the working world and guidance towards the different current professional opportunities. It has an office in the FVM.
- **Pre-incubator FST-Vet** offers support for entrepreneurship. With the assistance of <u>Compluemprende</u> entity, provides training and service to all students who want to shape and take their ideas forward.
- Mentoring Program and Academic Mentors are described in standard 7.1.

Services offered by the UCM:

- **Sports facilities** are available to students with courts and pitches for all sports, swimming pools, gyms, etc.
- **OPE** provides information on professional internships, job placement, and career guidance.
- **Compluemprende** informs about possible support for business initiatives.
- Scholarship Service: Where all the information related to aids for carrying out university studies can be obtained.
- **Social Council**, offers information on the employment situation of the latest graduates of each degree.
- Office of International Relations, provides information and support to students who wish to participate in mobility programs between universities in different countries.
- **Student House**, space where the student can participate permanently, attending to the different areas of their academic, professional, and personal life. It offers a broad monthly program of activities, initiatives, and proposals aimed at enriching the social and cultural life of the UCM student.
- **Diversity Unit**, a group of different offices, services, and collectives of the UCM related to Functional Diversity, Sexual Diversity and Gender Identity, Socio-Cultural Diversity, Service Learning.
- Equality Unit, primarily focuses on advising, coordinating, and evaluating initiatives related to the UCM Equality Plan. Its efforts are dedicated to integrating gender perspective across all equality-related functions, involving strategic guidance, coordination of corresponding actions and programs, and assessing their impact on gender equality promotion within the university. Additionally, the Unit processes complaints and claims related to the Protocol for Sexual and/or Sexist Harassment and leads the Technical and Guarantee Commission of the Protocol.
- **PsiCall**, a psychological care service that utilises telecommunication methods, specifically designed to meet the psychosocial needs of students at the UCM. The primary means of communication for providing this service varies depending on the nature of each request and the preference of the callers, with telephone being the main tool for PsiCall, supported by chat





and e-mail. It offers a rapid response to urgent issues and provides guidance, counselling, and psychological care. The care team consists of a group of professional experts in emergency psychology, disaster response, and telephone assistance, with experience in clinical practice.

• **Programme for high performance athletes** in order to help these students to reconcile sport activity and academic studies.

All these UCM Offices have a coordinator in each Faculty, in FVM being the Vice-Dean for Students. A health, accident and liability insurance policy are included in the registration fees. The Faculties of the UCM that have healthcare activities offer <u>special services</u> to our students such as Dental Clinic, Optical Clinic, Physiotherapy and Podiatry.

Clubs and Associations at the FVM:

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Facultad de Veterinaria

- Parallel activities of our students through clubs and associations are prominent. At present, 11 very active associations are established in the FVM. The student associations are located in 7 rooms in Building-B and can use all the facilities of the FVM for their activities.
- Student Delegation is composed of the elected student representatives at the Faculty Council and Student representatives. These students have a relevant role in the different strategies of QA, as explained in Area 1.

7.7.2 Description of the mechanisms for resolution of student grievances

The QAS offers a series of mechanisms to deal with the resolution of student grievances. Included in these mechanisms is the access to a complaints mailbox which students can access anonymously. Semesterly follow-up teaching meetings for each course grant the possibility for students to freely express all their problems and disagreements to the teachers and coordinators in order to try to solve them as soon as possible. Additionally, each office at the UCM has an assigned a coordinator in each faculty (such as the OIPD coordinator), and the Vice-Dean of Students serves as a liaison in the FVM. Students can approach the Vice-Dean or these coordinators in cases of complaints related to their physical, emotional, and well-being needs. Each office, including those focused on equality, diversity, and the OIPD, provides direct contact systems for students who prefer this method of communication. The UCM has also developed the <u>Coexistence Guarantee System</u> for coexistence issues (problems of discrimination, violence, inclusion, etc.). All of these mechanisms provide resources for students that enable grievance resolution. If there are any problems or grievances that cannot be resolved internally, the issues are directed to the UCM Ombudsman, which is a source of guidance for the university community. The <u>Office of the University Ombudsman</u> encourages collaborative dispute resolution whenever possible, mediation services and offers legal advice.

Standard 7.8: Mechanisms for student suggestions, comments, complaints, and needs.

In FVM the relationship between students and teachers is very easy and close. That is why if the students need to file a need, complaint, etc., they can directly convey their concerns to the Office of the Vice-Dean, the Coordinator of the Degree, or the subject coordinator, directly or through teaching follow-up meetings. On a formal level, students can express their needs and concerns through their delegate for each academic year group and/or the Student Delegation, which is composed of elected student representatives serving on the Faculty Council. These students play a significant role in various QA strategies.

As part of its QAS, the FVM has established a complaints and suggestions service that is accessible to all personnel to improve the degrees offered. This procedure involves information collection, analysis, and problem resolution at various levels. The FVM utilises multiple mechanisms to gather improvement suggestions and needs, including teaching follow-up meetings, direct verbal suggestions to QAS members, the Student Delegation, and the <u>QS Box</u> on the Faculty's website. The QS box is an open form, accessible to both the university community and the public, allowing for personal or anonymous submissions, with confidential handling of information.

All information collected through these channels is analysed by the QAS, taking necessary actions for


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resolution, aiming for continuous improvement in training satisfaction.

Comments on Area 7

The dropout rate during the study period may be due to a lack of proper understanding of the veterinary profession and what the preparation implies. If students were truly aware of the demands before admission this would help them make more mature decisions. The Orientation and Dissemination unit of the UCM has organised Open Door Days with the purpose of better informing candidates on the various degrees offered by the university, including Veterinary Medicine. This initiative works along the lines the FVM is hoping for a better understanding of the profession and will help reduce the dropout rate. The dropout rate and the average duration of Veterinary studies at the FVM are similar to those of the Spanish Conference of Veterinary Faculties (national average of 6.8 years). Our studies are demanding, but the learning environment is pleasant and our students gain a good and solid academic background.

The number of students is now stable and adequate to our resources. Other factors, such as the huge drop in the birth rate in Spain in recent decades and in the near future, as well as the creation of new private faculties in our region reinforce our projections.

Suggestions for improvement in Area 7

A rational approach of veterinary education in relation to the requirements of the veterinary profession and society in general is also needed. A control system of the student admission (qualifications and profile) in all the Spanish Veterinary Faculties based on a critical analysis, such as a specific evaluation protocol for admission, would be desirable.

In recent years, the Faculty has taken the support of students and staff in their health and well-being very seriously, but assessments of the emotional state of our students and colleagues suggests further work on this aspect is needed.



ASSESSMENT

Student assessment





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Standard 8.1: General and Specific student's assessment strategies

Fair and effective assessment is a constant concern of our teaching staff because we believe that it is a very important part of the learning process and its direct consequence is the accreditation that students have achieved the required academic results and the necessary competences. This strategy is decided by the same bodies involved in teaching planning and is annually reviewed and approved by the Faculty Council. An important fact is that prior to their approval, the dates of the exams in the ordinary and extraordinary calls, are sent to the student representatives so that they can send us their comments. Once their suggestions and changes have been incorporated, the timetable is approved by the Faculty Council. The time required for assessment is expressed in ECTS and included in the syllabus, and the full procedure, dates and conditions are made available to students prior to enrolment. Most subjects combine continuous assessment of the student's day-to-day activity with the evaluation of supervised works, written exams to assess theoretical knowledge, and specific exams for practical skills. We have also included rubric-based assessment of learning and competences, as well as the logbook for a fairer and more effective evaluation by the teachers, but also for the students to monitor their own learning. Many subjects also include mid-term tests. With all the assessments carried out, the teacher has the tools to be able to certify that students who pass the subjects have acquired the knowledge, competences, and skills directly related to them.

Specific methodologies for assessing the acquisition of:

- **Theoretical Knowledge:** Specific methodologies depend on each subject. Assessment is mainly based on written exams, including short answers, multiple-choice tests, essays, and matching type tests. Theoretical knowledge is also evaluated through continuous assessment, evaluation of supervised works, and questionnaires carried out in the classroom.
- **Pre-Clinical Practical Skills:** Pre-clinical practical skills are primarily evaluated through continuous assessment, written reports, evaluation of supervised work, oral presentations, and exams. Quizzes or tests are also given in class or conducted on-line at the end of each thematic block.
- **Practical exams:** are sometimes conducted on healthy animals, organs, cadavers, patients, or in the laboratory, depending on the subject. They can also be carried out with specific software to manage and solve the proposed clinical case or problem. In these pre-clinical practical skills, we must teach and assess the student's ability to integrate and relate academic and practical knowledge. A positive evaluation of practical skills is required to pass the subjects.
- Clinical Practical Skills: Assessment of clinical practical skills is fully explained in Annex 3.1.8.
- Soft Skills: The assessment of soft skills is embedded throughout various courses across the entire curriculum. Activities like writing comprehensive reports, conducting thorough literature reviews, engaging in oral presentations, and participating in critical debates form a cornerstone of the year-round academic exercises. Students are required to work both individually and in teams. In debates, practical problems or clinical cases are proposed, and students must face their resolution with critical discussion between all the members of the group. This activity, which is common in the whole curriculum, is effective for the development of soft skills, but also for their assessment by the teacher, as the students work in groups, must express themselves in public, solve ethical problems, have to respond to criticism and can demonstrate their ability to face and resolve different situations. As it has been mentioned in other parts of this report, soft skills have a great weight in training and assessment of practical rotations and EPT, with a remarkable impact in the final marks.

A critical element in assessing these competences is the GTh. This project serves as a comprehensive platform where pivotal soft skills are scrutinised and evaluated. During the GTh, students develop skill activities such as planning and carrying out simple research, searching for up-to-date and verified information, synthesising and interpreting data, and refine their written, oral, and non-verbal communication abilities. Additionally, the GTh experience encompasses managing pressure, honing time management skills, demonstrating adaptability, and constructively responding to feedback and





critique from both their academic advisor and the evaluation panel at the culmination of the academic year (more information in Area 10, Standard 10.2).

Standard 8.2: Transparent and Fair Assessment

In case of disagreement with the result of the review, the students can refute their grades before the Dept Councils, and ultimately before the Rector. The specific procedure is fully described in the <u>UCM</u> <u>Student Statutes</u>.

-) Ensuring the Advertising and Transparency of the Assessment Criteria/Procedures: The assessment procedures in our institution are governed by the <u>UCM Student Statutes</u>, guaranteeing transparency and standardisation of the rules that define the rights and obligations of the parties involved in the process. In the description guide for each subject, previously approved by the Faculty Council and published on the website, the assessment criteria are consistently, clearly and transparently described. This includes the types of examination to be carried out, the assessment procedures, their weightings, and the requirements for obtaining a final pass mark. This clear and detailed information is available to students before the enrolment period and is not changed during the course, thus ensuring rigorous transparency in the student assessment process. Official announcements regarding examinations are made on the VC of each subject and include detailed information such as date, time, type of examination, duration, and assessment criteria. For the benefit of our students and by agreement of our Faculty Council, this call must be published 30 calendar days before the date of the examination. The date of publication of the results, must be within 30 calendar days post-examination, and is also specified, so that students can schedule the review of their exams after the results are published.

-) Awarding Grades, Including Explicit Requirements for Barrier Assessments: The grading process is formally regulated by our University and harmonised in the EHEA, with grades being expressed both numerically and with their qualitative equivalents. The grading scale includes Failing Grade (0-4.9), Passing Grade (5.0-6.9), Grade B (7.0-8.9), and Distinction (9.0-10), with the pass mark set at 5.0. Additionally, the "Matrícula de Honor" (Excellent) is awarded for grades equal to or higher than 9.0. The number of students awarded "Excellent" must not exceed 5% of those enrolled in a subject, unless there are less than 20 enrolled students. In the case of students with functional diversity, the OIPD Office evaluates the student's needs and informs the subject coordinator and the Dean about how to adapt the teaching and assessment procedures.

-) **Providing Students with Feedback Post-Assessment and Guidance for Requested Improvement:** Post-assessment feedback is an essential part of the learning process. This includes a review of the examination with the teachers who have taught and assessed the subject, and a system of individual tutorials led by teachers, which are considered effective in monitoring student's progress and providing specific guidance for improvement.

-) Appeal Processes Against Assessment Outcomes: In case the student disagrees with their assessment results, a formal appeal procedure is available. Students can challenge their grades to the Complaints Committee of the Dept concerned, and if necessary, can escalate their appeal to the Rector. The detailed appeal procedure is outlined in the <u>UCM Student Statutes</u> and <u>Spain Student Statutes</u>. All information can be found on the <u>website</u>.

Standard 8.3: Process to review assessment outcomes

-) Students' assessment strategy

The strategy for student assessment in the FVM is a collaborative and systematic process. It starts with meetings between the coordinators and all the teachers involved in the subjects. The proposal then goes to the teaching units and the Dept Council where there is a wide representation of lecturers and students. Finally, it must be approved by the Faculty Council. The whole process ensures that every year, the evaluation procedures are thoroughly reviewed from different angles.





Regarding the examination calendar, a draft is prepared by a representative from the CEMGV. This process is inclusive, with contributions from academic staff and student representatives to ensure a well-rounded perspective. Once the calendar and the assessment procedures are approved, they are disseminated through the FVM website and the VC, ensuring that all parties are informed at least two months before the start of the academic year. This comprehensive approach aligns with the official document of the Veterinary Degree approved by ANECA and adheres to the FVM's QAS.

Regarding the assessment review, at the end of each semester we gather all teachers and students and their delegates, from each course separately, to report incidents and share their opinions and suggestions on the development of teaching and assessment. We believe that these teaching follow-up meetings are a very useful tool to hear the students' point of view and to take into consideration their proposals for changes and improvements when we receive them. On the other hand, every year the coordinators themselves and the Vice-Dean for Quality and the Degree Coordinator analyse and study the results obtained in each subject and in the Degree as a whole to determine whether the assessment process has been correct or whether adjustments are necessary.

-) Link between learning outcomes and assessment design

Our assessment design is intricately linked to the learning outcomes of each course and the overall curriculum. The assessment methods used are specifically chosen and crafted to ensure that all graduates have achieved the desired level of professional knowledge, skills, competences, and attributes by the end of their studies. This guarantees that every graduate achieves the minimum level of competence as prescribed in the ESEVT DOC. The strategy includes a combination of continuous assessment of day-to-day activities, evaluation of supervised works, written exams for theoretical knowledge, and specific exams for practical skills (including personal logbooks), all of which are designed to measure the achievement of the learning outcomes in a comprehensive manner. The teaching objectives with the acquisition of knowledge, and practical and professional competencies, as well as the evaluation systems proposed for their assessment, are detailed for each subject in the corresponding description guides. The outcomes are analysed at the end of each semester in the teaching follow-up meetings as well as in the meetings with course and subject coordinators. An annual report on learning outcomes is prepared by the Dean's Office and presented to the Faculty Council. Based on these results, changes are proposed, discussed, and made in the guidelines of the subject for the following year. This system ensures a constant connection between the expectations and the academic results of our students.

Standard 8.4: Robust Assessment Strategies for Certifying

-) System to certify student achievement of learning outcomes: Subject coordinators, along with subject teachers, are the first piece in the system to certify that students have attained the required practical and professional knowledge and skills. As mentioned, the global assessment strategy of the establishment ensures that students who pass their subjects have acquired the necessary knowledge, competences, and skills. The assessment criteria are aligned with the ESEVT DOC, ensuring that graduates achieve the required level of competence. The results obtained are then globally analysed by the Degree Coordinator and the Vice-Dean of Quality, who after a thorough study prepare a statistical analysis of data on dropout, percentage of students taking the exams, success and performance rates, years of permanence in the Degree, etc. This report is presented to the Faculty Council for further analysis and discussion, and improvement measures are proposed.

-) Strategy to encourage students to take an active part in the learning process: Generally, our students start the Degree highly motivated and very active. Therefore, we must focus on them being able to appreciate their personal and professional growth and the acquisition of skills. The methodology of active learning and continuous assessment by teachers and self-assessment through forms (with subsequent feedback), have encouraged the active participation of students in their own training process. E-learning has opened a dynamic and attractive workspace, in which the current







student feels very comfortable. The use of a variety of forms during and after classes, supervised assignments, oral presentations, and practical exams, allows students to actively participate and see what their own learning and improvement process is like.

-) Committee Structure for Decision-Making on Assessment Strategy: The assessment strategy's decision-making process begins with the Dept Councils proposing evaluation procedures which are then discussed in coordination meetings and approved by the Faculty Council. The involvement of academic staff and student representatives in these discussions ensures a collaborative approach. This structure facilitates the ongoing evaluation and revision of the strategy, ensuring alignment with the programme's learning objectives and encouraging student engagement in the learning process.

Standard 8.5: Assessment of the acquisition of clinical skills and DOC

We have adopted the ESEVT DOC for full compliance of the curriculum with the DOC approach, in order to ensure that all graduates achieve the required level of competence at the end of their studies (Appendix 2.2). All the subjects from the start of our Degree are closely related to the learning objectives and DOC, and all of them are represented in the activities that students carry out in the 10th semester. Therefore, the correct assessment of Clinical Rotation, Animal Production Rotation, and Food Hygiene, Safety and Technology Rotation, as well as the EPT and GTh, ensures the acquisition of the specific skills included in the ESEVT DOC. Assessment has different methodologies depending on the activity and subject, but, in particular, the personal logbook is a very important element. It has been designed for the assessment of specific skills included in the ESEVT DOC. Many teachers are involved in the last semester, and the daily monitoring of the logbook ensures that both the teacher and student are aware of the skills already acquired and those that remain to be worked on. It is a very effective tool for learning, planning, monitoring and evaluating the different activities, as well as to analyse the outcomes of the assessment process. In relation to EPT, the assessment is independent and is described in detail in Standard 3.8. The individual work carried out by the students in the EPT report and in the GTh, always under the supervision of their tutors, also completes the skills and competences of our students. The assessment of these activities is done individually, and by specific commissions using rubrics, to ensure validity, reliability and fairness among all students. With the alignment of assessment with ESEVT, and considering the wide variety of tests the student is subjected to, and the number of teachers and professionals involved, the overall positive assessment of all the competences guarantees that our students have achieved the minimum level of DOC.

Comments on Area 8

In our constant efforts to improve our procedures, we have slightly modified the assessment of the Rotations in order to be as effective as possible in the evaluation of the competences. We have also updated the rubric and assessment of the EPT, as well as for the GTh. The evaluation of external EPT tutors is highly appreciated by internal and external stakeholders. Their collaboration is recognised annually at FVM, together with UCM.

Suggestions for improvement in Area 8

We are studying the implementation of the logbook from the first year, so that students can certify all the skills acquired during the Degree. The results of the EAEVE working group on student logbooks would be of great help in this respect.

We will continue refining and advancing our rubric assessment systems, to ensure objectivity and transparency in the evaluation of student performance.

The progressive increase of simulators and the implementation of skill laboratories will make it easier for the student to acquire the skills faster and more autonomously, and to be able to put them into practice in the clinic later on, safeguarding the well-being of all patients.

STAFF







Standard 9.1: Qualified staff, national and EU regulations and teacher training programme

At the FVM, our dedication to delivering a comprehensive veterinary program is sustained by the expertise and qualifications of our staff. Central to our educational approach is the integration of upto-date knowledge, predominantly facilitated by veterinarians deeply integrated with the academic sphere and responsive to the dynamic nature of the veterinary profession. The hiring of teaching staff in Spanish universities is determined by the LOU and LOSU. At FVM all members of the academic staff meet the legal requirements for their hired role in accordance with national and EU regulations.

Permanent university professors must be accredited by a national or regional accreditation agency for a specific teaching category (member of ENQA). Promotions for new teaching positions require an independent accreditation for that teaching category granted by ANECA in order to access a competitive examination process to obtain the new position. The ANECA assesses the merits and competencies of candidates ensuring quality in Academic Staff selection. The accreditation process is designed to guarantee principles of equality, merit, capacity, transparency, and impartiality, focusing on both qualitative and quantitative evaluation of teaching and research merits considering a wide range of indicators for scientific relevance and social impact. The process is tailored to the specificities of each knowledge area, taking into account professional experience. The results of the accreditation process ensures that the criteria are aligned with the career stage as defined by the LOU/LOSU. Research activity is also externally evaluated by the National QA Agency for Research for 6-year periods. The total number of positive 6-year period evaluations in the FVM is 647, with a mean of 2.7 positive evaluations per permanent teacher.

The FVM also acknowledges and encourages international and national veterinary specialisations, believing that these specialisations enhance the quality of its teaching program and staff. The number of EBVS Certified Specialists among FVM teachers increases each year. This has enabled the instauration of 3 more residency programmes for European Colleges at the FVM. Additionally, a significant number of our teachers are members of different National and International Expert Committees and Agencies (Spanish Agency of Medicines and Health Products, Spanish Agency of Consumer Affairs, Food Safety and Nutrition, Secretary of State for Science, Innovation and Universities, WHO, European Food Safety Authority, etc.). Currently, the FVM sustains 30 international (most of them EBVS Certified Specialist) and 33 national specialists (Annex 9.1).

To ensure that the training provided for the students is in alignment with professional competencies, specific requirements in addition to the mandatory university Degree and PhD (when pertinent) are included in the job descriptions for the available positions. A mandatory professional profile is required for ASO. Candidates for this category must demonstrate a minimum of three years of professional work experience relevant for the subject/area, in addition to teaching and research experience. Materia and competencies are closely tied within the curriculum, ensured by the guidance of teachers specifically accredited in their respective fields of expertise (by ANECA or regional agencies), in both training and research. Lessons are carefully assigned to teachers with specific expertise on the appropriate field or topic. Our QAS carefully supervises and encourages this distribution with annual reviews of the description guides, detailed in Area 1.

The <u>Comprehensive Training Plan for PDI</u> at UCM aims to provide continuous training for research and teaching personnel in order to enhance the quality of teaching skills, competences and methods, stimulate innovation, group training, and the exchange of experiences. This provides teaching personnel with the tools and techniques to enhance their research activities, academic career, and their ability to manage and create social impact. This Training Plan is accessed through an on-line platform within the university's website. Along the lines of the Training Plan, continuous professional development guides and courses are annually facilitated by the UCM, in a variety of formats (on-line, blended or in-person sessions) catering to the diverse needs of our staff. These educational programs





ensure a broad spectrum of expertise and perspectives and guarantee our teaching staff the opportunity of continuous updates on their pedagogical skills for veterinary education. The courses vary in length and schedule flexibility and are organised around the following competency areas: teaching, research, management, social impact and transversal competences. Specific <u>training in biosecurity</u> for support and teaching staff depends on the Unit for Management and Coordination of Prevention of Labour Risks. Specific courses about general labour risks, and those associated with laboratory/animal facilities or use of gases in laboratories are periodically given. The UCM also provides <u>on-line computer training courses</u>.

This training program is complemented by FVM with DOCENTIA-UCM informational sessions and biosecurity training tailored to the faculty's work environment. Special attention is given within the QAS to teaching methodologies and assessment, particularly the evaluation of hands-on training practices, which are annually monitored to address areas of improvement. These measures may include meetings with the faculty or improvement requests to subject coordinators when pertinent.

<u>Educational innovation</u> is a cornerstone for the maintenance and enhancement of the quality education at FVM, enabling the adjustment to technological advancements and the evolving demands of society. FVM teachers are actively involved in these educational innovation projects, which manifests their keen interest in exploring and applying new pedagogical trends. Annually, FVM organises informative talks on the calls for <u>Educational Innovation Projects</u>, encouraging especially new and younger faculty members to use these initiatives as a platform to take part in these projects. Institutional social media platforms, websites and a YouTube channel are provided to support the creators of new projects and to distribute and share these activities with the rest of the Complutense community and beyond. The exceptional quality of some of the innovative ideas created at the FVM has been distinguished receiving the UCM's Awards for Educational Innovation. This further highlights FVM's commitment to continually lead in teaching innovation and to constantly seek novel ideas that enable our students to develop the necessary skills to excel in the professional world.

All academic and research staff of the UCM, is subject to a mandatory, periodic evaluation of their teaching skills and abilities, regardless of their academic category and dedication in order to maintain and assess the quality of their teaching skills. This evaluation is carried out through the <u>DOCENTIA-UCM Program</u>, which is managed by an application embedded in the UCM's website. The program requires teachers to provide and justify means, innovative skills and teaching activities used in the classroom.

Standard 9.2: Number, qualifications and skills of all staff involved with the study programme Table 9.2.1. Teaching staff involved with the core veterinary programme (FTE)**

Type of contract	22-23	21-22	20-21	Mean
Academic staff	273.1	268.1	253.8	265
Interns	10.4	10.8	10.8	10.66
Residents	1.5	1.5	1.5	1.5
PhD students	27	33	30	30
Certified specialists*	47.6	46.6	45.6	46.6
Practitioners	5.5	4.5	4.5	4.8
Others (specify)	-	-	-	-
Total	317.5	317.9	300.6	312

* Certified specialists are included in academic staff





Table 9.2.2. Percentage (%) of veterinarians inteaching staff (FTE)

Type of contract	22-23	21-22	20-21	Mean
Permanent	79.1	81.4	83.1	81.2
Temporary	74.4	76.3	77.9	76.2
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* The last complete academic year prior to the Visitation ** All staff included in this table must be contracted by the VEE and have received training to teach and to assess undergraduate students. Qualified persons/practitioners involved with EPT are not included in this table.

Table 9.2.3. Support staff (FTE)

Type of contract	22-23	21-22	20-21	Mean
Permanent	108	107	104	106.3
Temporary	40	41	41	43.7
Total	148	148	145	147

Table 9.2.4. Research staff (FTE)

Type of contract	22-23	21-22	20-21	Mean
Permanent**	-	-	-	-
Temporary***				
Predoctoral	27	33	30	30
Postdoctoral	14	10	9	11
Staff associated with Research Project/ Support Staff	63	62	51	58.6
Total	104	105	90	99.6

*Predoctoral and post-doctoral researchers are full-time staff. Staff associated with Research Projects and Support Staff can work parttime or full-time, and their dedication can change during the year. **The permanent academic staff of the FVM also conducts research activities. ***The hired academic staff is not included in this table, although they also conduct research activities.

-) Prospected number of FTE teaching and support staff of the veterinary programme for the next 3 academic years: Due to changes in the legislative framework, the UCM has approved the Academic Staff Action Plan for the year 2024 instead of the former triennial plan. This approach is in response to the recent enactment of the LOSU, which has introduced significant changes in the structure of university faculty. The LOSU has abolished the role of Assistants, modified professor categories, and reconfigured the access systems for Academic staff and Faculty officials. The new legal provisions required adjustments in teaching commitments and lecturing hours for various categories, such as Assistant Doctor and ASO. These changes are to be implemented throughout 2024, with direct implications for the University's academic organisation policies. The 2024 Action Plan is designed to adapt to the new regulations at the same time maintaining the commitment to educational quality and academic efficiency.

-) Formal programme for the selection and recruitment of the teaching staff and their training to teach and assess students: The selection and recruitment of new teaching staff members is overseen by the UCM Academic Staff Action Plan. The current Plan was set on a three-year basis (2020-2023) and establishes a general framework for the management of PDI over this period. The Plan provides a flexible staffing design that adapts annually to the faculties' needs. Each academic year, the Dept/DS present their needs for staff increase and/or replacement requests to the Faculty Council, which are hence evaluated by the Council, and if approved, forwarded to the Rectorate. The requests are then assessed and new position openings are provided in accordance with the funding previously designated for the UCM Academic Staff Action Plan. For permanent positions, including promotions to higher academic categories, candidates must go through a competitive examination process prior to announcement or opening for the position. Candidates must possess the required accreditation and are evaluated based on their teaching, research, and management activities. These examinations are conducted by a selection panel composed of teachers from the relevant area or subject. Selection and recruitment of personnel for temporary positions is managed by committees within the subject area, which review the candidates' qualifications and records. A thorough description of the training procedures, courses and continuing education resources provided for both newly recruited teaching personnel and promoted staff is exposed in Standard 9.1.

-) Formal programme for the selection, recruitment and training of the support staff: The selection and recruitment of support staff directly depends on the UCM Rectorate and the estimations provided in the UCM Staff Report. For civil servant support personnel, the UCM calls open access competitive examinations for the different categories/levels of responsibility. The UCM can also hire permanent and temporary staff. The VTH can hire clinical, technical and administration staff from its own budget, following the same hiring regulations and procedures of the UCM.





The <u>University's Support Staff Training Unit</u> is committed to professional and personal development of its employees, by means of continuous training programmes. These programs cover a wide range of formation in management, innovation and quality, occupational risk prevention, IT, data security, management of the university community and internationalisation of the university. The training plan includes biosafety, animal transport welfare, general labour risks, and courses on use and management of laboratory/animal facilities or use of gas manipulation in labs, and specific English or other language courses, and training in equality, diversity and inclusion. In addition, the plan focuses on the promotion of health, welfare, sustainability and environmental awareness.

-) Formal rules governing outside work, including consultation and private practice: Private practice is permitted for part-time teachers and support staff. ASO must be employed outside the university in addition to the UCM contract. Private practice is generally not permitted for full-time professors, with the exception of public institutions with prior authorization from the University.

Standard 9.3: Staff development, recognition of pedagogic expertise, and balanced and supportive work environment

Different teaching positions still coexist under both legislations, LOSU which came into effect in April 2023 and LOU (2001).

Category	Specifications	PhD	Accreditation	Teaching h/y
Civil Servants, Tenure	ed, Permanent			
Full Professor	Full-time or part-time	Х	Х	180-240
Associate Professor	Full-time or part-time	Х	Х	180-240
Non-Civil Servants, To	enured, Permanent			
Non-civil Associate Professor	Full-time	Х	Х	180-240
Collaborating Professor	Full-time	-	Х	N/A
Non-Civil Servants, Pe	ermanent			
Professional Associate Professor (ASO)	If PhD, can enter the academic career path through the Academic Staff Action Plan	-	-	Max 120
Non-Tenured				
Assistant Doctor Professor	6 years Mandatory teaching training in the 1 st year	Х	-	180
Assistant	Being eliminated	-	-	N/A
Visiting Professor	Full-time or part-time 2 years, non-extendable, non-renewable		-	N/A
Substitute Professor	Duration adjusted to the reason for hiring		-	N/A

Full Professor (Catedrático de Universidad); Associate Professors (Titular de Universidad and Contratado Doctor); Non-civil Associate Professor (Contratado Doctor - Permanente Laboral); Collaborating Doctor Professor Colaborador; Professional Associate Professor (Profesor Asociado) Assistant Doctor Professor (Ayudante Doctor); Assistant (Ayudante); h/y: hours per year

The lecture load is assigned to each teacher yearly based on their category, safeguarding the amount of time required for clinical activity, research, management and continuing education. The UCM and the FVM have a balanced system of recognition and distribution of workload, published annually in the Teaching Plan of each Dept.

As mentioned in Standard 9.1, The UCM offers numerous opportunities for didactic and pedagogic training and specialisation. This training is compulsory for the Assistant Doctor Professor, with mandatory teaching training during the first year of appointment. Furthermore, in accreditation and selection processes, all merits related to clinical specialisation are duly considered.

The teaching and research merits of the permanent academic staff are evaluated every 5 years (*quinquenio*) by the UCM and every 6 years (*sexenio*) by the National QA Agency for Research, with pertinent salary improvements when results are positive. The UCM has "DOCENTIA-UCM Excellence Recognition" acknowledging faculty members ascribed to the DOCENTIA-UCM program with at least one "excellent" and no "non-positive" evaluations over a six-year period.





Standard 9.4: Programme for the professional growth and development of teaching and support staff

-) **Professional growth and development:** Hired non-permanent academic staff may access permanent positions through a public open access examination process once they have obtained the accreditation by ANECA or the QA regional agencies, for those permanent positions, and a positive evaluation by DOCENTIA-UCM. Equally, the permanent staff can access higher positions once they are duly accredited.

-) Appraisal and promotion procedures: The stabilisation and promotion process of the UCM has been applied through the <u>Academic Staff Action Plan 2020-2023 (UCM)</u>, since 2020. This Plan established a general framework for the management of PDI, with guidelines to strengthen Depts with staffing needs, reduce the number of interim professors, promote academic careers and create opportunities for associate staff and researchers to enter the academic career. The plan establishes benchmarks and requirements for promotion, setting a clear path for career advancement that aligns with the standard's demand for transparency and fairness in staff development.

Support staff members also have programs for promotion and relocation. These programs involve competitive examinations that enable promotions and/or transfers, encompassing selective processes for both civil servants and labour personnel. By this means, the university's workforce is stabilised through merit-based competitions and competitive examinations. Additionally, the university has undertaken numerous partial modifications to the Staff Position Listing, designed to adapt roles to evolving needs and emerging technologies, while also regularising and adjusting work schedules, supplementary payments, and remuneration levels.

-) Mentoring and supporting procedures: There are no official mentoring or support procedures for teachers. Academic staff generally work under the guidance of one or more senior academics, usually integrated into a teaching/research group. Support staff dedicated to administrative duties work under the guidance of a senior staff member, and technical staff work under the guidance of one or more research or academic staff members. A welcome and support program for new faculty to facilitate their integration into the FVM and the UCM community at large is currently under development and will provide orientation and support for new members for their acclimation to the academic and cultural environment of the university.

-) **Implication in the decision-making processes:** The UCM has established decision-making and representation bodies that guarantee the active participation of all staff members and students in governance and decision-making processes. At the university level, the University Council includes representatives from all sectors of the university community (teachers, students, administrative and support staff, etc.) This body, in conjunction with the Governing Council and their own representatives, facilitates their involvement in critical decisions.

At the FVM level, the Faculty Council incorporates teachers, students, and support staff. Furthermore, active participation in both dependent and independent committees and commissions under this Council is encouraged, providing additional opportunities to influence the government of the faculty.

At the departmental level, the Dept Council comprises all doctoral faculty members and representatives from other sectors, including non-doctoral teaching staff, students, and administrative and support staff. This ensures that Dept-related decisions are made with a broad and diverse perspective.

Standard 9.5: Assessment of teaching and teaching staff

The DOCENTIA Programme, designed by ANECA and developed in collaboration with the regional quality agencies, provides a comprehensive framework that allows Spanish universities to develop their own models of evaluation of teaching activity. The <u>DOCENTIA-UCM Programme</u> is the adapted programme at the UCM. It contextualises the evaluation of teaching activity in the specific scenario





of our university and its quality policies. This programme was certified by the ANECA together with Madri+d Foundation on 7 February 2023. DOCENTIA-UCM is a QA mechanism that ensures teaching standards are maintained and encourages teachers to continuously improve their practices. The three-year cyclical approach ensures continuous improvement and that teacher evaluation is an ongoing process.

The evaluation is mandatory and applies to all PDI at the UCM, regardless of their academic category and commitment. Four dimensions of individual teaching activity are assessed every three years: planning and organisation, development, outcomes, and processes of reflection, improvement, and updating of teaching activities. Each dimension depicts a set of specific indicators that encompass different teaching activities. The triennial evaluation integrates various elements and information sources, including student surveys (see Appendix 4.6 for student questionnaire), a self-evaluation report by the teaching staff, reports from academic heads (Depts and Dean's Office), and information from the UCM's databases. The results are used for feedback and continuous improvement, evaluated by designated committees and a team of evaluators.

The evaluation commissions involved in the DOCENTIA-UCM Program are the Quality Commission for Faculty Teaching Activities, the peer evaluation team, the Claims Commission. The final evaluation is based on scores obtained in different dimensions of the model, according to their weight. Teachers can receive an "excellent evaluation", "very positive evaluation", "positive evaluation", "nonpositive evaluation", and "negative evaluation". Positive evaluations serve as a requirement or merit in promotion or stabilisation plans, for renewing contracts for temporary teaching staff, in UCM calls (scholarships for national or international mobility, teaching exchanges, educational innovation projects, etc.), and in recognition of academic and economic incentives as determined by the UCM Governing Council. Negative evaluations or lack of participation require additional training or reevaluation. Results are distributed through annual and individual reports to teachers, Depts, and centres, and in an Annual Institutional Report publicly available on the UCM website, by means of an annual report and triennial report for each faculty member, an annual report for academic leaders of the departments/centres, an overall/global report for each centre, and an annual Institutional report for the UCM Rectorate. DOCENTIA-UCM, with its emphasis on self-reflection, external evaluation, and student feedback, provides a comprehensive view of teaching effectiveness. This system ensures continuous monitoring of teaching quality and contributes to the improvement of education.

The strategy for allocating, recruiting and promoting teaching and support staff as well as how decisions are communicated to the public (including staff, stakeholders, students, etc.), are detailed in section 9.2. All decisions must follow the UCM Academic Staff Action Plan and the UCM Staff Report, and are managed by the Rectorate, which attends the needs petitioned by the faculties and regulated by available funding. All positions and promotions are made public. To access specific positions, the corresponding accreditations are required.

Comments on Area 9

The teaching staff for this Degree possess the necessary academic qualifications and experience to train future Veterinary Graduates. A significant proportion of the staff are full-time, ensuring their high level of involvement in teaching activities. The teachers have extensive clinical and professional experience, making a fundamental contribution to the teaching of the Degree.

The quality of teaching is reinforced by the continuous and high level of research conducted by the teaching staff at the Centre, as evidenced by the more than 650 six-year terms granted.

The UCM Academic Staff Action Plan is favouring the consolidation of the workforce, taking into account the teaching experience of the staff, which has an average of 4.9 years of teaching experience per five-year period.



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Suggestions for improvement in Area 9

Our student-to-teacher and student-to-support staff ratios can be considered as adequate. Nevertheless, these ratios should be improved to some extent, mainly in relation to practical teaching in small groups, which requires a greater number of academic staff in comparison with other teaching activities.

LOSU has made changes to the categories of professors and reconfigured the access systems. The new legal provisions require adjustments to teachers' teaching commitments and establish limits on class hours for several categories. These changes could affect academic organisation, and a gradual adaptation would be necessary to reduce the impact on teaching.

The number of EBVS diplomats and residency programs could be increased, as well as administrative and support services staff, especially those related to clinical, animal care, and other FVM and VTH activities.

Progress should be made in the development and implementation of formal programs at the university level to train new teachers and support staff.





RESEARCH

and and ation

Research programmes, continuing and postgraduate education



Universidad Complutense Madrid Facultad de Veterinaria



Standard 10.1: Research activities and the implication of teaching staff.

The FVM develops an intense research activity which is organised into seven areas of Veterinary Sciences that integrate our research strategy: Microbiology, Parasitology, Immunology and Animal Health, Animal Medicine and Surgery, Food Technology, Safety and Hygiene, Animal Production, Nutrition, and Genetics, Toxicology and Pharmacology, Animal Physiology, Endocrinology and Nervous System, Biochemistry, Molecular Biology and Biomedicine.

Research at the FVM is based on <u>32 UCM-validated groups</u> composed of multidisciplinary members of our staff. The UCM research groups are externally evaluated by the National QA Research Agency, validated by the UCM Research Committee, and funded by the UCM. Our teaching staff are evaluated every six years for their research merits by the National QA Research Agency and have received a high number of positive evaluations (647 in total), which corresponds to more than three per teacher. The quality of our research activity is reflected in our position in various international rankings, such as the <u>QS ranking</u> (35th), or the <u>Shanghai ranking</u> (17th). The FVM has a high potential for attracting research funding from different competitive international, national, regional and institutional sources. FVM has been ranked 1st-4th from 2020 to 2022 out of the 26 Faculties of the UCM in raising funds from research projects in different programmes (see Table 10.1.1). Our research groups also obtain funding from the specific UCM budget for validated groups (~50,000 € in 2022), as well as from other UCM competitive calls, such as actions for the acquisition of laboratory equipment and congress organisation (~70,000 € in 2022).

As a result of our research activity, most of the teaching staff have a significant number of publications in congress proceedings and peer-reviewed scientific journals (Appendix 5). All the information of each researcher is accessible at the <u>UCM Scientific Production Website</u>. As quality indicators of the research activity at the FVM, 1,066 scientific papers were published between 2020 and 2023 in JCR-indexed journals. In the last five years, 1,840 documents have been published by our research groups, with an average h-index of 58. The 200 most cited articles account for 49,982 citations, among them 18,712 corresponding to the last five years. This activity allows us to successfully apply for different competitive calls for projects and pre-doctoral grants, with an average of 24 students/year receiving financial support for their PhD training over the last three years. The success of the research and technology transfer conducted at the FVM is reflected in the operation of two spin-off companies (VELOGEN and SALUVET-INNOVA), which are aimed to meet social and professional demands in various areas of Veterinary Sciences. These companies offer highly qualified job opportunities to both Veterinary graduates and postgraduates.

This environment ensures high quality research-based teaching for all undergraduate and postgraduate students, in which our staff are actively involved through a wide range of activities:

- Supervision of undergraduate students on research grant programmes (collaboration scholarships, Erasmus and other exchange programmes, etc.).
- Supervision of students' voluntary collaborations with Depts, DS and VTH.
- Supervision of GTh.
- Supervision of scientific contributions by students to congresses, seminars, etc.
- Members of the scientific committee of student congresses.
- Participation in research courses and seminars for students.
- Participation in scientific dissemination events for society (Science Week, European Researcher's Night, etc).
- Participation in the UdcVet.
- Teaching and thesis supervision in Master and PhD programmes.





Table 10.1.1. List of the mayor funded research programs in the establishment that were ongoing during the last full academic year before the Visitation (2022)

Research Program	Scientific topic	No. projects	Grant/ year	Duration
European Commission	Animal Health	8	6,091,672.74	Average of 2-3 years each
	FST	1	59,000.00	2021-2023 (2 years)
	Animal Medicine and Surgery	1	173,628.00	2022-2025 (3 years)
NIH	Animal Health	1	173,447.55	2021-2023 (2 years)
Subtotal		11	6,497,748.29	
Spanish Ministry of	Animal Health	8	1,030,679.00	Average of 3-4 years each
Science and Innovation	FST	6	934,362.00	Average of 3-4 years each
(MICIN)	Biochemistry and Molecular Biology (Biomedicine)	3	494,769.00	2022-2026 (4 years)
	Physiology, Pharmacology and Toxicology	2	408,980.00	2020-2022 (3 years)
	Animal Medicine and Surgery	1	88,330.00	2019-2022 (5 years)
	Animal Production	3	397,243.00	Average of 3-4 years each
Subtotal		23	3,354,363.00	
Institutional	Animal Health	3	35,375.17	Average of 1-2 years each
Programmes (UCM)	Animal Medicine and Surgery	1	11,695.59	2022-2023 (1 year)
	Animal Production	1	12,000.00	2021-2022 (1 year)
	Anatomy and Embryology	1	11,794.93	2022-2023 (1 year)
Subtotal		6	70,865.69	
	Anatomy and Embryology	1	27,783.97	2018-2022 (4 years+1)
Regional Programmes	Biochemistry and Molecular Biology (Biomedicine)	5	976,906.56	2020-2022 (3 years)
	FST	1	55,585.99	2022-2024 (2 years)
	Animal Health	10	1,574,151.28	Average of 3-4 years
Subtotal		17	2,634,427.8	
Transfer Technologies to Innovative enterprises	Multidisciplinary	56	1,089,987.14	Average of 1-4 years each
Collaborative Projects (University-Enterprises)	Multidisciplinary	4	527,961.12	Average of 2-3 years each Training of students in scientific methods and research techniques
Total		117	12,557,404.8	

Standard 10.2: Training in scientific methods and research techniques relevant to evidencebased veterinary medicine and opportunities to participate in research programmes.

10.2.1 Importance of evidence-based medicine, scientific research and lifelong learning

Since 2014, the Veterinary Degree has been recognised by the Spanish Qualification Framework for Higher Education as level 3 (Master). This level includes all the qualifications that are aimed at the acquisition of advanced training towards specialisation or to promote the introduction into research activities. Students are made aware of the importance of evidence-based medicine, scientific research and lifelong learning through the following main channels:

- Direct information from the teacher. The expertise of the teachers is taken into account in the distribution of the contents of the syllabus, enabling them to share their knowledge with the students in both lectures and practical classes, and to encourage them to develop a scientific approach to learning.
- <u>GTh</u> includes experimental research work, either a laboratory experiment, a clinical study, an analytical activity or a critical review. The grades obtained form part of the final Degree qualification.







- Universidad Complutense Madrid Facultad de Veterinaria
- Participation in scientific events. The FVM launched the *First Veterinary and Biomedical Sciences Congress for UCM Undergraduate Students* in 2001. Since then, the congress has been held annually and has become the *National Congress on Undergraduate Research in Health Sciences*. At this congress, undergraduate students present the research they have carried out under the supervision of their teachers. The participation of students in this congress has been outstanding and has continuously increased since its creation. In the 2023 edition, a total of 1,031 students registered at the congress; among a total of 162 oral communications, 14% were authored by FVM students, and 3 were awarded for their contributions.

Students also have the opportunity to attend the *Conference for the Dissemination of Research Conducted by PhD Students at the FVM* (VETINDOC-PhDay), created in 2015 and held every year. At this event, organised by the students with the support of the Dean's Office, our PhD students present the latest results of their theses, and by attending the conference, undergraduates can make contact with postgraduate education and get closer to advanced research. Additionally, every two weeks from March to May, open seminars given by our PhD students are publicly presented to which undergraduates are welcome to attend. Since 2021, a compulsory session about ethics and integrity in research has been included in the postgraduate training programme, which is also open to undergraduate students and the FVM staff.

Scientific training. Since 2020, the FVM and the Spanish Society of Biochemistry and Molecular Biology (SEBBM) have jointly organised an ambitious *Training Programme of the Research Career*, which is intended to be transversal and multidisciplinary. The conferences are mainly aimed at PhD students and researchers from different fields of knowledge but are also open to undergraduate students. A total of 32 sessions have been held and more than 140 researchers from different national and international universities, research centres, official institutions (research agencies, ministries, etc.) and companies have participated in the three editions that have taken place so far. More than 7,000 people have attended this programme. It has been included in the Training Activities Programme organised by the Doctoral School of the UCM (EDUCM). The FVM has also developed, together with the Vice-Rectorate for Research and Transfer of the UCM and in collaboration with the Faculty of Biological Sciences, a 60-hour (3 modules, 30 sessions) continuing training course for the *Maintenance of Qualification in Animal Experimentation and Other Scientific Purposes*. In its first edition, running from September 2021 to February 2023, 529 people have completed the course and 17,000 certificates have been issued for the different modules and sessions.

Scientific dissemination activities for society. In 2021, the FVM launched <u>UdcVet</u> to promote the relationship between the science carried out in our Faculty with undergraduate and postgraduate students, other institutions, and society, promoting the growth of scientific culture and the transfer of knowledge. The UdcVet prepares scientific-based news, interviews, opinion articles, audio-visual and monographic materials on scientific topics related to the research activity carried out in the FVM, which are disseminated through social networks, electronic newsletter, own website and YouTube. It is the first Udc in the UCM. The UdcVet team is formed by FVM teaching staff, library staff and undergraduate and postgraduate students, under the coordination of the Vice-Dean of Research, Transfer and Library. It also has the support of other agents (such as the UCM Scientific and Innovation Culture Unit <u>UCC+i</u>). Some examples of successful activities carried out by UdcVet in the last two years to improve the scientific culture among our students are:

- Scientific meetings entitled "*Talk about Science with...*". This activity brings the research activities of teaching staff and external researchers closer to all members of our community, including our students, through talks on research information of interest.
- "<u>Science through books</u>". With the launch of this cycle, FVM promotes scientific culture and makes science more accessible through books written by scientists from different fields. It also allows students and staff to meet relevant authors and talk with them about their works based on scientific knowledge.



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<u>UdcVet</u> participates in the activities of the <u>Science Week</u>, traditionally developed each year by the research staff and students of the FVM with great vocation and success of public influx. However, new projects have been added to these activities in recent years. Since 2021, we have also participated in the <u>European Researchers' Night</u> by offering workshops that combine food science and technology. In 2022, we have pioneered at the UCM the development of the <u>Wikipedia Spain project</u>, promoted by the Madri+d Foundation, in collaboration with undergraduate and postgraduate students. One ECTS can be obtained by undergraduate students through this activity. Recently its activity has been included in the Training Activities Programme of the EDUCM. In addition, we already have participated so far in four editions (since 2020) of the <u>International Day of Women and Girls in Science</u>, through exhibitions, informative videos, and workshops with female scientists to inspire girls to pursue careers in science. An important milestone has been our participation, representing the UCM, in the 2023 edition of the <u>Science Fair</u> of Madrid (IFEMA), which has been a great success with a large public attendance of all ages.

10.2.2 Bibliographic search, scientific methods and research techniques, and writing of scientific papers

In different subjects of the curriculum, students are required to conduct bibliographic search and to write and present scientific works under the supervision of their teachers. This training culminates with the GTh, but is also reflected in the contributions presented at the National Congress on Undergraduate Research in Health Sciences, where, in addition to 10-minute oral or poster presentations, students are invited to prepare a 5-page manuscript (comparable to a short communication for an international peer-reviewed journal), which is supervised by their tutors and evaluated prior to the Congress by the Scientific Committee, composed of teachers from different faculties of the UCM. The best manuscripts are awarded with a prize. As stated in Area 6 the FVM library also organises monthly courses for all students (undergraduate and postgraduate) at different levels on bibliographic search and management, databases, and scientific writing. This training is included in the curriculum, with the recognition as elective credits (1 ECTS). The teaching staff are also involved in specific methodological training for students. Since 2023, a support course on the use of statistical tools for data analysis has been developed for students registered for the presentation of the GTh. The Training Program of Research Career developed by FVM includes specific sessions on research techniques and writing scientific papers, that are available on the UdcVet web. In 2021, the FVM with the support of EDUCM, offered a UCM summer course in El Escorial about research training and ethics with specific sessions about these issues. UCM grants for undergraduate and postgraduate students were available to attend these courses.

10.2.3 Participation in research programmes on a non-compulsory or compulsory basis

The involvement and introduction of students to scientific research is a traditional part of our teaching strategy. During their undergraduate years, every student is actively involved in research activities through various programmes. These possibilities are disseminated in the classroom and the laboratory, through public advertisement, informative displays, e-mail, social networking, and open sessions. The new UdcVet created for science dissemination has strengthened these functions.

- <u>Collaboration scholarships</u>. The Spanish Ministry of Education and Vocational Training, and also the <u>UCM</u> invites applications every year. The aim of these programmes is to enable final year undergraduate and official Master degree students to collaborate in the Dept/DS, under the supervision of teaching staff, so they can initiate research activities directly related to their studies. Over the last three full academic years, the FVM has received 17 collaboration scholarships (6 in 2020-21, 5 in 2021-22 and 6 in 2022-23).
- EPT. Some students choose to carry out their EPT in research centres outside the FVM (See Annex 3.6)
- Research recognised as elective ECTS for <u>Depts/DS Collaboration Programme</u>. Between 35-75 students/year participate in these research activities. In addition, the <u>Student Collaboration</u>





<u>Programme at the VTH</u> offers 190 places, and many of these students participate in clinical research.

- <u>GTh</u>. Students must work independently on a scientific project under the supervision of a teacher, concluding with the writing of a dissertation and its public presentation to an examination board.
- Participation in the *National Congress on Undergraduate Research in Health Sciences* and other scientific events.
- Collaboration in the <u>UdcVet</u>.

10.2.4 Minimum requirements for the GTh, its supervision and its assessment

The coordinator of the subject and a specific committee of the FVM supervise all the procedures related to the GTh. The requirements, organisation, supervision and evaluation are governed by a Regulation approved by the Faculty Council. The thesis is an individual work carried out by the student under the supervision of one or two tutors. It must be an original project and may be carried out inside or outside the FVM in external institutions or companies with an agreement with the UCM. The nature of the topics may be diverse, in accordance with any of the professional profiles of Veterinary Sciences. The FVM publishes each year a list of available tutors and general topics from which students can choose. Students can also contact a teacher directly to propose and define the topic. In order to register for the GTh, students must have passed 70% of the credits (210 ECTS), including all basic subjects. The presentation can only be done once all the ECTS of the Degree have been passed. The coordinator of the subject develops information seminars and meetings for students and tutors. The supervisors establish the timetable for the development of the written report and the preparation of the public defence. The written report must have an extension of 10 to 35 pages. The document, preceded by a table of contents, must contain the following sections: abstract (in Spanish and English), key words, introduction, justification and objectives, materials and methods, results and discussion, conclusions (in Spanish and English) and references (maximum 40). Optionally, additional documentation may be included in a final section of appendices. The public defence takes place by an examining board composed of three members of the academic staff of the FVM. The duration is from 10 to 15 minutes, followed by a 15 minute discussion. The oral presentation can be in Spanish or English, if it is in Spanish, at least the objectives and conclusions should be presented in English. The final mark is the weighted sum of the marks of the examination board (75%) and the tutor(s) (25%). The tutor(s) will assess the student's attitude and aptitude, the preparation and development of the report and the preparation of the defence. The examining board assesses the written report, the oral presentation and the discussion. As it has been mentioned, the GTh is essential for assessing the soft skills acquired by the student, including communication, but also time and pressure management, adaptability, response to criticism, etc.

Standard 10.3: Postgraduate Degree programs

The FVM postgraduate training offer includes the following programmes:

- 1. <u>Two PhD Programmes</u>: Veterinary Sciences and Biochemistry, Molecular Biology and Biomedicine.
- 2. <u>Four Official Master Degrees</u>: Virology, Production and Animal Health, Swine Health and Production and a new Master's Degree in Research, Development and Innovation in the Food Industry, starting in 2023-24.
- 3. Lifelong Learning (<u>Permanent Education Programmes</u>): Non-official UCM postgraduate courses and continuing education courses.
- 4. Postgraduate clinical training Programmes.

All official Master programmes offered by the FVM have both research and a professional profile. This enables our students to engage in research and/or professional activities in public health, animal production, the food industry and other strategic areas of Veterinary practice at a national or international level.





The FVM PhD programmes produce an average of 25 doctoral theses per academic year. More than 40% are presented as a compendium of publications and more than 50% receive the International PhD mention, which means that the students have spent at least three months in an international institution to carry out part of their experiments. Nearly 10% of thesis have the Industrial PhD mention, which requires students to participate in an industrial research or experimental development project that enhances the interaction between industry and academia and promotes the transfer of knowledge from research to practice.

			Inte	erns		Reside	nts (EB	VS dis	ciplines)
	Clinical discipline	22-23	21-22	20-21	Mean	22-23	21-22	20-21	Mean
Small animals	Small Animal Area (Clinical Rotation)	4	4	4	4	-	-	-	-
	Small Animal Medicine	3	2	2	2	-	-	-	-
	Small Animal Surgery	2	2	2	2	-	-	-	-
	Small Animal Hospitalisation, IC and ER	6	6	6	6	-	-	-	-
	Diagnostic Imaging	1	1	2	1				
	Anaesthesia	2	2	2	2	1	1	1	1
Equine		8	8	8	8				
Production Animals	Ruminants	2	2	1	2	1	1	1	1
Others	Pathology	-	-	-	-	1	1	1	1
Total		28	27	27	27	3	3	3	3

Table 10.3.1. Number of students registered at postgraduate clinical training.

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

	22-23	21-22	20-21	Mean
PhD Programmes	208	205	206	206
PhD Programme in Veterinary Sciences	193	189	194	192
PhD Programme in Biochemistry, Molecular Biology and Biomedicine	15	16	12	14
Official Master Degrees	71	62	65	66
Virology	32	25	24	27
Production and Animal Health	15	13	17	15
Swine Health and Production*	24	24	24	24
Total	279	267	271	272

*Students are enrolled at the University of Lleida but receive part of their training at the FVM.

Table 10.3.3. Number of students registered at other postgraduate programmes but not related with either clinical or research work.

Programme	22-23	21-22	20-21	Mean
Basics of Animal Physiotherapy and Rehabilitation (UCM Master Course, non-official)	*	*	12	12
Equine assisted interventions (UCM Specialisation Diploma)	5	8	4	6
Exotic and Wild Animals: Management, Clinical Practice and Captivity Breeding (UCM Specialisation Diploma)	22	21	31	25
Traumatology and Orthopaedic Surgery in Companion Animals (UCM Specialisation Diploma)	14	14	*	14
Veterinary Direction and Management of Animal Protection Centres and Animal Shelters (UCM Master Course, non-official)	6	6	11	8
Veterinary Management of Animal Protection Centres and Residences (UCM Specialisation Diploma. Former continuing education course)	*	4	*	4
Veterinary Management and Integrated Urban Cat Colony Control (UCM Specialisation Diploma)	21	*	*	21
Total	68	53	58	60

*Not offered or imparted in the academic year of reference. Courses are offered annually or every two years.

UCM Master Courses: 60-120 ECTS; UCM Specialisation Diplomas: 30-59 ECTS.





Table 10.3.4. Number of attendees to continuing education courses.

Course	22-23	21-22	20-21	Mean
Advanced Course in Odontology and Maxillofacial Surgery	7	*	*	7
Arthropods of Public Health Concern	7	7	10	8
Auxiliary Technician in Zoos and Aquariums	40	31	19	30
Biointensive Method of Food Cultivation	*	*	54	54
Biology and Conservation of Sharks	*	1	*	1
Canine Instructor and Behaviour Therapist	12	18	1	10
Maintenance of Qualification in Animal Experimentation and Other Scientific Purposes	529	*	*	-
Cheese. From Milk to Table through the Cheese Factory	18	*	*	18
Equine Clinic	3	*	*	3
Laboratory Animal Handling. Categories A, B and C	*	3	*	3
Physical Preparation, Training and Sporting Performance in Horses	12	*	*	12
Technical Assistance in Veterinary Clinics Part I	20	16	14	17
Technical Assistance in Veterinary Clinics Part II	19	14	21	18
Technical Assistance in Veterinary Clinics Part III	19	*	*	19
Technician in Centres for Recovery, Reproduction and Reintroduction of Wildlife	29	25	27	27
Veterinary Management of Animal Protection Centres and Residences	*	*	4	4
Veterinary Ophthalmology	*	18	*	18
Total	186	126	150	154

*Not offered or imparted in the academic year of reference. Courses are offered annually or every two years.

10.3.1 Prospected number of students registered at postgraduate programmes for the next 3 academic years

The new Master in Research, Development and Innovation in the Food Industry has joined our offer of official Master programmes with 36 new places, which will increase our number of postgraduate students in the following years. Clinical and continuing postgraduate programmes will be strengthened through the promotion of new courses and the enhancement of existing ones. Based on current trends and the growing popularity of our advanced academic offerings we anticipate an increase in the number of students enrolling in our postgraduate programs for the next three years. We strive to continually create postgraduate training programs that are adapted to the changing demands of the profession and the needs of society. We are committed to expanding and improving our residency programs and to increasing the number of EBVS Certified Specialists. To achieve these objectives and enhance our postgraduate offerings, we will continue to forge and maintain collaborations with professional associations, administrative bodies, and stakeholders.

10.3.2 Postgraduate clinical trainings contribute to undergraduate veterinary education and potential conflicts in relation to case management between post- and undergraduate students are avoided

The current number of Certified Specialists of the European Colleges among our academic staff is 30, and the number of national accredited teachers is 33 (Annex 9.1). Three EBVS Residency Programmes (Ruminants, Pathology and Anaesthesia) are currently running. In 2022, the VTH offered 26 internships for Veterinary graduates: 17 places in the area of Small Animals and 10 places in the area of Large Animals (Table 10.3.1). Residents and interns collaborate in the practical training of undergraduate students in different subjects, including the Clinical Rotations. There are no conflicts in case management between post- and undergraduate students; on the contrary, the presence of Interns, Residents and Diplomates in the FVM staff stimulates and challenges all our students.

10.3.3 Continuing education programmes are matched to the needs of the profession and the community

Our postgraduate programmes are based on our research activity, and also on the close collaboration with professional associations (COLVEMA, AVEPA, ANEMBE, SECIVE, AVEE, SEBBM, etc.), companies, and Public Health, Food and Agriculture Depts. In collaboration with these entities, the





FVM also organises numerous specialised one-day sessions and workshops on different topics of Veterinary professional activity, which are open to undergraduate and postgraduate students.

As already mentioned, the FVM maintains a close relationship with COLVEMA, formalised through the establishment of the official 'COLVEMA-UCM Extraordinary Chair.' This connection facilitates the proposal and development of numerous continuing education initiatives by our academic staff, supported by the Professional College. The FVM engages in active collaboration with COLVEMA, with the representative from the FVM on the COLVEMA Board serving as an integral member of the COLVEMA Training Commission. Additionally, the FVM contributes to organising and hosting the Professional Master in Food Safety programme. In 2023-24, we are celebrating the 20th edition of this highly esteemed course, which is widely recognized by professionals. Furthermore, COLVEMA sponsors an award for the best presentation at the VETINDOC-PhDay.

Links between the university and society in terms of continuing education are also established through other active collaborations, such as the two Extraordinary Chairs established with Hill's Pet Nutrition and ICV-Evidensia, with the aim of promoting research initiatives and advanced clinical training to better integrate graduates into professional activity. Finally, the FVM also participates in the activities of the "Extraordinary Chair Almirante Don Juan de Borbón", created by agreement between the UCM and the Spanish Ministry of Defence, through which training activities are offered in relation to the functions of veterinarians in the military forces.

Standard 10.4: QAS for evaluation of research activities for student training and staff promotion

10.4.1 Research activities contribute to research-based education

There is a <u>Research Committee of the FVM</u>, composed of representatives of all Depts and DS and coordinated by the Vice-Dean of Research, Transfer and Library. As it has been mentioned, the activity of our research groups is evaluated at FVE, UCM and national level, and the staff is evaluated for their 6-year research periods, which high number is a proof of the high level of the research activity in the FVM. These individual research merits are fundamental for staff promotion. The Research Committee of the FVM is responsible for the evaluation and selection of the candidates granted by the UCM predoctoral contracts assigned to the Faculty (usually 3-5).

Undergraduate and Master Degrees and PhD Programmes have <u>Academic and Quality Committees</u> that supervise and analyse the progress of the students. The self-evaluation reports, which are submitted periodically to the UCM Vice-Rectorate for QA and to regional and national QA agencies, are prepared and approved within the QAS and are a fundamental tool for monitoring the accomplishment of our educational objectives, including research-based education.

With regards to the <u>GTh</u>, as the culmination of research-based training, there is a specific Committee that every year supervises the entire process for its presentation and analysis of the results. This committee, together with the Coordination Delegate and the CEMGV, work in close collaboration to organise, evaluate and revise all aspects of the students' progress (Appendix 4.5).

10.4.2 Continuing and postgraduate education programmes procedures

As it has been mentioned, research, continuing education and postgraduate programmes are based on our research strategy, together with the input of professional associations and other collaborating entities. The research activity of our groups and staff is periodically evaluated at UCM and national levels by different committees and agencies.

Proposals for continuing and postgraduate education courses (official and non-official, clinical and non-clinical) are approved by the Depts/DS, the VTH and/or the Faculty Council. These proposals can be made by teachers, researchers and/or FVM groups, and some of them are also promoted from the Deans' Office, as part of the strategic plan of the FVM, such as some new residency places or the new Master in Research, Development, and Innovation in the Food Industry, with the aim to strengthen training and research in Food Technology, Safety and Hygiene. Professional associations and





companies also promote postgraduate and continuing education initiatives through collaboration agreements in which the professional needs are identified and defined. Official postgraduate programmes are evaluated by the UCM Vice-Rectorate for QA and by regional and national QA agencies. Non-official courses are further evaluated, approved and monitored by the UCM <u>Centre for Lifelong Learning</u>.

The QA Committees of undergraduate, postgraduate and PhD programmes include students and stakeholders. Communication of continuing and postgraduate education programmes is made to staff, students and stakeholders through the publication of the approval agreements by the Faculty Council, through FVM website, the social media of the FVM, VTH and the UCM Centre for Lifelong Learning, and through the Professional Orientation Office, which is attended by COLVEMA in coordination with the FVM. Full information about research at the FVM and the dissemination of science is available on the website of the <u>UdcVet</u> and is also made available through its social media.

Comments on Area 10

The research activity of the FVM is remarkable and one of our strengths, which is reflected in our scientific production and our position in international academic rankings. Students are encouraged to participate in different research programmes throughout their training period. This builds a strong network between undergraduates, Master and PhD students, research groups, teaching staff, etc., which leads a significant number of our graduates to continue their studies in our postgraduate programmes.

New initiatives related to research and dissemination of the scientific activity of FVM, such as the UdcVet, have strengthened the scientific culture of the students. The new Master in Research and Development and Innovation in the Food Industry offers our graduates the opportunity to expand their competences and skills in a strategic area of research and professional activity of veterinarians. Among our postgraduate offers, a complete Veterinary Assistant training programme has been implemented.

Suggestions for improvement in Area 10

Efforts have been made to establish new Residency programmes and to increase the number of EBVS Diplomates among our academic staff, but it will be necessary to continue growing in these aspects.

We will continue to develop new postgraduate training programmes to meet the needs of the profession and society. Collaboration with professional associations, administration and stakeholders will continue to be essential for this purpose.

The creation of two specific Research and Postgraduate and Continuing Education Support Offices to assist our staff with financial management and paperwork would facilitate the research activity of FVM and allow the growth of its training offer.





INDICATORS

List of ESEVT Indicators





	Name of the VEE: Veterinary Faculty Complutense	University	of Madrid			
	Name & mail of the VEE's Head: Consuelo Serres Dalmau cserres	@ucm.es				
	Date of the form filling: January 10th 2024					
	Raw data from the last 3 complete academic years	Year -1	Year -2	Year -3	Mean	
1	n° of FTE teaching staff involved in veterinary training	298,60	221,48	208,18	242,75	
2	n° of undergraduate students	991,00	1.015,00	1.042,00	1016,00	
3	n° of FTE veterinarians involved in veterinary training	169,90	174,30	176,55	173,58	
4	n° of students graduating annually	146,00	152,00	149,00	149,00	
5	n° of FTE support staff involved in veterinary training	148,00	148,00	145,00	147,00	
6	n° of hours of practical (non-clinical) training	703,00	703,00	703,00	703,00	
7	n° of hours of Core Clinical Training (CCT)	789,00	789,00	789,00	789,00	
8	n° of hours of VPH (including FSQ) training	338,00	338,00	338,00	338,00	
9	n° of hours of extra-mural practical training in VPH (including FSQ)	32,00	32,00	32,00	32,00	
10	n° of companion animal patients seen intra-murally	12.302,00	12.101,00	9.541,00	11.314,67	
11	n° of individual ruminant and pig patients seen intra-murally	185,00	193,00	160,00	179,33	
12	n° of equine patients seen intra-murally	415,00	373,00	310,00	366,00	
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	281,00	315,00	243,00	279,7	
14	n° of companion animal patients seen extra-murally	17,00	17,00	17,00	17,0	
15	n° of individual ruminants and pig patients seen extra-murally	16.715,00	17.674,00	18.627,00	17672,0	
16	n° of equine patients seen extra-murally	1.843,00	2.087,00	1.892,00	1940,7	
17	n° of rabbit, rodent, bird and exotic patients seen extra-murally	0,00	0,00	0,00	0,0	
19	n° of visits to poultry and farmed rabbit units	40,00	38,00	40,00	39,3	
18	n° of visits to ruminant and pig herds	122,00	124,00	135,00	127,0	
20	n° of companion animal necropsies	279,00	261,00	403,00	314,3	
21	n° of ruminant and pig necropsies	184,00	197,00	231,00	204,0	
22	n° of equine necropsies	16,00	27,00	36,00	26,3	
23	n° of rabbit, rodent, bird and exotic pet necropsies	350,00	113,00	119,00	194,0	
24	n° of FTE specialised veterinarians involved in veterinary training	47,62	46,62	45,62	46,6	
25	n° of PhD graduating annually	28,00	17,00	30,00	25,0	
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glossary




List of acronyms & abbreviations

- ANECA: National Agency for Evaluation and Accreditation
- ANEMBE: Spanish National Association of Specialists in Bovine Medicine
- ASO: Professional Associate Professor
- AVEE: Association of Veterinary Specialists in Horses
- AVEPA: Spanish Association of Veterinary Specialists in Small Animals
- BOE: Official State Bulletin
- BSL: Biosafety Level
- CDV: Conference of Deans of Veterinary Faculties
- CEMGV: Veterinary Degree Assessment and Improvement Committee
- CGCC: Establishment's Quality Assurance Commission
- CM: Autonomous Community of Madrid
- COLVEMA: Official College of Veterinarians of Madrid
- CSIC: Spanish National Research Council
- CT: Computed Tomography
- DOC: Day One Competences
- Dept: Department
- DS: Departmental Sections
- EAEVE: European Association of Establishments for Veterinary Education
- EAWC: Ethics and Animal Welfare Committee
- EBVS/ABVS: European/American Board Veterinary Specialisations
- ECA: Educational Cooperation Agreement
- EDUCM: Doctoral School of the UCM
- EHEA European Higher Education Area
- ENQA: European Association for Quality Assurance in Higher Education
- EPT: Elective Practical Training
- ERT: European Registered Toxicologist
- ESEVT: European System of Evaluation of Veterinary Training
- EvAU: Assessment for University Access
- FSQ: Food Safety and Quality
- FST: Food Science and Technology
- FTE: Full Time Equivalent
- FVM: Veterinary Faculty of Madrid
- GFSI: Global Food Safety Initiative
- GTh: Graduation Thesis
- HACCP: Hazard Analysis and Critical Control Point
- INIA: National Institute for Agro-Food Research
- IT: Information Technology
- LOMLOU: Organic Law for the Modification of the Organic Law of Universities



 $\begin{array}{c} {\tt Universidad\ Complutense\ Madrid}\\ {\tt Facultad\ de\ Veterinaria} \end{array}$



- LOSU: Organic Law University System
- LOU: Organic Law of Universities
- MRI: Magnetic Resonance Imaging
- MTh: Master Thesis
- OC: Operation Commission
- OCV: Spanish Veterinary Collegiate Organization
- OIPD: Office for the Inclusion of People with Diversity
- OPE: University Service of Practices and Employment
- PDI: Teaching and Research Staff
- PP: Pilot Plant for Hygiene, Food Technology, and Safety
- QA: Quality Assurance
- QAS Quality Assurance System
- RD: Royal Decree
- SANDACH: Animal By-Products not Destined for Human Consumption and Products Derived from Them
- SEBBM: Spanish Society of Biochemistry and Molecular Biology
- SECIVE: Spanish Veterinary Surgery Society
- SICUE: Exchange System between University Centers in Spain
- SIDI: Integrated Institutional Data System
- TF: Teaching Farm
- TUI-UCM: Smart University Card
- UCM: Complutense University of Madrid
- UCM-GIPE: Integral Management of External Practices
- UdcVet: Scientific Dissemination and Transfer Unit of the FVM
- VC: Virtual campus
- VISAVET: Veterinary Health Surveillance Centre
- VPH: Veterinary Public Health
- VPN: Virtual Private Network
- VTH: Veterinary Teaching Hospital



