EAEVE

SELF-EVALUATION REPORT 2018

UAB
Universitat Autònoma
de Barcelona

FACULTAT DE VETERINÀRIA

Contents

INTRODUCTION

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Brief history of the Establishment

The Veterinary Faculty (VFB) of the *Universitat Autònoma de Barcelona* (UAB) was created in 1982. In 1988 the main VFB building, located in the proximity of the Farm Service (FS), was inaugurated. Subsequently, the Veterinary Teaching Hospital (VTH, 1990) and the Food Technology Plant (FTP, 1992) were created. In 1999, UAB and the Institute for AgriFood Research (IRTA, Catalan Government) created the Research Centre for Animal Health which building was constructed in the VFB area and where several VFB researchers participate.

After 36 years, VFB has gained international reputation (# 9 in the Shanghai Ranking by subject of 2018). This rapid positioning was possible because of two key factors: 1) being on a campus of a big university and, 2) the great enthusiasm of the academic and support staff of the VFB. At present the VFB offers 14 veterinary residency programs, has 41 recognized research groups and 18 laboratories offering service to external clients. Moreover, graduates from the VFB are currently working in key positions in the academia, the industry, the administration and the clinical practice.

Main features of the Establishment.

- Renowned at national and international level.
- Awarded an Excellence mention by the *Agència per a la Qualitat del Sistema Universitari* (AQU) of the Catalan Government (the regional agency for quality and accreditation).
- Highly qualified teaching and research staff (35 EBVS diplomates) offering 14 residence programs.
- Modern and well-operated VTH with a very high case load.
- Supported by other UAB services as the FS and the FTP.
- High-level research.
- The only veterinary establishment in Spain offering an elective subject accredited by Federation of Laboratory Science Associations (FELASA) with regards to the functions assigned to veterinarians in directive 2010/63 / EU.

Main developments since the last Visitation.

Since the last EAEVE visit in 2007 the most important changes were:

- The implementation of a new curriculum. The new curriculum promoted the integration between different subjects. Also, students are now participating in the clinical rotations from the 3rd year to ensure a progressive acquisition of clinical knowledges and skills. The use of problem-based and case-based learning approaches based on the critical examination of the data and scientific reasoning is highly encouraged. Also, development of professional skills such as communication abilities is also encouraged.
- An Internal Quality Assurance System (IQAS) has been implemented
- The VFB building was enlarged with a whole new section of lecture and seminar rooms and laboratories.
- The VTH became a public foundation (2010) under the UAB Foundation.
- A horse isolation unit was constructed.
- In the FS, new buildings for calves were built.
- The number of EBVS diplomates and the offer for EBVS residencies increased significantly.

Major problems encountered by the Establishment.

The major problems derive from the shortcuts in the public sector during the years of the past economic crisis:

- Insufficient public financing of the VFB and of the university in general.
- Aging of the academic and support staff due to the legal constraints to the public expenses in salaries.

Version and date of the ESEVT SOP which is valid for the Visitation: ESEVT "Uppsala" SOP May 2016.

1. OBJECTIVES AND ORGANISATION

1. OBJECTIVES AND ORGANIZATION

1.1. FACTUAL INFORMATION

1.1.1. Details of the Establishment, i.e. official name, address, phone number, Email and website addresses, Establishment's Head, name and degrees of the person(s) responsible for the professional, ethical, and academic affairs of the VTH, official authority overseeing the Establishment.

Name of the Establishment: Facultat de Veterinària. Universitat Autònoma de Barcelona (UAB).

Address: Travessera dels Turons. Edifici V-Campus UAB. 08193 Cerdanyola del Vallès. Barcelona. Spain.

Telephone: +34 93 581 11 98   e-mail: dg.veterinaria@uab.cat

Website: http://www.uab.cat/veterinaria/

Dean: Dr. Maite Martín Ibáñez (Veterinarian, PhD in Veterinary Medicine).

Person responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital

- Director: Dr. Silvia Alonso Cabané (Veterinarian).
- Teaching Coordinator: Dr. Jaume Martorell (Veterinarian, PhD in Veterinary Medicine, *prof. agregado*).

Official authority overseeing the Establishment: Rector of the UAB – Prof. Margarita Arboix Arzo.

1.1.2. Summary of the Establishment Strategic Plan with an updated SWOT analysis, the mission and the objectives.

The strategic plan of the Veterinary Faculty of Barcelona (VFB) was elaborated to fulfil the mission of the Establishment and our proposed objectives.

- Mission: To train qualified veterinarians who can respond to the needs of the society, contribute to the scientific advancement and provide quality scientific and technical support to the sector.

- Objectives: The general objectives of the VFB are:

1. To ensure a quality training optimising the available resources.

2. To promote excellence in research, service and transfer of knowledge.

3. To promote efficient management procedures with a strong internal quality assurance system.

4. To increase the national and international visibility of the VFB.

5. To ensure the safety and welfare of students and staff.

The **strategic plan 2018-2021** was elaborated considering **five main lines of action**:

   a) Teaching. Since teaching is at the centre of the mission of the VFB, this area encompasses most of the actions of the present strategic plan
   b) Research and Knowledge Transfer. This area is to be developed in coordination with Departments and Services.
   c) Management. Focused on optimizing and strengthening the IQAS of the VFB.
   d) Visualization and Internationalization. Focused on promoting the perception of the centre as a pole of attraction for foreign exchange students and faculty, for research and knowledge transfer.
   e) Welfare and Safety. Aimed at improving the service to all the groups of the VFB.

SWOT analysis

Strenghts

- The Faculty is well positioned in national and international rankings.
- The Veterinary Degree and the degree in Food Science and Technology the UAB have distinct characteristics with regard to the degrees taught at other Spanish universities (for example, a greater range of elective subjects).
- The veterinary degree was awarded an Excellence mention by the University Quality Agency.
- High standard for the VTH, the FS and FTP.
- Highly qualified academic staff with a significant number of EBVS Diplomates.
- Existence of an Innovation in Teaching Committee and a motivated staff facilitating the introduction of new teaching methodologies.
- Many collaborations with companies and other entities providing an appropriate support for teaching.
- Consolidated residency programs and a high number of visiting postgraduates.
- A significant number of recognised scientific-technical services and Technical-Services Laboratories.
- A high number of international postgraduate students.
- Internationalization of research with several groups in leading positions internationally.
- Strong involvement of the students in the academic and non-academic activities carried out in the establishment.
- Well-developed IQAS

Weaknesses

- Limited visibility of the postgraduate teaching activities (Masters, diplomas, etc.)
- Limited availability of space for growth.
- Insufficient international student exchange, both for incoming students and outgoing students.
- Aging staff.
- Insufficient integration between different areas of knowledge
- High student absenteeism in theoretical lectures.
- Students have an insufficient knowledge of the career opportunities for veterinarians in different fields. This creates an imbalance towards companion animal medicine.

Opportunities

- The existence of evaluating agencies that forces a continuous monitoring.
- A favourable socioeconomic environment: a dynamic sector, leader in agri-food production.
- The emergence of new technologies and areas of knowledge: bioinformatics, precision feeding, etc.
- An increasing awareness of the importance of animal welfare and sustainable production systems.
- Location on the UAB campus provides an advantage for interacting with other centres and for using the whole range of scientific and technical services provided by the university.
- A very well-connected campus that can be reached by several public transport services.
- Proximity to the Centre for Research in Animal Health (CReSA); opportunities to share professionals and training activities.
- Increase in lectures taught directly in English.
- Interest in the media in the tasks carried out in the Faculty, which favours its visualisation.
- Greater awareness by professionals regarding their need to pursue ongoing education and training, allowing their knowledge to remain current.
- Students increasingly demanding more of the education system.
- Development of information and communication technologies that foster progress in the field of teaching innovation.

Threats

- Structural and managerial shortcomings relating to the institution itself and to public university policies in general:
    - Insufficient funds for the maintenance of infrastructures and for responding to the changing needs of the degree.
    - Insufficient executive power of the Establishment Governing Bodies.
    - Increasing bureaucracy.
    - Insufficient recognition of teaching-related work.
- The criteria for the accreditation of lecturers by quality agencies do not fit needs of the VFB.
- The legal limitation of the veterinary degree to 300 ECTS is a constraint for improvement.
- A stiff management system for postgraduate courses at the UAB.
- Competition for economic resources with other veterinary faculties.

1.1.3. **Summary of the Establishment Operating Plan with timeframe and indicators of achievement of its objectives.**

To adequately monitor the proposed actions, a series of indicators have been defined. (**Annex 1.1.** shows the full version of the strategic plan)

| STRATEGIC AXIS 1. TEACHING	
Objective 1.1. To Train First-Rate Professionals in the Fields of Veterinary Medicine & Food Science and Technology	
Actions – Timeframe	**Indicators**
Create advisory committees with external professionals in the fields of veterinary medicine and food science and technology in order to perceive and comprehend the needs of the sector. Establish a schedule for meetings. (2018)	Annual report of: • Number of improving initiatives planned and implemented. • Monitoring of the employability of new graduates. • Feed-back from EPT collaborating companies and practitioners.
Promote new graduates' job placements by strengthening the link between the Faculty and the UAB Employability Service and the institutions and entities within the sector. (2018)	Yearly monitoring new graduates' job placements
Hold professional-guidance sessions aimed at undergraduates and presented by professionals from distinct fields. (2018)	Annual report of: Enrolment rates in the elective subjects
Establish a plan to monitor the evolution of quality standards set by regional, national and international evaluation agencies, so as to improve the studies imparted at the centre. (2019)	Yearly assessment of the improvements introduced
Promote the horizontal and vertical coordination of subject content through dedicated meetings. (2018)	Evaluation of improvements resulting from the coordination meetings. (Every semester)
Through the Teaching-Innovation Committee (TIC), foster improvements in the assessment methodologies used and, in their programming. (2018)	Annual report of: methods used for the subjects and their programming.
Draw up a plan to monitor the companies and entities in which students carry out their EPT (2019).	(Academic year) • Student assessment of the company or entity in which internships were carried out. • Lecturer-tutor assessment of the institution in which internships were carried out.
Objective 1.2. To optimise Material and Human Resources in Order to Guarantee Teaching Quality	
Actions	**Indicators**
Promote the use of VFB for and meetings. Prepare a brochure with rates of hire for available space in the centre and arrange for its dissemination. (2019)	Annual report of: Amount of external resources obtained.
Create a repository of materials needed for practicums so that students are not required to purchase such items. (2019)	Yearly evaluation of the management of this repository and of its use.
To promote the Animal-Body Donation Programme. (2018)	Annual report of: nº of donations.
Establish a plan for facilitating the acquisition of teaching equipment. (2018)	Annual inventory of acquired equipment.
Support the UAB Veterinary Digital Library in two areas: open access and UAB network access. (2018)	Annual inventory of: • nº of new open access resources. • nº of collections created. • nº of digitised collections. • nº new titles purchased.
Objective 1.3. To Promote Postgraduate Training	
Actions	**Indicators**
Create new master's degrees and postgraduate courses that respond to the needs of the sector. (2018)	Annual report of: nº of new postgraduate degrees.
Prepare an informative brochure on the postgraduate training carried out in the centre; disseminate this to institutions and entities in the sector. (2019)	Annual report of: nº of students registered in the postgraduate training offers.
Promote online postgraduate training through dedicated meetings with the centre's Teaching Staff. (2019)	Annual report of: nº of online postgraduate courses created.
STRATEGIC AXIS 2. RESEARCH & TRANSFERENCE	
Objective 2.1. To Promote the Research and Transfer Activities Carried Out in the Faculty	
Actions	**Indicators**
Hold dedicated meetings and dissemination activities for the interaction of the consolidated research groups and services within the centre. (2019)	Annual report of: nº synergies created among the consolidated research groups.
Establish an axis of collaboration between the Faculty and the VTH, with regard to research and knowledge transfer, through dedicated meetings. (2019)	Annual report of: nº of collaborations created.
Objective 2.2. To Improve those Services and Infrastructures that Support Research and Transfer.	
Actions	**Indicators**

Prepare a catalogue of existing facilities in the centre. Monitor facilities shared among depart (2020)	Report of the results deriving from the report and creation of a renewal plan.
Improve the specific infrastructures supporting research through joint actions undertaken by the Deanery and the directors of the FS and the FTP. (2018)	Annual report of: nº of actions carried out and improvements introduced.
Promote the open incorporation of the research produced by teaching staff (publications and research data) (218)	Annual report of: • nº of documents incorporated in open access. • Nº of research groups created in the DDD. • Nº of open access research datasets.

Objective 2.3. To Support the Scientific-Technical Services Located in the Centre	
Actions	**Indicators**
Prepare a catalogue of the scientific-technical services and service provision laboratories to disseminate these among institutions and entities within the sector. (2020)	Annual report of: Invoicing

STRATEGIC AXIS 3. MANAGEMENT	
Objective 3.1. To Promote Improvement in Management Tasks	
Actions	**Indicators**
Define the rights and duties of lecturers responsible for subjects, year coordinators and practicum coordinators. (2019)	Draft document for approval by the Faculty Board (FB).
Prepare a protocol for the management of lecture programming. Define responsibilities for each process. (2019)	Draft document for approval by the FB.

Objective 3.2. To Reinforce the Internal Quality-Assurance System	
Actions	**Indicators**
Review the Internal Quality Assurance System (IQAS) to improve performance. (2019)	Definition of the responsibilities for each of the processes, updating and simplification of all indicators.
Follow up on the evolution of IQAS indicators to implement improvements. (2019)	Annual report of: nº of improvements introduced deriving from the IQAS follow-up.

STRATEGIC AXIS 4. VISUALISATION AND INTERNATIONALISATION	
Objective 4.1. To Increase the Visibility of the Faculty both Nationally and Internationally	
Actions	**Indicators**
Promote the holding of sessions, conferences, workshops and other types of events and meetings organised by external institutions and entities in the VFB. (2018)	Annual report of: nº events.
Promote online postgraduate training through specific meetings with the centre's Teaching Staff. (2019)	Annual report of: nº of new online courses.

Objective 4.2. To Promote Teaching in English	
Actions	**Indicators**
Increase lecturing in English in the studies taught within the centre, assuring quality. (2018)	Annual report of: nº of hours taught in English (pre and postgraduate degrees).

Objective 4.3. To Promote Student, Support Staff and Teaching Staff Mobility	
Actions	**Indicators**
Draft a report including the number of participating students, Support Staff and Teaching Staff in the corresponding mobility programmes over the last three years. (2019)	Draft document for approval by the FB.
Promote student mobility through information sessions. (2018)	Annual report of: nº of outgoing students.
Improve channels of communication with respect to mobility grants for Support Staff and the Teaching Staff. (2018)	Annual report of: nº of outgoing Support Staff and Teaching Staff on mobility programmes.

STRATEGIC AXIS 5. WELFARE & COMMUNITY SAFETY	
Objective 5.1. To Improve the Attention Provided to the Welfare and Security of Students	
Actions	**Indicators**
Adapt the centre's tutorial action plan to the general framework of the UAB's tutorial action plan. (2018)	Draft document for approval by the FB.
Develop an action protocol to meet the needs of students with special circumstances. (2018)	Presentation of the protocol to the FB and its dissemination to the Teaching Staff.
Improve security in laboratories and in the places where practical/clinical training is carried out. (2018)	Annual report of: • Dedicated information sessions. • Publication of the practical guideline texts with the corresponding security measures. • Preparation of tests for students. • nº improvement actions implement
Improve the spaces used by the centre's student associations. (2018)	Evaluation of proposals presented by the students.

Objective 5.2. To Improve the Attention Provided to the Welfare and Security of Support Staff and Teaching Staff	
Actions	**Indicators**
Improve attendance of Support Staff and Teaching Staff in dedicated courses on security. (2018)	Annual report of: nº of staff participating in such courses

1.1.4. Organisational chart of the Establishment

Figure 1.1. shows the organisational chart. The main regulatory frame of the VFB are the **VFB Regulations** establishing the functions of the VFB as well as the structure and composition of its governing bodies. The VFB oversees the academic and administrative management of the imparted degrees, including the programming of academic activities, the revision of the study programs, the issuing of academic certificates and the management of the budget. The **VFB is headed by the Dean and the Dean's Team who are elected by the Faculty Board (FB)**. **Annex 1.2.** shows the current composition of the Governing Team of the VFB.

Departments are independent bodies in which academic, administrative and support staff and researchers -including postgraduate students- are grouped based on the area of knowledge in which they work. Only non-academic personnel belonging to central (UAB or VFB) services are not in a Department. Departments are responsible for imparting the program of the VFB according to the VFB planning. The administrative and support staff working at the VFB (regardless if they work for a Department or for VFB service) is headed by the Establishment Administrator (EA).

Figure 1.1. Organisational chart
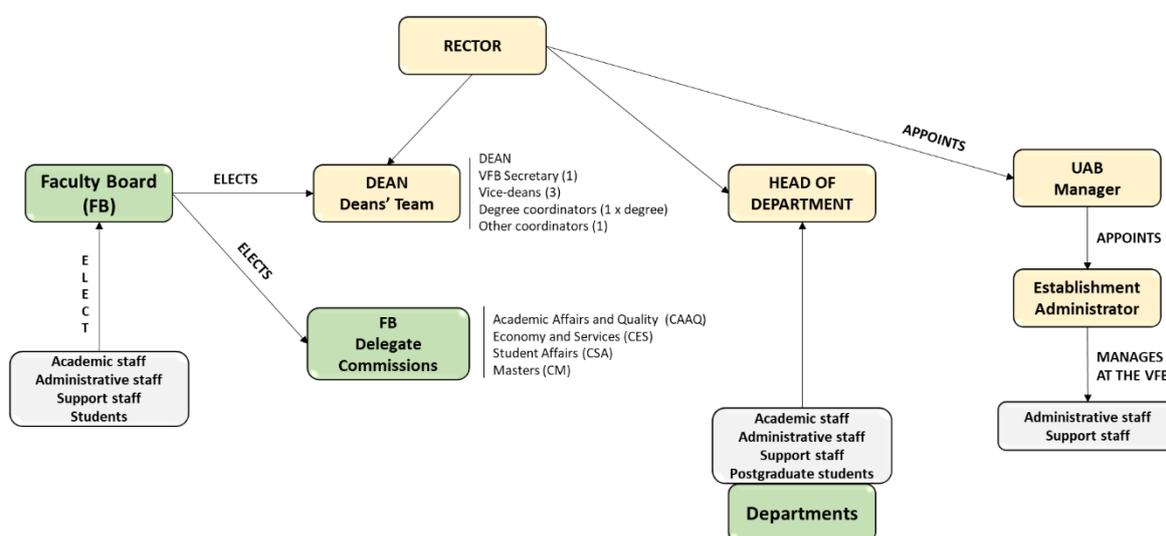
1.1.5. List of departments/units/clinics and councils/boards/committees with a very brief description of the composition/function/responsibilities.

The Faculty Board and the VFB commissions: The FB, chaired by the Dean, is the highest governing body of the VFB. Its main functions are to ensure the implementation of the establishment policies and to develop and modify the curriculum. The FB has 60 seats of which 13 are *ex officio* seats for the Dean and the Dean's Team, the heads of the main VFB departments and other managerial positions of the VFB and 47 are elected members representing the academic (20) and the administrative and support staff (4), non-permanent positions (5) and the students (18).

The FB may delegate some functions to commissions in accordance with the regulations of the VFB. At present, the FB has the following **delegate commissions**:

- Commission for Academic Affairs and Quality (CAAQ): One for each degree. The main function of the CAAQ is to ensure the correct application of the study program: accomplishment of learning objectives, coordination of subjects, management, monitoring and revision of the curriculum, etc. Is chaired by the DC and have representatives of the academic and administrative staff and students.
- Commission for Economy and Services (CES): The main functions of this commission are to prepare the annual budget of the faculty, to manage investments and to establish the equipment and services' needs. Is chaired by the ES vice-dean and have representatives from all sectors as above.
- Commission for Student Affairs (CSA): Its main functions are to assess the needs of the student body, disseminate information about scholarships and grants to students, as well as carry out tasks of organization and university cultural

outreach activities (extension). Chaired by the SA vice-dean and with three students, members of the cultural associations, two representatives of the teaching staff and one of the administrative staff.
- <u>Commission for Masters (CM)</u>: The main functions of this Commission are to analyse the proposals presented, to support the masters and to follow-up the development of the masters. Chaired by the vice dean for Academic Affairs and Quality (AAQ). All sectors involved are represented.

The **External Advisory Board** (12 members, created 2017) is a body composed by veterinarians coming from the private practice, the industry, the administration and other professional areas. This board gives advice in all the aspects related to the needs of the society regarding the training of veterinary students. Also, the board helps to strengthen the ties of the VFB with the profession and the society in general.

There are two other advisory committees: The **Teaching Innovation Committee (TIC)** and the **Security Committee**. The first proposes new teaching methods for potential application in the veterinary program and the second advices on security measures, particularly with regards to teaching activities.

- **Departments (see annex 1.3.)**
All the academic staff belongs to a department representing one or more areas of knowledge. The departments are responsible for the assignment of academic staff to the different teaching activities programmed by the VFB. A department can be formed by several units. **There are three departments which teaching activity is carried out almost exclusively at the VFB: Animal and Food Sciences, Animal Health and Anatomy, Veterinary Medicine and Surgery.** Teachers who lecture at the VFB and belong to departments other than those mentioned above (Animal and Vegetal Biology and Ecology, Biochemistry and Molecular Biology; Cell Biology, Physiology and Immunology; Mathematics; Pharmacology, Therapeutics and Toxicology) are grouped in a body called "Interdepartmental Unit".

The **main governing bodies of the Departments** are: a) the **Head of the Department**, who exercises the functions of direction, and is its highest representative. She/he is assisted in her/his functions by the Secretary of the Department and, b) The Department Council who is responsible for convening the Head elections, approving the budget and carrying out the coordination and monitoring tasks, proposing PhD programs, etc.

- **Establishment Administrator**
The EA oversees the administrative management of the VFB and acts as head of all the personnel working at the VFB, regardless of whether they are working in a Department or in a central service. Three main offices manage the different areas of the VFB:
  - <u>Academic Management Office</u>. It is responsible for the administrative tasks related to the enrolment of students, the student exchange programs and all other administrative tasks including academic student affairs.
  - <u>Economic Management Office</u>. Manages the VFB budget.
  - <u>Logistics Support and Information Point</u> is responsible for the supervision of basic services (water, electricity, cleaning, equipment of the classrooms, etc.) and to provide appropriate information to students, faculty and visitors.

- **The Veterinary Teaching Hospital and other support services**
To fulfil the learning objectives of the veterinary program, the VFB has the support of different services and structures among which the most relevant are the VTH, the FS, the FTP, the Library and the Multimedia Service. Figure 1.2. summarizes these services and structures.

Figure 1.2. Services and structures supporting teaching activities at the VFB.
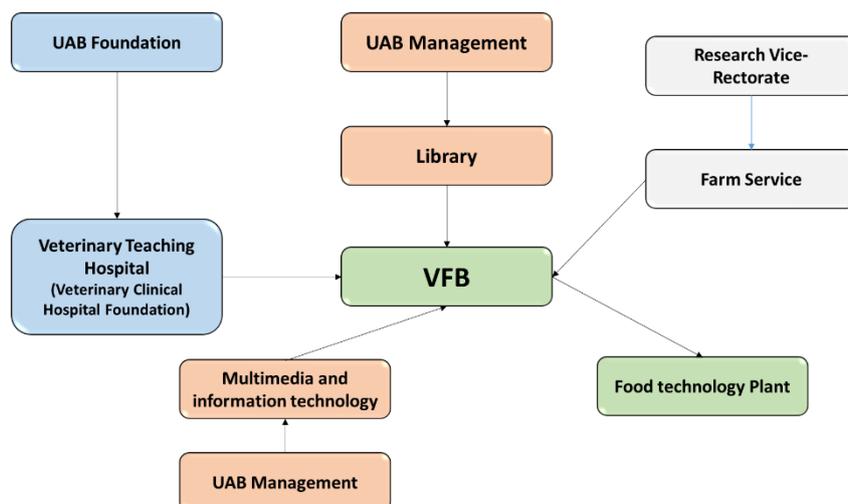
The Veterinary Teaching Hospital is organised as a foundation. The **composition of its Board of Trustees** is as follows: The Rector of the UAB (president), three vice-rectors, the UAB Manager, a representative of the Social Council of the UAB, the General Director of the UAB Foundation and the Dean of the VFB. The Board of Trustees appoints a director of the VTH and delegates in him/her the ordinary management tasks.

Two persons ensure the **coordination and organization of the clinical and teaching activities** at the VTH:

- **A teaching coordinator**: Appointed by agreement between the VFB and the Director of the VTH for a 4-year period among the candidates proposed by the Department of Veterinary Medicine and Surgery. The teaching coordinator is responsible for the adequate development of clinical teaching in the VTH according to the learning objectives of the program.
- **A clinical coordinator**: Appointed by the Director of the VTH for 4-year period and ratified by the Board of Trustees. The coordinator is responsible for assuring the proper functioning of the clinical services. Both the teaching coordinator and the clinical coordinator are veterinarians.

The VTH is organized in clinical services, corresponding to the medical specialties offered. The Director of the VTH appoints a Head of each service, preferentially a European College Diplomate.

The clinical staff of the VTH is composed of full-time and part-time professors of the Department of Veterinary Medicine and Surgery plus veterinarians and technicians of the own VTH staff. The department distributes the clinical teaching duties among its academic staff of the department. In addition, teachers of the department contribute to the 24/7 operation through a specific agreement of assistance collaboration.

The FS, officially designated as **Farms and Experimental Fields Service**, acts as a UAB unit supporting teaching and research. There is a scientific and a technical director appointed by the Rector. The technical director is responsible for the ordinary management of the FS while the scientific director manages the strategic plan and the scientific activities. The FS also has an Animal Welfare Advisor, a Quality and Safety Manager and technical and administrative staff. Although the FS is under the Vice-rectorate of Research, **the VFB is represented in its governing body: The Executive Committee**. In addition, a User Commission monitors the activities carried out by the service.

The Food Technology Plant is also a unit supporting teaching and research. Until December 2017, the FTP was a scientific-technical service of the UAB similarly to the FS. From that date, a transition period opened and from 2019 **the FTP will become a teaching service assigned to the VFB**. The framework in which these services must operate is under final development. Ordinary operation of the FTP is under the responsibility of a technical director and similarly to other services there is a Commission of Users to monitor its functioning.

The VFB Library also acts as a support service. Details are explained in chapter 6.

The **Multimedia and Information Technology Service** of the VFB is a branch of the **Distributed Computing Service** under the Directorate of Information Technology and Communication of the UAB. It provides support to the VFB regarding information technologies. A Technical Manager is the Head of this service. There is a Users' Commission like that of other services.

1.1.6. Description of how and by who the strategic plan and the organization of the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The organization of the VFB is largely stablished by national legislation, whereas the composition, functions and responsibilities of the different governing bodies are defined by the Statutes of the UAB. The VFB has autonomy regarding the ordinary management including the use of the budget assigned by the UAB. Decisions taken by the VFB governing bodies are published in the website and are sent by email.

The **Strategic Plan 2018-2021 was elaborated with a bottom to top approach**. Initially, several meetings were organized with staff, students and stakeholders to gather the opinions and suggestions of all the collectives. From the minutes of those meetings, a draft was prepared by the Dean's Team. The draft was presented to the FB for discussion and published afterwards in the VFB website for additional comments, amendments and further suggestions. A revised draft was produced and presented to the FB for final approval (23rd May 2018). Revision of the strategic plan correspond to the Dean's Team and the FB. The strategic plan is publicly available through the VFB website.

1.2. COMMENTS

In 2015/2016 year, the University of Lleida started an official Veterinary Degree. This implied that the VFB no longer is the only establishment offering a Veterinary Degree in Catalonia. However, no decrease in the number of applicants have been observed.

Regarding organization, the fact that part of the intramural teaching take place in structures differentiated from the VFB (VTH, FS) implies the need for a high level of coordination. The mechanisms stablished to ensure such are effective.

The conversion of FTP to a teaching service is an opportunity but also creates a need for resources directed to the sustaining of such a service.

Finally, the creation of the External Veterinary Advisory Board will allow the VFB to provide a better match between its educational programmes and the needs of the profession and the community. In this sense, the constant communication between the advisory board and the establishment will be fundamental to face together the new challenges of the profession.

1.3. SUGGESTIONS FOR IMPROVEMENT

The implementation of the actions indicated in the strategic plan is imperative. This will help to alleviate our weaknesses and will focus the efforts towards the consecution of the planned objectives.

Regarding organization, it is necessary to establish a coordinated plan with the different non-VFB structures and services supporting teaching for the consecution of additional resources.

2. FINANCES

2. FINANCES

2.1. FACTUAL INFORMATION

2.1.1. Description of the global financial process of the Establishment.

The financing of the Establishment (Figure 2.1.) is the result of a combination of a **centralised budget,** held by the University and accounting for most of the fixed current expenses and investment (personnel, water, power, gas, gardening, building maintenance, etc.) and, a **decentralised budget that** is distributed by the University to each establishment and department according to a formula. This decentralised budget is mainly for teaching needs in a broad sense. It is intended to **pay mainly for academic and teaching expenses (for example, laboratory consumables, office material, etc.)**. **Each faculty or department has full autonomy in the use of the decentralised budget.**

Figure 2.1. Main sources of funding of the University and internal distribution of the expenditure.
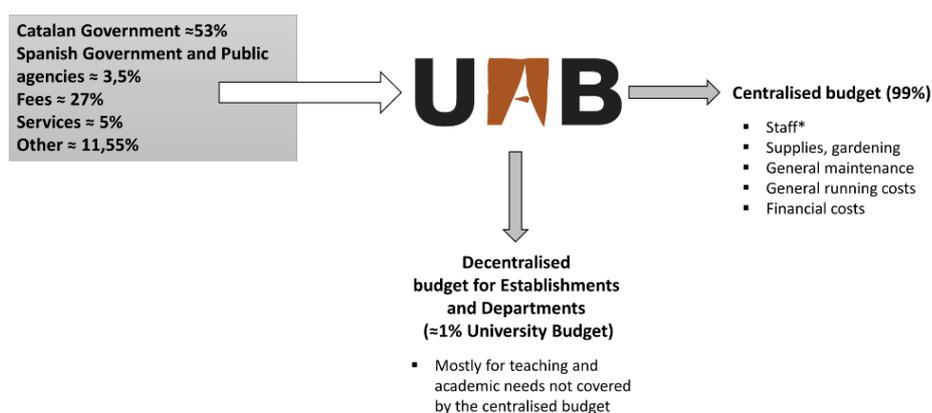
The elaboration of the budget starts with the assignation to the university of funds from public sources (about 53-54% of the UAB budget). Enrolment fees and taxes paid by the students are added (26-27% of the budget). **Annex 2.1.** shows the breakdown of the UAB budget. Then, the Government of the UAB elaborates a draft of the budget according to the mandate of the University's Senate ("Claustre") and all other regulations applying to the case. This draft is sent to faculties, departments, etc. for discussion. Then, the draft is sent to the Economy Commission of the University for amendment and approval. If approved, the budget is submitted to the Government Council and, if approved, is sent to the Social Council for final approval. If rejected at any stage, a new draft must be elaborated. Given the centralised system of expenditure of the UAB, the **UAB central budget accounts for more than 95% of the Establishment current expenditure**.

The **decentralised budget distribution model establishes the amount that each faculty or department will receive under this concept**. The sum of credits for all the students enrolled at a given establishment is the primary value in this calculation but the total number of hours imparted in each establishment is also considered. Since different activities can be carried out in different group sizes, the number of imparted hours may vary substantially in different degrees or even between years. Finally, the calculation applies a Specificity Index (SI) to reflect the different costs of imparting one credit in different degrees. This value multiplies the number of credits calculated before. The index of the VFB is 4.2., the highest in the campus. An additional 5% of the budget is reserved for strategic objectives that, if achieved, grant additional resources (e.g. Excellence Award mentions by quality agencies).

The model for the distribution of the decentralised budget is proposed by a sub-commission with representatives of faculties and departments and then approved in the Economy Commission of the UAB. Final ratification by the Government Council is required.

Necropsy facilities are integrated in the centralised (fixed operating costs and supplies) and decentralised budgets (variable costs). Similarly, for FS and FTP variable teaching costs are paid by the VFB while ordinary operation costs are

paid centrally by the university. The FTP expenditures and revenues will be incorporated to the VFB effective in 2019 because the change of its status.

A special case regarding funding is the VTH. From a legal point of view, the **VTH is an independent body under the form of a foundation which patron is the UAB Foundation**. Given that the VTH is a non-profit institution, final balance must be 0 or, if surplus happens, the difference must be re-invested in the VTH. If the balance is negative, the UAB Foundation backs the difference. The costs related to the specific teaching activities carried out at the VTH to fulfil the curriculum objectives are transferred from UAB to VFB and to VFB to VTH. This amount is calculated based on the number of credits imparted by the VTH (calculated according to an agreement that was signed between the UAB and the VTH after the transformation of the VTH to a foundation). **Annex 2.2.** shows expenditures and revenues for the FS, the VTH and the FTP.

2.1.2. Degree of autonomy of the Establishment on the financial process

The Establishment has full autonomy in the use of the decentralised budget. Revenues obtained by the VFB by its own can be used with full autonomy as well (services, etc.)

2.1.3. % of overhead to be paid to the official authority overseeing the Establishment on revenues from services and research grants.

The overhead is 21%.

2.1.4. Annual tuition fee for national and international students

Fees in public universities are determined by the Catalan Government through the Decree 88/2017. The decree categorises the different degrees in three groups (A, B, C) based on the costs of imparting each one. The Veterinary Degree is classified in group C together with Medicine and other health-related degrees. The basic cost per enrolled ECTS is 39.35€ but discounts up to 80% can be applied based on the income of the applicant and the number of persons in the household. **Full tuition fees are not considered for neither EU nor non-EU students.** Besides the cost of the credits, some taxes and insurance costs apply (from 69.80€ to 155.73 € depending on the individual circumstances).

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

The UAB has a centralised expenditure system that accounts for most of the 95% of the VFB expenditure.

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

A new kennel to allocate dogs for exclusive teaching purpose will start in the fourth trimester of 2018. This kennel is paid by the university funds. No other major investments are planned for 2019-2020.

2.1.7. Prospected expenditures and revenues for the next 3 academic years.

It is expected to have additional funding from the UAB aimed at increasing hands on clinical activities both intramurally and extramurally. Additional funding for transportation of students is expected as well. Currently, all these aspects are being discussed with the Rectorate.

2.1.8. Description of how and by who expenditures, investments and revenues are decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The ES vice dean and the EA prepare a draft with the expected distribution of the decentralised budget expenditure. This draft is presented to the CES. Once approved, the expected expenditure distribution is elevated to the FB for approval. At the end of the fiscal year, the breakdown of the expenditures of the past year is presented to the CES for approval and then to the FB for ratification. Decisions of the CES and FB are disseminated through the VFB webpage and by email.

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

Area	2017	2016	2015
Academic staff	6,803,540.02	6,695,626.92	6,456,397.83
Administrative and support staff	2,993,185.59	2,821,820.69	2,637,615.86
Running costs	1,525,034.26	1,540,118.96	1,545,334.77
Maintenance and repair	26,339.42	14,397.08	17,515.54
Equipment and investment	125,146.73	114,349.46	102,600.19
Clinical teaching activities at VTH	642,224.00	642,224.00	642,224.00
Decentralised teaching expenditure	104,967.45	103,881.56	97,936.31
Other decentralised expenditure	91,969.93	70,365.65	57,150.35
Total expenditure before research	**12,312,407.40**	**12,002,784.32**	**11,556,774.85**
Research and service associated staff	1,402,495.36	1,351,198.98	1,310,639.06
Total	**13,714,902.76**	**13,353,983.30**	**12,867,413.91**

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

	Area	2017	2016	2015
Public authorities	Academic staff*	6,803,540.02	6,695,626.92	6,456,397.83
	Administrative and support staff*	2,993,185.59	2,821,820.69	2,637,615.86
	Decentralised Budget	130,912.80	166,770.49	145,308.19
Fees	Fees (standard students)	1,502,762.31	1,568,034.68	1,597,599.19
	Fees (full fee)	N.A.	N.A.	N.A.
Continuous education	Continuous education	1,111,512.55	1,341,156.07	1,083,331.63
Donation	Donations	0	0	0
Other sources	Other sources	240,828.12	507,650.79	70,790.72
	Total before research and services	**12,782,741.39**	**13,101,059.64**	**11,991,043.42**
Research grants	Research grants	1,231,747.42	979,332.73	1,238,493.65
Services	Scientific and non-clinical services**	4,484,292.03	3,768,928.27	2,654,685.13
	Total	**18,498,780.84**	**17,849,320.64**	**15,884,222.20**

*Since the cost of personnel is paid centrally by the UAB, this amount is considered both an income (for the VFB) and an expenditure (for UAB). N.A. Does not apply
** As explained above, clinical services are provided by the VTH which budget is separated from the VFB

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

	2017	2016	2015
Revenues	12,782,741.39	13,101,059.64	11,991,043.42
Expenditures	12,312,407.40	12,002,784.32	11,556,774.85
Balance before research and service	**470,339.99**	**1,098,275.32**	**434,268.57**

The large difference between revenue and expenditure is due to tuition fees, which are collected and managed centrally by the Rectorate and are not delivered directly to the VFB.

2.2. COMMENTS

The main financial issue of the VFB arise from the economic shortages of these past years because of the economic crisis. Major impacts have been noticed in the budget allocated to the maintenance and renewal of equipment and facilities. This seems to be changing now but some time will be needed to restore financing to pre-crisis level.

2.3. SUGGESTIONS FOR IMPROVEMENT

It is imperative to promote the visibility of the VFB as a place to hold meetings, mini-symposia and other activities that can be an additional source of revenues. Similarly, promotion of VFB services will help to increase the available income.

3. CURRICULUM

3. CURRICULUM

3.1. FACTUAL INFORMATION

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

The veterinary profession faces a series of **challenges in the 21ˢᵗ century**. The increasing pace at which knowledge is produced nowadays makes it evident that all scientific professions will require **more specialisation in the coming years**. Nevertheless, this increase in knowledge also makes evident that the understanding of the complexity of biological phenomena requires an integrative and **multidisciplinary approach**. The One Health concept is an example of this.

The 21ˢᵗ century veterinarians must be proficient in the classical areas of work (pets and livestock, food safety, public health, etc.) but also need a solid scientific basis. Developing the skills for facing the multidisciplinary environment in which they will probably work is key.

Within this framework, **the VFB opted for changing the older veterinary curriculum into a new one with more integrative features (see Annex 3.1.)**. Besides the veterinary-specific competences, emphasis was placed on major transversal competences such as the development of: problem-solving capabilities, critical thinking, the ability to work in teams, the ability to communicate and the ability to keep knowledge updated (lifelong learning).

To achieve these objectives, the design of the new curriculum was based on:

1. A list of the specific (subject-related) and transferable competences that the student must acquire to comply with the general objectives and the Day-One competences. This list allowed a clear definition of the contents that should be taught and facilitated the assessment. (**Annexes 3.2. and 3.3** show the alignment of the curriculum with the Day-One competences and the underpinning knowledge and understanding requirements respectively).
2. The integration of subjects based on relatedness with the aim of providing the student with a global view. Some examples of the new subjects are: a) *Structure and Function of Nervous System*, which integrates the anatomical, histological and functional concepts regarding the nervous system or b) *Exploratory Methods*, which integrates all the basic knowledge in clinical examination (physical exploration, imaging techniques, sample collection, etc.).
3. A significant increase—compared to the previous curriculum— in the number of hours dedicated to practical and hands-on sessions.
4. The promotion of problem-solving and case-based methodologies, either individually or in groups.
5. The promotion of assessment methodologies based on written and oral reports, oral presentations and other activities aimed to improve the communication skills.
6. The assurance that students have the necessary time for study and self-learning activities.
7. Maintaining a proportion of more specialised elective subjects (10% of all curriculum) for coping with the need of increasing specialisation (small animal/equine clinics, livestock, food safety, laboratory animals and research).

The integrative structure of the curriculum requires **considerable coordination** and the **constant supervision by the CAAQ** to ensure that all the learning outcomes associated with the different specific competences are covered. As detailed in 3.1.3., monitoring of the curriculum involves students and staff in several management bodies which ensure its cohesion.

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

As a member of the EU, Spain transposed Directive 2005/36/EC and all other applicable regulations. Royal Decree 1393/2007 and its modifications regulate higher education in Spain. This decree establishes that any degree must contain a minimum of 25% of the planned ECTS allocated to basic subjects. Of these, at least 60% must belong to one or more of the following subjects: anatomy, biology, biochemistry, statistics, physiology, physics or psychology. In addition, the

decree establishes that all degrees must contain a final degree assignment of no less than 6 ECTS. **Order ECI 333/2008 establishes the duration of the veterinary curriculum at 300 ECTS, distributed over 5 years, i.e., 10 semesters.** The current programme of the VFB was designed and approved in accordance with the abovementioned regulations, following the IQAS of the VFB (*PE3 process: creation and design of new degrees*). The programme was verified by ANECA [1] (Spanish Agency for Evaluation of Quality and Accreditation) in 2010 for the accomplishment of Spanish and EU regulations (Degree registered in the Ministry of Education with code n° 2502445).

The programme is monitored on a regular basis for detection of problems and adaptation to changing needs. **Modifications of the programme that only affect the daily organisation, the assessment methodology of a subject or the change of the typology of hours for a subject (for example, changes from theoretical lectures to practical work) can be autonomously approved by the VFB (CAAQ or FB).**

Changes such as a modification to the distribution of credits between the subjects belonging to the same type of credits (basic, compulsory, optional) may be approved following the same process as above with additional ratification by the university if they do not exceed 7.5% of the total number of credits of that type. Similar modifications affecting between 7.5% and 15% of the credits of a given type also require the approval by the regional or national quality agencies. In these cases, the changes must be performed according the corresponding process of the IQAS (PC8A: *Modification of Undergraduate and Master's degrees programmes*). Modifications of >15% of the credits lead to the extinction of the degree and the need to create a new one.

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

In the present system of curriculum monitoring, the identification of gaps and problems is undertaken at different levels. The first level is the **monitoring and verification of the study guide** (SG) for each subject. The SG is a detailed summary of the content, activities, assessment methods, competences and learning outcomes for a given course or subject. Every year the DC verifies that the content of the SG drawn up by the person responsible of each course (designated as **subject coordinator, SC**) agrees with what is in the programme design.

At a second level, after **every semester students are requested to complete a survey** regarding each subject. Results of that survey, as well as any other relevant aspects, are discussed in a **meeting with student representatives** in the presence of the DC and the year coordinator——the teacher who monitors the daily development of every year of the curriculum––who produce a **written report of the meeting**. The third level is the **CAAQ**, the body dealing with all issues concerning teaching activities, assessment and coordination between subjects and semesters. The DC is the chair of this committee and his/her duties include the detection of overlaps, redundancies or omissions. Finally, any member of the community may bring to the attention of the FB a problem in the teaching or in the coordination.

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

The curriculum is aimed at a progressive acquisition of knowledges and skills. It is expected that a student starting a clinical rotation should be able to identify, handle and restrain the most common domestic animals, to make a basic case history and to know how to perform a differential diagnosis, take simple biological samples, act according with ethical standards as well as have basic knowledge about clinical and diagnostic procedures, biosecurity, public health and food hygiene.

In the **1st year**, students are trained in **management and identification** of both livestock and companion animals. In *Animal Production and Handling,* students learn how to manage individual animals and animal populations in the framework of animal welfare. They perform **hands-on work with dogs, cows, sheep, poultry, pigs, horses and rabbits both intramurally and extramurally**. In *Ethnology and Ethology* students **handle farm animals** in order to learn about

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[1] Agencia Nacional de Evaluación de la Calidad y Acreditación, http://www.aneca.es

their morphological characteristics and identification. Similarly, in *Microbiology* students **learn how to take simple samples such as nasal or rectal swabs**, in farm animals (sheep) for further analysis.

In the 2nd year, several subjects **introduce the physical examination of the animal** (*Exploratory Methods, Physiology*) and the students are also trained in **necropsy** techniques in different animal species as well as on **how to take samples during the necropsy**. Also, the students are taught the **basics of diagnostic imaging and radioprotection** (X-ray, echography, tomography, etc.) **using the facilities of the VTH** and materials from the cases arriving for diagnosis during the week of stay at the VTH. Training in haematology, clinical biochemistry, etc. is also carried out (*Exploratory Methods*). The basics of diagnostic pathology (tumours, diseases caused by deposits, inflammatory diseases, etc.) and the examination of cases is also learnt this year (*Pathology*).

In the 3rd year students are taught the aseptic method, basic surgical and anaesthetic techniques, intubation, blood sampling in dogs and cats, respiratory support (*Surgery and Anesthesiology, 3rd year*). In *Livestock Medicine and Surgery* and *Animal Reproduction* the students learn all the basic information related to these disciplines, including but not limited to the physical examination of the reproductive tract, insemination techniques and the identification of the most common disorders, basic exploration and clinical diagnosis of livestock including cows, sheep and goats, etc. including extra-mural on-farm activities

Between the 3rd and 4th years students are taught about infectious and parasitic diseases, special pathologies in the different species, advanced sample collection, and all the basics of internal medicine for companion animals and population medicine approaches (Medicine and Surgery of Companion Animals I, Animal Health I, II, III). Also, they learn how to approach the diagnosis of cases in different species and areas by means of seminars and presentations.

Regarding **public health and food safety**, students learn concepts related to food science and technology in the 2nd year and food safety and zoonoses are taught in the 4th year. Public health aspects are introduced in the 2nd year (*Epidemiology and Statistics*), and 4th year (*Health Policy and Diseases of Legal Importance*).

In short, students have contact with animals from the first year when they learn the basics of handling. They are immersed in the clinical environment of the VTH from the second year and by the 3rd year they are actively involved in the clinical procedures, assisting as anaesthesiologists in the neutering of cats. **This progressive introduction in the clinical activities from the first year prepares students for the start of the clinical rotations** between the 3rd and 5th years.

3.1.5 Description of the core clinical rotations and emergency services and the direct involvement of undergraduate students in them

Core clinical rotations and emergency services take place in the 3rd, 4th and 5th years including Anaesthesiology and Surgery, Medicine and Surgery of Companion Animals II, Integrated practice in Animal Health, Equine Medicine and Surgery, Clinical Rotation at the VTH and Public Health Rotation.

In the 3rd year, students spend one week in the VTH assisting the surgeons as anaesthesiologists. In addition, they assist in the neutering of cats received from shelters in the framework of sterilisation campaigns. Also, that year students enrol in ambulatory clinics for Livestock Medicine and Surgery (cows). **In the 4th year**, they spend five weeks in hands-on work in the rotation of Medicine and Surgery of Companion Animals II, one week in the rotation of Equine Medicine and Surgery, three weeks in the rotation of diagnostic pathology and infectious diseases, one week in ambulatory clinics for livestock (pigs, poultry and rabbits) as well as in ambulatory medicine for horses and in dog shelters.

The aim of *Clinical Rotation at the VTH* (**5th year**) is to immerse students in everyday clinical practice offering an integrative view through participation in the different services of the VTH. **Before the start** of this activity, the students **must attend four introductory seminars** on the activities that they will have to perform. **Then, for one month, the students are included in the shifts of the VTH rotating in different services** (8 am to 2 pm, 2 pm to 8 pm and 8 pm to 8 am). The Clinical Rotation at the VTH is organised in groups of five students that are previously assigned to different shifts (day, night, weekend) and services. **In practical terms, this planning allows each student to be assigned individually to each activity under the supervision of one teacher.** During their rotations students have to complete a

logbook, in which they **record the cases received** including a brief description of the clinical diagnosis, procedures performed, and treatments applied.

Each student must complete 1 week of rotation at each of the following services: Internal Medicine Service and General Consultations, Hospitalisation, Intensive Care Unit and Emergency Service, Surgery and Postoperative Care Service plus 1 week in chosen specialist area (dermatology, neurology, exotic animals, diagnostic imaging, etc.).

The **summary of activities** undertaken during the rotation at the VTH is as follows:

- First opinion and internal medicine referrals (36h)
- Small animal surgery: soft tissue surgeries, elective and emergencies. Also, our students attend a cat rescue centre in Barcelona where they perform castrations and spays under supervision. (30 h)
- Small animal intensive care unit and emergency service (36h)
- Shift in the Exotic Animals Service (4)
- Specialist area of choice. (36 h)

In addition, the students attend **clinical seminars** on nutritional support in hospitalised companion animals, pre-analytical and analytical considerations in clinical biochemistry, case-based interpretation in haematology and biochemistry and aggressiveness in dogs and other common behaviour disorders

At the end of the *Clinical Rotation at the VTH* the students must participate in several case discussion sessions to discuss cases including, at least:

a) **An oral presentation of a case in which the student had been involved** during the rotation. This presentation is aims to demonstrate their level of clinical reasoning and integration of knowledge as well as their ability to communicate with peers.
b) One **discussion session of a case with legal and/or ethical implications**. The aim of the session is to evaluate the acquisition of good professional behaviour and ethical standards and knowledge of legal regulations.
c) One **presentation of a case involving diagnostic pathology** (cytology or pathology slides from the cases of the past weeks) The aim of this activity is to evaluate knowledge in this area but also the ability to integrate different types of clinical knowledge.

The overall assessment, including the achievement of day-one competences is carried out through the evaluation of the student's logbook, a grading rubric of their clinical activity including assessment of knowledge and skills but also personal attitude, professional behaviour, pro-active involvement, oral communication skills with peers, teachers and owners, etc. The third element of the assessment is the student's performance in the presentations and seminars.

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

Different core subjects include teaching activities in the aforementioned premises: *Food Science* (2nd year), Food Technology (2nd year), *Food Inspection and Hygiene* (4th year) and *Animal and Public Health Rotation* (5th year). *Food Science* and *Food Technology* students participate in the practical activities carried out in the FTP (groups of 10 students) aimed to train them in the instrumental and sensory techniques commonly used in the food industry as well as in food preservation techniques, food quality analysis and manufacturing processes.

In *Food Hygiene and Inspection* two slaughterhouses are visited by students: Mercabarna (sheep, goats, cattle and horses, from 5am to 10am) and Moià (pigs, from 3pm to 8pm). On those visits, students join a regular shift of the veterinary services and assist the veterinary officer (who is also a contracted teacher) in his/her duties. The acquisition of skills and knowledge are assessed by means of a test.

The *Animal and Public Health Rotation* is a core subject (5th year) aimed at introducing the student to different areas of this subject. Within this rotation, students visit the fish market (five students per group) where they assist in the inspection performed by the veterinary officer (also contracted as a teacher by the university). They also assist the veterinary public

health officers of the Public Health Agency of Catalonia (two students per officer) in their duties. Under the supervision of a teacher, students perform the ante-mortem inspection of poultry before being sent to the slaughterhouse and visit corporate industry: farms, slaughterhouses, meat processing plants and distribution/commercialisation of meat.

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

All students must enrol in 30 elective ECTS to be chosen among those offered in the programme. The offer is organised in such a manner that students may focus on one of the classical areas of the veterinary profession: companion animals and equine medicine, animal health and production and food safety plus a fourth group of elective credits in biomedical research. *History of Veterinary Medicine* is also offered as a complementary subject. The students are free to choose any combination. It is worth mentioning here that the programme was initially designed in 2010 to have 4 semi-closed elective tracks. Within each track some subjects were considered compulsory and others fully elective. This tracking system was abolished before coming into effect because of a local (Catalan) regulation.

At the end of each academic year, 4th year students are requested to complete a survey indicating their preferred choices. This survey helps to manage the elective system. Occasionally and because of the available funds and resources, it has been necessary to limit the number of students enrolled in two elective classes: *Exotic and Zoo Animal Medicine* (60 students) and *Production and Health of Pigs and Rabbits* (30 students). In both cases, the selection of candidates is based on the academic merits (50% academic grades, 50% the number of ECTS credits passed).

3.1.8. Organisation, selection procedures and supervision of External Practical Training

External Practical Training (EPT) is a compulsory subject (9 ECTS credits in the 10th semester). This subject is coordinated directly by the SA vice dean assisted by a teacher appointed by the FB.

Management of the EPT is regulated in the IQAS. Accordingly, enrolment in the EPT requires completion of at least 80% of the 5th year credits. Students must spend six full-time weeks (203 hours) in external verified entities offered by the VFB on the signing of an agreement (veterinary clinics and hospitals, slaughterhouses, official veterinary services, etc.). The student may propose an entity for the EPT, in which case the SA vice-dean verifies first that the entity satisfies the requirements for the training of students and proceeds to the signing of an agreement if the requirements are fulfilled.

In September, students are informed in a meeting about the process for applying for the EPT. The allocation of students to the different external entities is carried out by the SA vice-dean, assisted by the appointed teacher. The preference indicated by the student is respected. However, if two or more students apply for the EPT in the same place when only one place is offered, preference is given to the student with more academic merit (average grades obtained to date), the other is offered the most similar entity available.

Each student is assigned two tutors: one in the external entity and one in the VFB. Students may contact the academic tutor at any time if they require assistance in the process or have any problems. Both tutors and the student must produce a report on the activities and the development of the EPT. These reports are evaluated by the SA vice-dean, assisted by the appointed teacher. It is mandatory that the student attend a tutorial session with the academic tutor for the evaluation of the EPT chosen institution and the activities performed.

The EPT grade comes from the evaluations made by the external tutor, which evaluates the student's participation in the duties assigned, professional behaviour, knowledge and skills and the ability to face everyday problems, and the academic tutor, who evaluates the student report.

3.1.9. Description of the procedures used to ascertain the achievement of each core practical/clinical activity by students

Because of the diversity of practical/clinical activities, student assessment involves several methodologies including but not limited to: written assays, true/false or multiple-choice tests, oral presentations of cases, reports, case-solving activities, etc. As explained elsewhere in this document, the programme was designed to include activities, described in the teaching guides, leading to the acquisition of day-one competence.

The VFB pays special attention to the assessment of the clinical training. For example, at the VTH there is a daily evaluation of student activities allowing the monitoring student progression. In ambulatory clinics, students must present written reports or must perform oral presentations of the cases seen. In addition, the logbook (VTH) or the reports of the extra-mural clinical activity allow close supervision not only of the activities students have undertaken but also of their communication skills.

3.1.10. Description of how and by whom the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

On the first level, the content of the curriculum is regulated at the national level by the Ministry of Education in accordance with EU regulations. Within this framework each university may develop its own programme. Usually, the university defines a set of conditions for the curriculum. Those conditions regulate some of the internal management aspects (minimum number of ECTS credits per subject, etc.). The production of the draft curriculum is delegated to a committee appointed by the FB. The draft curriculum must be approved by the FB and then passed to the CAAQ of the university. If approved, the draft is sent to the Spanish national agency for quality (ANECA) for verification. The agency may approve the draft or may sent it back to the university for modification. Once approved by the agency, the curriculum can be sent to the Ministry for registration and publication.

Once implemented, and as indicated in the IQAS of the university, the VFB must produce an annual self-evaluation report that is examined by the CAAQ of the university. In addition, the Catalan regional agency for quality (AQU) evaluates the degree every 6 years. The present curriculum was evaluated in 2016 receiving the accreditation of excellence (Ref. 2502445-38791-16, **annex 3.4.**). No major changes have been adopted since it was implemented, just minor revisions.

Internal communication is carried out by means of the FB meetings, the website and email. Stakeholders are represented in the External Advisory Committee which meets every year.

In tables 3.1.1., 3.1.2 and 3.1.3: A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work; E: non-clinical animal work; F: clinical animal work; G: tutorial and assessment; H: total

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

Academic years	A	B	C	D	E	F	G	H
1	303	42	845	123	132	6	49	1500
2	312	42	848	108	71	61	58	1500
3	334	36	929	59	36	61	45	1500
4	299	48	818	48	38	212	37	1500
5	15	35	300	0	83	302	15	750
Electives (5th year)	137	35	453	48	12	44	21	750

Table 3.1.2. Curriculum hours in EU-listed subjects taken by each student

Subjects	A	B	C	D	E	F	G	H
Basic subjects								
Medical physics	6	2	21	2	0	0	1	32
Chemistry (inorganic and organic sections)	4		7					11
Animal biology, zoology and cell biology	44	8	103	15	8		16	194
Feed plant biology and toxic plants	10	3	55	14			1	83
Biomedical statistics	14		51	10			2	77
Basic Sciences								
Anatomy, histology and embryology	93		253	41	126		15	528
Physiology	63	5	136	4		6	4	218
Biochemistry	54	8	133	15	9		5	224
General and molecular genetics	25		50	5	4		4	88
Pharmacology, pharmacy and pharmacotherapy	71	8	181	14	8		5	287
Pathology	76	1	129			4	21	231
Toxicology	21	12	82	8			2	125
Parasitology	48	2	112	10			10	182
Microbiology	81	4	190	20		5	11	311
Immunology	25	2	64	7	4		5	107
Epidemiology	50	2	116	10			12	190
Professional communication		2	1					3
Professional ethics	4	1	8					13
Animal ethology	7	2	9				1	19
Animal welfare	15	4	45				2	66
Animal nutrition	34	7	116	25			8	190
Clinical Sciences								
Obstetrics, reproduction and reproductive disorders	52	11	175	2	8	28	4	280
Diagnostic pathology	11	4	109	30	18	84	3	259
Medicine and surgery including anaesthesiology	107	4	335	5	11	142	8	612
Clinical practical training in all common domestic animal species	0	0	89	0	0	301	3	393
Preventive medicine	16		31			4	2	53
Diagnostic imaging	26	3	64	7	0	29	4	133
State veterinary services and public health	1	15	12					28
Veterinary legislation, forensic medicine and certification	5	2	13					20
Therapy in all common domestic animal species	11	20	37			1	3	72
Propaedeutics of all common domestic animal species	12		41			27	3	83
Animal Production								
Animal Production and breeding	112	11	313	42	59	0	16	553
Economics	13	10	54	9				86
Animal husbandry	20	2	44	0	26	0	2	94
Herd health management	12	0	20	0	0	0	3	35
Food safety and quality								
Inspection and control of food and feed	41	8	123	10	16	0	4	202
Food hygiene and food microbiology	29	2	56	4	4		3	98
Practical work in places for slaughtering and food processing plants	0	0	37	3	28	0	4	72
Food technology including analytical chemistry	37	20	125	12			4	198
Professional knowledge								
Professional ethics & behaviour	2	1	12	2	10	4	1	32
Veterinary legislation	5	1	16	4	11	0	1	38
Veterinary certification and report writing	2	2	13	2	11	3	1	34
Communication skills	0	4	67	0	0	4	5	80
Practice management & business	5	7	17	0	0	0	0	29
Information literacy & data management	0	4	76	2	0	0	5	87

Table 3.1.3. Curriculum hours taken as electives for each student

Subjects	A	B	C	D	E	F	G	H
Basic Sciences								
Assisted Reproduction Techniques Applied to the Management of Laboratory Animal Strains	4		7					11
Cell Cultures in Biomedical Research	10		47.5	16			1.5	75
Laboratory Animal Science	10	7	32		2		3	54
Molecular Bases and Disease Mechanisms	22		47	4			2	75
Clinical Sciences								
Advances in dermatology, neurology and ophthalmology	27		45				3	75
Advances in equine medicine and surgery	30	4	82		2	30	2	150
Advances in medicine, surgery and traumatology	52	0	96	0	0	0	2	150
Clinical practice in medicine and surgery			60	43		44	3	150
Ecopathology of Wild Animals	21	5	97.5	5		20	1.5	150
Exotic and zoo animal medicine	13	12	38			10	2	75
Laboratory Animal Science	13	2	45			11	5	76
Bovine Health and Production	10	4	27			6		47
Pig and Rabbit Health and Production	4	10	69			12		95
Poultry Health and Production	4		32		4	10		50
Small Ruminant Health and Production	4	4	23			5	2	38
Animal Production								
Assisted Reproduction Techniques Applied to the Management of Laboratory Animal Strains	8		38	9	4		5	64
Embryo Biotechnology Applied to Livestock	13	1	46		12		3	75
Fish Farming	9	12	49		5			75
Livestock Production and Ecological Agriculture	12	6	50		6		1	75
Bovine Health and Production	20	14	59	10				103
Pig and Rabbit Health and Production	5	10	40					55
Poultry Health and Production	4		16		5			25
Small Ruminant Health and Production	9		22	2	2		2	37
Food safety and quality								
Eggs and egg products	15	4	46	6			4	75
Food Microbiology	29	3	94	19			5	150
Meat and meat products	31	6	95	16			2	150
Milk and dairy products	30	5	89	18			8	150
Ready to eat food and catering	16	4	48	3			4	75
Professional knowledge								
Design of Experiments and Research Projects	15	0	39	13		0	8	75
Laboratory Animal Science	6		12				2	20
History of Veterinary Medicine	20	6	49					75

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

Subjects	Minimum duration (weeks)	Year of programme
Production animals (pre-clinical) Companion animals (pre-clinical Production animals (clinical) Companion animals (clinical) FSQ & VPH Others (specify)	6 weeks (203 hours)	5

Table 3.1.5. Clinical rotations under academic staff supervision (excluding EPT)

Types	List of clinical rotations* (Disciplines/Species)	Duration (weeks)	Year
Intramural - VTH	Surgery and Anaesthesiology (companion animals)	1 (20h/student) + neutering rotation (anaesthesiology)	3
	Medicine and Surgery of Companion Animals II (companion+exotic animals)	5 (90h/student) + neutering rotation (surgery)	4
	Equine Medicine and Surgery (horses)	1 (22h/student)	4
	Rotation at VTH (companion and exotic animals/horses)	4 (142h/student)	5
	Integrated Practice in Animal Health (necropsies, clinical diagnosis)	3 (35h/student)	4
Ambulatory clinics	Livestock Medicine and Surgery (Ruminants)	1 (8h/student)	3
	Integrated Practice in Animal Health (Poultry, rabbits, pigs, shelter medicine)	1 (25h/student)	4
	Equine Medicine and Surgery (horses)	1 (2h/student)	4
	Animal Health and Public Health Rotation (poultry)	1 (8h/student)	5
FSQ & VPH	Food Inspection and Hygiene (slaughterhouses)	3 (15h/student)	4
	Animal Health and Public Health Rotation (Fish market, food industries, Animal health programmes)	3 (28h/student)	5
Electives	Advances in equine medicine and surgery	1 (16h/Student)	5
	Clinical practice in medicine and surgery	5 (38h/student)	5
	Exotic and zoo animal medicine	1 (10h/student)	5
	Bovine Health and Production	1 (6h/student)	5
	Pig and rabbit Health and Production	1 (12h/student)	5
	Poultry Health and Production	1 (10h/student)	5
	Small Ruminant Health and Production	1 (5h/student)	5

* Annex 3.5. shows the detailed distribution of hours

3.2. COMMENTS

The integrative approach of the curriculum requires tight coordination between the teachers involved in each subject but also between different subjects in different years. This means at least one person must be exclusively responsible for issues of programming, scheduling of the different groups and to assessment monitoring. The natural evolution of the curriculum would be towards a more integrated approach, but this will require more resources, both human and financial.

As mentioned previously, to recover the planned tracking would be beneficial not only for the training of our students but also would greatly simplify planning the final year of the programme. In connection with this, it is worth mentioning that the current limitation of the curriculum to five years - (300 ECTS credits) is a constraint for increasing the weighting of

some activities (for example clinical training intra- and extramurally) and places great pressure on the students. Increasing the number of programme credits to 330 (as originally recommended by the ANECA's Advisory Committee) will be very helpful to improve the programme. However, the limited autonomy of the VFB and universities mean that a long process will be involved until that goal is reached.

3.3. SUGGESTIONS FOR IMPROVEMENT

In the process of monitoring and revision of the programme it is necessary to consider the re-introduction of the tracking. Similarly, the VFB, in coordination with other Spanish faculties, must lobby for an increase in the duration of the programme to 330 ECTS credits. This may help to increase the clinical hours in the rotations. It is also necessary to perform additional efforts to change a portion of the classical theoretical lectures for other type of lectures, including inverted lectures and more case or problem-solving seminars. Similarly, further integration should be implemented.

4. FACILITIES AND EQUIPMENT

4. FACILITIES AND EQUIPMENT

4.1. FACTUAL INFORMATION

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

The **UAB campus (260 Ha) is located 20 km far from Barcelona** centre, in an urbanized area well connected to the city by train, bus and highway but maintaining an agroforestry mosaic. The campus allocates 13 faculties and 31 Institutes of research and study (**Annex 4.1.** aerial map of the campus).

Because its location in a big university campus, interaction with the other faculties, with research centres (for example, the Animal Health Research Centre) and with the rest of the university community is easy. Moreover, the proximity to urban centres (5.5 million people in the metropolitan area of Barcelona) and to important livestock production areas, facilitates the access to off-campus facilities and the relationship with collaborating entities such as slaughterhouses, kennels, farms, etc.

The on-campus facilities used in the teaching activities of the veterinary programme include besides the main building of the VFB: a) the Veterinary Teaching Hospital, b) the Farm Services, c) the necropsy facilities and, d) the Food Technology Plant (see **Annex 4.2.** aerial map of the VFB).

- **Main building of the VFB**

The main building of the VFB is in the NW side of the UAB campus. The building was inaugurated in 1988 with a further enlargement in 2010. The whole usable area is 8,150 m^2 distributed in 4 floors (**Annex 4.3** plan of the VFB). It houses the lecture rooms and seminars, teaching and research laboratories, the dissection room, two microscopy rooms, two surgery theatres for teaching and one additional operation room for experimental surgery, four computer rooms, the library and the study rooms, the auditorium and other meeting rooms, the canteen, the reprography service, the Dean and Department offices, the Administration Office, the Academic Management Office, the student's associations as well as other services such as distilled and deionized water, gases (oxygen, nitrogen, etc.).

- **The Veterinary Teaching Hospital:** The current building of the VTH was inaugurated in 2008 in substitution of the old facilities located in the VFB main building. The new building (2,607 m^2) allocates most of the services and consultations including the surgery rooms, recovery rooms, critical care and hospitalization rooms, isolation rooms, the customer service, administration and logistic offices, etc. The main VFB building allocates part of the diagnostic imaging service and the equine unit for hospitalized horses are in an annex area (1,203 m^2). An equine isolation building (180 m^2) is built in a separated area (**annex 4.4.** plans of the VTH).

- **Farms:** The FS facilities are in a fenced area of 4 Ha adjacent to the VFB main building. There are 8 buildings allocating several species: cows, beef, sheep, goats, horses, donkeys, pigs, rabbits and poultry. In addition, several outdoors fenced areas are available for rams, horses, etc. One building is dedicated to offices and storage. Besides, there is one kennel and a second one is being built for teaching purposes exclusively. An additional building has a room for changing clothes and boots (for use of staff and students).

- **Necropsy facilities:** The necropsy facilities are in a 356 m^2 building. The ground floor houses all the spaces related to teaching and research: a dressing room with an anteroom for the material for practical lectures, two dissection rooms, two cold rooms, a photography room, a laboratory, an office, a room for live animals and two warehouses, one of them for waste. The room is equipped with a system of hoists for the transport of animals.

- **Food Technology Plant:** The Food Technology Plant has two buildings accounting for five multi-purpose rooms including highly complex equipment such as pasteurizers, sterilization and high-pressure systems or aseptic packaging machines and equipment for basic operations such as mixers, tanks, filters or mincers.

4.1.2. Description of the premises for:

- Lecturing and group work

Room	Nº	Capacity	m²	Equipment
Auditorium	1	283	248	1 desktop computer. PC/Video projector. Audio system.
Graduation hall	1	63	104	1 desktop computer. PC/Video projector. Audio system.
Lecture rooms (different capacities from 56 to 170 m²)	12	1,130 (2x160, 5x100, 2x80, 3x50)	1,292	All equipped with fixed benches, a computer with audio and video projection, whiteboard.
Rooms for seminars, workshops or group work (52 to 75 m2)	8	268 (2x28, 2x40, 2x30, 2x36)	483	Tables and chairs with different configurations or adaptable to the needs of each type of activity. Equipped with a computer, projection and audio system.
Other meeting rooms	2	72 (60+12)	111	Equipped with a computer, projection and audio system.

- Practical work

* Laboratories, computer rooms (all accessible to disabled persons and with WiFi/ethernet):

Room	Nº	Capacity	m²	Equipment
Teaching laboratories	22	400 (10 to 25 people)	1,298	Ten of them equipped with a computer, projection and audio system. Equipped with labware and equipment according to the specific needs of each discipline.
Microscopy room	2	40 (15-25 people)	118	One equipped with 16 microscopes, computer, projection and audio system. The second one equipped with 10 microscopes.
Computer rooms (69 computers)	5	138 (12-24 people+ computers for the teacher)	197	Projection and audio systems. High-speed internet.

* Non-clinical animal work (Anatomy) (accessible for reduced mobility people, internet access).

Room	Nº	Capacity	m²	Equipment
Dissection room	1	40	125	Equipped with a computer, projection and audio system. Eight stainless steel dissection tables with air extraction system (removal of formaldehyde vapours). Includes an osteology depository with complete skeletons of different species. There is a fully equipped plastination room and preservation tanks. Refrigerated room for preservation of bodies.
Lecture room (dissection)	1	35	53	Equipped with a computer, projection and audio system.

- Auxiliary premises

Premise	Nº	m²	Species	M²
Milking room	2	20+48	Cow/sheep/goat	20
Wardrobe	1	70	N.A.	18
Storage	1	350	N.A.	60
Offices	1	150	N.A.	70
Dung storage	1	200	N.A.	
Other	6	208	N.A.	150

4.1.3. Description of the premises for animal housing:

- Healthy animals: Healthy animals are housed in the facilities of the FS.

Building	Species	Nº rooms	m²	Capacity
1	Goats	1	30	40
	Cows	1	18	9
	Poultry	2	48+40	160+40
3	Pigs (up to 30 Kg)	1	32	64
	Sheep	Pen 1	150	96
	Sheep	Pen 2	90	96
4	Pigs	4	16x4	maig-20
	Equines	8	72	8
	Multispecies	3	20x3	*
7	Sheep-Goats	1	162	100
8	Sheep-Goats	1	144	90
9	Rabbit	1	49	24+ 24 cages
10	Dogs	22 x 4.3 m²	96	44
11	Calves/Cows	1	117	27/9
Fenced area	Rams/Billies	2	80	2
Fenced area	Rams/Billies	Fenced field	600	10
Fenced area	Equine	Fenced field	3,200	16
Fenced area	Bovine	Fenced field	500	4
Fenced area	Equine	Fenced field	140	8

- **Hospitalized animals**

Species	Nº	m²	Capacity
Dogs (ambulatory procedures)	1	37	14
Dogs (hospitalization)	1	53	20
Cats	1	32	13
Exotic animals	1	22	20
Horses	1	272	11

- **Isolated animals:**

Species	Nº	m²	Capacity
Dogs/cats	2	24	10
Dogs (quarantine in kennel)	4	4x4.3	4
Horses	3	146.7	3

4.1.4. Description of the premises for clinical activities, diagnostic services including necropsy, FSQ & VPH and others.

Clinical (intramural) activities

For the purpose of the following tables: Animal Production and Handling (APH); Animal Reproduction (AREP); Elective subjects (E); Equine Medicine and Surgery (EQM); Exploratory Methods (EXM); Food Hygiene and Inspection (FHI); Integrated Practice in Animal Health (IPAH); Livestock Medicine and Surgery (LMS); Medicine and Surgery of Companion Animals II (MSCAII); Pathology (PATH); Rotation at the VTH (R); Surgery & Anaesthesiology (S&A) are indicated in use (*).

Premise	Nº	Area m²	Species	Use*
Consultation rooms for the different specialties.	10	13.10-20.32	Companion animals (dogs)	S&A, MSCAII, R, E
Consultation room for cats	1	13.10	Companion animals (cats)	S&A, MSCAII, R, E
Consultation room for exotic animals	1	13.10	Exotic species	MSCAII, R, E
Critical and intensive care	1	12.0	Companion animals	MSCAII, R, E
Chemotherapy room	1	10.30	Companion animals	MSCAII, R, E
Treatments and wound dressing room	1	19.8	Companion animals	MSCAII, R, E
Surgical theatres for general soft tissue surgery, endoscopy and laparoscopy	2	21.30-26.75	Companion animals	S&A, MSCAII, R, E
Surgical theatres for general soft tissue surgery (in the main building of the VFB)	2		Companion animals	S&A, MSCAII, R, E
Surgical theatre for traumatology	1	25.35	Companion animals	S&A, MSCAII, R, E
Surgical theatre for neurology	1	26.15	Companion animals	S&A, MSCAII, R, E
Surgical theatre for ophtalmology	1	26.35	Companion animals	S&A, MSCAII, R, E
Surgical patients preparation rooms	3	61.40	Companion animals	S&A, MSCAII, R, E
Consultation rooms	2	45.60	Horses	EQMS, R, E
Anaesthesia and recovery room	2	15.50	Horses	EQMS, R, E
Surgical theatre	1	69.40	Horses	EQMS, R, E
Horse lounging area	1	108.0	Horses	EQMS, R
Exploration room	1	62	Cow/horse	EXM, LMS, E, AREP
Exploration room	1	30	Dog	EXM

Clinical extramural activities

Place	Nº	Distance from VFB (Km)	Use*
Rescue dog and cat shelters	8	10-50	IPAH
Cow farms	25	50-129	LMS
Pig farms	5	80-100	IPAH, E, R
Rabbit farms	8	15-100	IPAH, E
Poultry farms	7	105-120	IPAH, E, R
Equine unit of the police	1	20	EQMA, APH

Diagnostic services

Premise	Nº	Area m²	Species	Use
Necropsy rooms	2	1x48+ 1x24	All	PATH, IPAH, LMS, R, E
Necropsy support lab	1		All	PATH, IPAH, LMS, R, E
X-ray	2	7.5+16.11	Companion and exotic animals	EXM, MSCAII, R, E
X-ray	1	19.6	Horses	EXM, EQMS, R, E
Ultrasound	1	23.86	Companion animals	EXM, MSCAII, R, E

MRI	1	Underground	Companion animals	EXM, DI, MSCAII, R, E
CT scan and scintigraphy	1	41.1	Companion animals, Horses	EXM, MSCAII, EQMS, R, E
Haematology and Biochemistry laboratories	1	14.30	Companion animals, horses, exotic animals	MSCAII, R, E
Virology	1	35.50	Multispecies	IPAH, E
Bacteriology	2	36.26+85.54	Multispecies	IPAH, E, R
Parasitology	1	49.58	Multispecies	IPAH, E, R
Clinical immunology (livestock)	1	36.26	Multispecies	IPAH, E

FSQ & VPH (slaughterhouses, foodstuff processing units)

Premise	Nº	Distance from VFB main building	Use*
Slaughterhouse "Mercabarna"	1	20	FHI
Slaughterhouse of Moià	1	45	FHI
Fish market	1	20	R
Agrifood industry	1	103	R

4.1.5. Description of the premises for study and self-learning, catering, locker rooms, accommodation for on call students and leisure:

- **Study and self-learning** (all with Wi-Fi internet connection)

Premise	Nº	Capacity	m^2	Equipment
Individual reading and working spaces (library)	17	17	34	Individual work stations with plugs, etc.
Reading and working spaces	1	150	1,075	Distributed between the three library stories.
Rooms for group work	12	49	81	Equipped with computers.

- Other premises: catering, locker rooms, accommodation for on call students, leisure:

Premise	Nº	Capacity	m^2	Description
Cafeteria	1	292	710	The capacity within the building is 220 with further 72 places in the terrace (picnic area 300 m^2)
Multiuse rooms	2	93	186	Equipped with microwave, refrigerators, sink, etc. Wireless internet connection.
Students' wardrobe and lockers VTH	2	20	10+10	Equipped with lockers
Wardrobe and lockers VTH interns	2	28	17.8+23.9	Equipped with lockers
Wardrobe and lockers at VFB main building	4	27	37	Equipped with lockers
Student's room	1	20	23.70	Equipped with computers, microscope, wireless internet connection.
Resident and interns' rooms at VTH	2	17	34.2+14.0	Equipped with office furniture
Dorm room at VTH	3	12	53	Bunk beds
Leisure room at VTH	1	12	16.45	Tables, chairs, etc.
Leisure spaces	N.A.	N.A.	>1,000	Open gardened space surrounding the VFB main building

Offices	154	588	3,474	Office furniture. Computers. Ethernet and wireless internet connection
Research laboratories and areas	77	N.A.	2,069	Office and laboratory furniture. Computers. Ethernet and wireless internet connection
Technical areas	12	N.A.	167	Areas for maintenance and repair

Because of its location, the VFB has a wide range of on-campus leisure possibilities from the practice of sports in the Physical Activity Service to shopping in the campus centre.

On-campus accommodation is possible at *Villa Universitaria* that offers apartments for 1 to 5 people. The whole capacity of Villa Universitària is 2,193 people (http://vilauniversitaria.uab.cat).

4.1.6. Description of the vehicles used for:

- **Student transportation and ambulatory clinics**

Transportation of students to extramural facilities is done, when possible, by means of vans contracted with a professional transport company. In some cases, students must travel by their own means to the closest point that can be reached by means of public transportation where the teacher can pick them up.

- **Live animal and cadaver transportation**

The VFB owns two vans (Renault Kangoo 1.6 express and Citröen C-15) with trailer hitch and three trailers: two isotherms trailers -one for cadavers that are received and one for food- and the third for the transport of live animals. Disposal of cadavers is made by agreement with an authorized company.

4.1.7. Description of the equipment used for

Teaching purposes

Only specialised equipment which main use is teaching is mentioned. Some equipment may be used for different purposes (non-clinical, clinical, service, etc) but is only mentioned once to avoid unnecessary repetition. Other equipment which main use is research is not listed.

Equipment	Nº
Microscopes and laboratory magnifying lenses	71
Incubators	12
Laminar flow hood	7
Spectrophotometer and ELISA readers	10
Scales	20
Densitometer	1
PHmeter	9
Fume hood	7
Thermostatic baths	5
Centrifuges	5
Viscosimeter	2
Refrigerators (4-5°C)	14
Freezers – 18°C	10
Shakers	18
Vacuum pumps	6
Microtomes	1
Thermal cyclers	1
Binocular magnifying lenses	8

Pasteuriser	3
Liquid nitrogen freezing tank	1
Cheesemaking tank	3
Vertical piston press	1

Clinical services

Service	Equipment
Anaesthesiology	Multi-parameter monitoring equipment-assisted breathing equipment
Cardiology	Echocardiograph, doppler and Holter
Surgery	Endoscope, laparoscope, arthroscope, c-arm and orthopedics.
Dermatology	Video-otoscope and auricular cleaning pump
Imaging	2 X-ray equipment for companion animals and exotics. Suspended X-ray equipment, portable X-ray equipment for horses. 4 echographic equipments (companion animals and exotics, emergency, horses) CT scan equipment: 16-slice CT with contrast infused MRI equipment C-arm Gamma cameraPACS, digitalization software
Neurology	Electromyograph, neurosurgery equipment, myelo CT and myelograph
Ophthalmology	Electroretinograph, surgical laser for ophthalmology
Emergencies and critical care	Monitoring equipment, assisted breathing equipment

Other services

Service	Equipment
Distilled water	Decalcified water, distilled water, ultrapure water
Liquid nitrogen	Liquid nitrogen deposit
CO_2, N_2, He, O_2, H_2, O_2-CO_2	Centralized system of distribution of gases
Toxic waste bunker	Watertight deposits for the deposit of toxic substances and pollutants
Ice	Ice machine

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

The maintenance of the material resources allocated to teaching is under the responsibility of the VFB. Technicians available from central services of the UAB carry out general maintenance. In addition, the UAB has various contracts with maintenance companies to ensure compliance with the respective regulations including maintenance of water, gas, power, general maintenance of the building, etc.

Clinical/medical equipment as well as laboratory equipment is most often purchased with a maintenance contract. Equipment at the VTH is under the responsibility of the VTH direction who assumes the replacement of the equipment with irreparable faults.

The UAB has an annual call for renewal of teaching equipment that prioritizes equipment used in different subjects that account for a minimum of 35,000-40,000 € per year. Extraordinary purchases (expensive or singular equipment) are directed to other calls or negotiated directly with the university.

4.1.9. Description of how and by who changes in facilities, equipment and biosecurity procedures are decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The Dean's team co-ordinately with the Centre Administration, annually reviews the management of its material resources and services and make proposals for improvement. All services have established a protocol for collecting incidents and review its activity every year. Accordingly, requirements for changes are sent to the dean's office (or vice-Dean for Economy and Facilities) by services or Departments. Important changes are usually approved by the FB and communicated to the community through the webpage and/or by email. Regarding the biosecurity in the laboratories and other facilities at the VFB students and staff are informed of the biosecurity procedures that are available in the Moodle platform. For some activities or equipment with special biosecurity needs, personnel are informed by the responsible of the equipment. In chapter 5 there is a further explanation of biosecurity procedures in the farms.

In relation to the operational aspects of the VTH, the person responsible to the area affected suggests improvements to the hospital director. There is a biosecurity manual whose content is mandatory and can only be modified by the VTH biosafety committee.

4.2. COMMENTS

The facilities and equipment available for teaching are mostly adequate to this purpose. However, some of the equipment needs refurbishing or renovation. Given the economic constraints of the past years the replacement rate has not been sufficient.

4.3. SUGGESTIONS FOR IMPROVEMENT

It is imperative to obtain funding for transportation of the students to farms and external facilities. This shall be negotiated with the university Rectorate. Additional funding for the agreements with external farms and entities must be requested as well.

5. ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

5. ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

5.1. FACTUAL INFORMATION

5.1.1. Description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences.

In line with the European Directive (2010/63/UE) on the protection of animals used for scientific purposes and its transposition to the Spanish legal system (RD 53/2013), the VFB acts under **the 3 R's principle: Replacement, Reduction and Refinement**. This framework implies the use, when possible, of alternative methods (Replacement); the use of the minimum number of live animals needed to achieve the learning objectives (Reduction) and minimising animal suffering (Refinement).

Replacement is achieved by using biomodels or mannequins. This not only reduces the number of animals used but also contributes to the acquisition of clinical skills safely and focused exclusively on the procedure to be practised. Since the student knows better what to do and how to act at the time of performing these procedures on the live animal for the first time, it also contributes to animal welfare.

Regarding **reduction**, the Animal Welfare Advisor of the FS suggests the number of animals to be used based on the teaching needs as well as the number of practical sessions and the procedures allowed for the selected animals. This affects non-patient animals (sheep, goats, cows, horses and donkeys, dogs, rabbits, etc.). The Animal Welfare Advisor also plays an important role in **refinement** since he evaluates the impact of the procedures on the animal welfare and whether alternative methods could be used.

Regarding the clinical training in small animals, the high number of cases attended by the VTH ensures the teaching needs in this field. However, **the VFB is committed to provide an integral view of the clinical activities of veterinarians**; accordingly, is promoting extramural practical training as well by establishing **agreements with kennels and cat shelters**. The practical activities carried out in those entities also constitute a **service-learning** and help to strengthen the ties of the VFB with the community. Similarly, the number of equine cases recorded in the VTH is sufficient to cover the teaching needs but the VFB also established agreements with the equine unit of the local police.

For large animals the context is different than for companion animals. For proximity reasons but also because of the limitations to the transport of animals, it is uncommon that an owner or a veterinarian bring cow or a pig to the VFB (except for diagnostic necropsy); in contrast, visits to farms are easier. This is the reason why most of the clinical activities with livestock is carried out extramurally. The VFB has numerous agreements with farms where they perform clinical or pre-clinical activities under the supervision of a teacher. The number of visits performed as well as the number of cases seen ensures the acquisition of the Day-One skills in this area.

Regarding necropsies, **the VFB receives many farm animals for necropsy, while the number of necropsied pets is relatively lower in comparison.** The causes behind this are a combination of sentimental aspects (owners want to dispose by themselves of their beloved pets), sociological aspects (lack of tradition of donation) and management aspects. In contrast, for livestock, the motivation of requesting a necropsy is mainly economical. Given the good and fluent relationship with the livestock sector, there is a tradition for sending cases for diagnosis, particularly in pig and poultry.

With the aim of increasing the number of companion animals for necropsies, the VFB created in 2015 a specific **Donation Programme** of animal bodies. In the framework of this programme, the owner can donate his/her pet without any cost for him/her. The results obtained by this programme has been irregular, indicating the need to reinforce it through actions that allows to encourage the animal donation by the owners.

5.1.2. Description of the specific strategy of the Establishment in order to ensure that each student receives the relevant core clinical training before graduation, e.g. numbers of patients examined/treated by each student, balance between species, balance between clinical disciplines, balance between first opinion and referral cases,

balance between acute and chronic cases, balance between consultations (one-day clinic) and hospitalisations, balance between individual medicine and population medicine

As previously described (chapter 3.1.4.), **the progress of the students in their clinical training is progressive during the programme.** Clinical practice increases substantially in the 4th year when they have been already taught all the pre-clinical subjects and have the basic skills to immerse in clinical activities under an everyday practice environment (VTH or extramural clinical practice). **This allows the students to have a solid clinical training before starting their rotations but also allows them to integrate and participate in the VTH routine and in the professional extramural activity.** By this means, the student can take full advantage of the clinical rotations. The distribution of clinical training activities across the programme ensures an adequate core training before graduation. Moreover, extramural and pre-professional work complete this area of formation.

Regarding first opinion and referral cases, the distribution is different for the different species. **The VTH is structured in two units: the small and exotic animal unit and the equine unit.** The small and exotic animal unit receives both, first opinion (about 60% for companion animals and 85% for exotics) and referred cases. In contrast, in the equine unit all regular cases are referred but primary emergency cases can be received as well. For equines, most first opinion cases are seen extramurally, for example in the visits to equine units of the police. For livestock, almost all cases are primary both in the extramural activities or for the activities carried out in the FS of the UAB. The only exceptions to that would be animals (pigs, sheep, etc.) send alive for diagnostic purposes.

The VTH is organised in services comprising the most common medical specialties in companion animal, exotic and equine animal medicine. At present, the small and exotic animal unit of the VTH has the following services (see 5.1.4. for more details): Anaesthesiology, Dermatology, Diagnostic Imaging, Hospitalization and Intensive Care, Ethology, Exotic Animals, Internal Medicine (includes oncology), Neurology, Ophthalmology, Reproduction, Surgery and Traumatology. The equine unit offers: Anaesthesiology, Surgery, Diagnostic Imaging, Internal Medicine and Ophthalmology.

Beyond the clinical activities performed in the "classical subjects" (surgery, anaesthesiology, imaging, etc.), students carry out their clinical rotations in these different services and are exposed to a variety of cases from general consultations (first opinion) to referred cases, from simple cases to emergencies and hospitalizations. This wide range of clinical activity ensures an adequate training in the different clinical disciplines with acute and chronic cases.

The balance between consultations and hospitalization, as well as the adequate follow-up of the cases, is achieved by the scheduling of the clinical activities programmed by the VFB. **Clinical activities are scheduled so that the students must attend the different VTH services through the week.** For example, in Medicine and Surgery of Companion Animals II, one group of 5 students enrol in the Internal Medicine consultations from Monday to Friday, 10:00-14:00 A.M., whereas another group enrol the Critical Care Unit that week from 8:30 to 12:30 A.M. Similarly, for the 5th year clinical rotations in the VTH the group is split between the different services including the night shifts and weekend shifts, which are the times when emergencies are most likely to be received. This scheduling ensures that the students are exposed to the different clinical fields.

While clinical training in the VTH focuses mainly on the individual patient, population medicine requires a different approach. For both horses and small animals, training is performed extramurally in kennels, equine units, etc. Also, with the aim of providing clinical training but also to teach the importance of community service, students participate in the health programmes of feline colonies run by animal rescue associations with which the VFB has an agreement (service-learning approach). One example of this is the participation in the sterilization and health campaigns of the collaborating shelters.

Regarding food-producing animals, ambulatory clinics are provided by the associate teachers who are practising veterinarians. Since pig and poultry are the main type of food-producing animals present in our region, the number of cases in these species is higher than in other farm animals (cattle, rabbits).

5.1.3. Description of the organisation and management of the teaching farm(s) and the involvement of students in its running

As explained in chapter 1, the FS is managed by an executive commission, and its activity is supervised by a user's commission. The service has a scientific director and a technical director, who leads a work group of 9 technical specialists, one administrative support staff, one animal welfare advisor and one quality manager.

The teaching farm has a permanent intra-mural herd of animals of around 250 sheep, 60 goats, 25 rabbits and 15 horses (2 of them used exclusively for teaching purposes) and 8 donkeys. Poultry, pigs and other species are bought periodically for teaching purposes. This allows to students to follow all the production cycle in these species (mainly sheep, goats and rabbits), as well as to **participate in different activities of the FS such as assisting births, taking care of neonates, participating in milking and feeding, etc.** Practical activities in the FS are carried out in small groups (up to 9 students/group).

Managing and husbandry activities are taught starting the first year along with basic biosecurity measures. Before entering the farm, all students must compulsorily pass a test to demonstrate that they have learned and understood the basic code of conduct and the security and biosecurity rules.

To complete the training in food-producing animals, **the VFB has several agreements with external facilities for cattle, pigs, poultry and rabbits. These agreements allow students to apply the concepts covered in the FS (production systems, biosecurity and herd health) in the context of commercial farms.** The visits, under the supervision of a VFB teacher, are carried out with groups of 5 to 9 students (depending on the type of activity and on the biosecurity requirements of the farm).

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

The VTH is open 24h all year round (24/7). It is organized into services whose teams are integrated by academic clinical staff, veterinarians employed by the VTH, residents, interns and support staff. All the services are coordinated by a head of the service, who is the interlocutor with the clinical coordination, the teaching coordination and the direction of the VTH. As previously mentioned, the VTH has a Small Animal Unit, which includes exotic animals, and an Equine Unit. To ensure the coordination of teaching activities within the VTH, a **teaching coordinator** is appointed.

The opening hours of the different services of **the Small Animal Unit** are as follows:
- **Emergency and Intensive Medicine:** 24/7. Follow-up of hospitalized patients from Monday to Friday (7 am to 8 pm).
- **Anaesthesia, Diagnostic Imaging and Surgery:** Monday to Friday (8 A.M. to 8 P.M.) for scheduled visits. Emergency service 24/7.
- **Internal Medicine (includes oncology):** Monday to Friday (9 A.M. -2 P.M.; 3 P.M.-7 P.M.) for scheduled visits.
- **Dermatology:** All afternoons from Monday to Friday and mornings in Tuesday, Thursday and Friday for scheduled visits.
- **Ethology:** Tuesday morning and Thursday afternoon for scheduled visits.
- **Exotic Animals:** Monday, Tuesday and Thursday afternoon and Monday morning for scheduled visits. Emergency service 24/7
- **Neurology:** Tuesday and Thursday morning and Wednesday afternoon for scheduled visits. Emergency service 24/7.
- **Nutrition:** Appointed on demand.
- **Ophthalmology:** Monday and Wednesday morning and Monday to Thursday afternoon for scheduled visits. Emergency service 24/7.

In all cases, regular visits (no emergency cases) are only by appointment.

As previously mentioned, students perform their clinical training in the different services. Usually, first visits take between 30-60 minutes while 20-30 minutes are scheduled for the follow-up of non-complicated cases. Cases are recorded and at every shift of the personnel (i.e., at 8 A.M.., 2 P.M. and 8 P.M.), veterinarians, residents, interns and students hold a briefing on the status and action plan for each of the admitted patients.

In the case of emergencies, a veterinarian of the Internal Medicine Service performs the triage. If needed, the patient can be stabilized in the emergency room and, depending on the nature of the case, the patient is transferred to other services Between 8 P.M. and 8 A.M. the Emergency Service takes care of the cases. **Since students rotate through the different services, all clinical activities of the hospital involve students.**

In the **Equine Unit,** the opening hours of the different services are as follows:

- **Anaesthesia:** Tuesday and Thursday for scheduled procedures. Emergency service 24/7.
- **Surgery:** Tuesday and Thursday for scheduled visits. Emergency service 24/7.
- **Image Diagnostic:** Upon demand.
- **Internal Medicine:** Monday to Friday (from 8 a A.M. to 3 P.M.) for scheduled visits. Emergency service 24/7.
- **Ophthalmology**: Monday to Friday by appointment. Emergency service 24/7.

As previously mentioned, all equine cases except emergencies are referred and require previous appointment. During the day (8 A.M. – 8 P.M.), patients are visited in the different services according to the reason for admission. These services carry out their clinical activity with the students, who help in the examination, diagnosis and treatment of the patient. In the case of emergencies, both day and night, the reception of the patient is carried out by the staff on call (alternate weeks between the surgery and internal medicine services). At any time, an anaesthesiologist, an internist and a surgeon are available. Emergency and night shifts also have the participation of students in the clinical rotations.

The VTH does not have ambulatory clinics. As mentioned before, ambulatory clinics are mainly performed by associate teachers for ruminants, pigs, poultry and rabbits. Groups of 4-5 students accompany these teachers during the visits they make to the different farms in the framework of their professional activity. This allows the training of the students in the day to day clinical work and routines.

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

The main **sources** of cadavers and material of animal origin for training in anatomy and pathology are: a) VTH, b) dead or euthanized animals from the FS, c) private veterinarians that send animals or samples for diagnostic procedures to some of the diagnostic services, d) animals sent from collaborating farms, kennels, etc., d) The program for "Donation of Animal Bodies", e) Organs or carcasses from abattoirs or markets.

Cadavers used for dissection are embalmed and stored at 4ºC (short term) or at -20ºC (long-term). In addition, organs are fixed with formaldehyde or plastinated. Furthermore, there is a storage room with several bone pieces. For animals and materials of animal origin sent for diagnostic purposes processing is usually made upon reception and, if necessary, samples are stored at 4ºC until processed. The destruction of cadavers and animal samples is done by an authorized company who proceeds according to the current legislation.

5.1.6. Description of the group size for the different types of clinical training (both intra-murally and extra-murally)

Intra-murally: For clinical training involving cadavers, mannequins or teaching animals, the group size is at maximum 8-10 students. In the case of the clinical training at the VTH, the groups are of 4-5 students, except for the Diagnostic Imaging (8-10 students). **For the 5th year clinical rotation, each of the 5 students who attend a shift are divided in**

the different services resulting in one student per service (that is, 1 student attends Internal Medicine and consultations, 1 student attends the Intensive Care Unit, 1 student attends the Surgery service, etc.).

Extramurally: the group size is determined by the requirements of the external facility visited. In the case of poultry, equine and dogs, the group size is 8-10 students. For pigs, rabbits and cattle, the group is 4-5 students.

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

As previously described (chapter 3.1.4.), the hands-on involvement of students in clinical procedures begins in the first year. Subsequently, clinical contents are gradually introduced until the fourth year, so students can develop a solid base before the clinical rotation at the VTH in the 5th year.

1st year: With the aim to introduce students to the clinical environment two practical lectures are carried out: examination of reflexes in the dog (pupillary reflex, patellar reflex, etc., programmed in Structure and Function of the Nervous System) and collection of simple clinical samples in sheep (animals of the FS, course Microbiology).

2nd year: the students perform necropsies of several species, collect biological materials for analysis and perform clinical examinations in different species. This year the students start their clinical training at the VTH with one-week stay at the Diagnostic Imaging Service (companion animals and horses) with focus on radioprotection, interpretation of normal images and differentiation from abnormal images.

3rd year: the students receive an intensive clinical training in surgery and anaesthesiology. They attend preparatory sessions devoted to sedation and anaesthetic induction, catheterization, intubation, sutures, etc. This practise is done mainly using biomodels. After this, students attend the Anaesthesiology Service during one week from 9 am to 1 pm participating in the regular activities of the service. Moreover, students participate as anaesthesiologists in the neutering programmes carried out with the participation of the 4th year students, which act as surgeons under the supervision of a teacher. Students also participate in the bovine ambulatory clinics (Livestock Medicine and Surgery) being involved in the clinical evaluation of the animals/herd, collection of biological samples, pregnancy and reproductive disorder diagnosis, herd health programs, biosecurity programs, assessment of welfare, etc.

4th year: Clinical training is mainly carried out in three subjects: Companion Animals Medicine and Surgery II, Equine Medicine and Surgery and Integrated Practice in Animal Health. Students attend the different VTH services (Internal Medicine, Intensive Care Unit, Surgery, Diagnostic Image, Equine Medicine, Equine Surgery) where they collaborate in the different activities including anamnesis and examination of patients, differential diagnosis and therapeutic approaches, sample collection and analysis, preparation and administration of medication, wound care, preparation of patients for surgery, etc. In addition, they are involved in necropsies and diagnostic pathology, sample collection and analysis, report writing and communication, etc.

5th year: Students attend the different VTH services within the regular operation schedule (24/7). The hands-on training activities include among others: anamnesis and clinical examination, sample collection, preparation and administration of drugs and other treatments, diagnostic or therapeutic procedures (e.g., endoscopy, skin biopsy, X-ray, echography, etc), communication with the owners, etc. Students rotating in the emergency and intensive medicine service are in charge - supervised by the senior staff- of administering treatments and taking care of the hospitalized animals, becoming thus familiar with this field of work. In the **operation theatre** students participate in the induction and maintenance of anaesthesia, monitoring, preparation of the surgical materials and of the patient, the surgical procedure itself including suture of surgical wounds, bandaging, etc. In **ambulatory clinics**, they participate in the routine of the official veterinarians in health and welfare, reporting, etc.

It is important to emphasize that all clinical practice is carried out under the direct supervision of academic staff. Veterinary officers of the Agriculture Department act as senior supervisors of students in the activities that involve health or welfare inspections (there is a specific agreement with the Agriculture Department).

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

Several subjects of the syllabus include in their methodological approaches the **problem-based learning or the case-based learning and case-discussion**. These methodologies promote the search of information, the collection and analysis of data as well as the integration of different knowledges to draw adequate conclusions using critical thinking. This is the basis of evidence-based medicine. Although used in several courses, these approaches are more common in the clinical training of students and are combined with other key skills such as report writing or oral communication. Some examples of these activities are described below:

Clinical training at the VTH:

▪ Anaesthesiology and Surgery services: Before entering the operating room, students must discuss the case with the teacher and propose the adequate anaesthetic protocol and the surgical approach (simple cases). Similarly, at the end of the operation, the incidents (if any) and all the elements relevant to the follow-up and the prognosis of the case are discussed.

▪ Intensive Care Unit and Equine Internal Medicine: the students perform the follow-up of the patients and discuss the cases with the teacher.

▪ Internal Medicine and specialty consultations, Diagnostic Imaging: After each round of consultations or in the interval between scheduled visits, the students analyse and discuss with the teacher the differential diagnosis, prognosis and possible therapeutic approaches of each case.

In addition, during the clinical rotations at the VTH, students keep a logbook of the cases attended, including at least a brief description of the diagnosis, procedures performed, and treatments applied. At the end of the rotation, students must select a case and do an oral presentation open to discussion with classmates and teachers. Besides, students may attend other complementary activities such as the training seminars organized daily for interns (from 8 a.m. to 9 a.m.), journal clubs sessions organised by residents, etc.

Ambulatory clinics:

Similarly, in the ambulatory clinics (kennels, equines or livestock) students discuss the cases with the teacher. Afterwards, students must write a report to be discussed and assessed. In some subjects, students must perform an oral public presentation open to discussion with their classmates and the teacher.

Diagnostic pathology-necropsy cases:

During the development of the necropsy students discuss the case with the teacher and select, under the supervision of the teacher, samples for further pathological, microbiological or other analyses. Samples for microbiological analysis are also followed in other practical lectures in Integrated Practice in Animal Health. The students attend specific sessions for discussion and they must present oral and written reports indicating the differential diagnosis, the interpretation of the analytical and the final diagnosis.

5.1.9. Description of the patient record system and how it is used to efficiently support the teaching, research, and service programmes of the Establishment.

Recording at the VTH:

Since 1998, the VTH used a software for management of veterinary hospitals and consultations (QVET). That software satisfied the management needs but, unfortunately, did not fully meet the need of a modern VTH in a university context.

Recently, a new version of the software (QVET Cloud) has been implemented in a testing phase. With this version all the clinical information will be easily accessible fully avoiding paperwork. The new software will in turn fulfil the new regulations of the data protection laws. This software is expected to be fully operative by the end of 2018. Until that moment, customer, patient and billing data will be electronically registered, but a copy of the medical histories will still be kept in paper and archived. Both students and veterinarians who so require, have access to medical records whenever they need, either for teaching or research. The administration staff is at their service to provide all the necessary information, ensuring the privacy of customers.

Regarding diagnostic imaging, the used software (PACS) allows storing, consultation and edition of the recorded information in the server (images from X-ray, ultrasound, magnetic MRI, CT scan, c-arm and gamma camera). Authorized users may access remotely to the system. Students or staff requiring a given image may access an electronic copy of it under the supervision of the teaching staff. Most surgeries are recorded so that students can request the videos or access images if necessary to prepare their reports or presentations.

Recording of extra-mural cases

Students have the present a written clinical report of the cases seen during their visits, that are registered by the academic staff in paper-format or electronically (through the Moodle platform).

5.1.10. Description of the procedures developed to ensure the welfare of animals used for educational and research activities

UAB has an Ethics in Animal Experimentation Committee and an Animal Welfare Advisor (a veterinarian, member of the Ethics Committee) assigned to the FS. In the case of the procedures that can be considered a normal veterinary act (for example, physical examination) on a healthy animal, the Animal Welfare Advisor evaluates the procedure, how often it will be performed and the potential risks for the animal among other elements. The evaluation results in a proposal with indication of admitted frequency, resting periods, etc. This decision is binding.

For other types of procedures (for example, procedures performed in rodents) RD 53/2013 (transposition of the Directive 2010/63/EU on the Protection of Animals used for Scientific Purposes) applies. Accordingly, the procedure must be reported in written to the UAB Ethics Committee beforehand for approval. Then, the procedure is submitted to the corresponding office of the Catalan Government for final approval.

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

The CAAQ is the first instance responsible for the evaluation and approval of the activities carried out in the different subjects as well as for assessing the development of the programme. Changes in the activities may be proposed by the CAAQ itself or may be proposed to the CAAQ by the DC, a SC or by any member of the CAAQ. Decisions of the CAAQ are communicated through the minutes of the CAAQ and by email.

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

Cadavers				
Species	17-18	16-17	15-16	Mean
Cattle	2	2	2	2
Small ruminants	2	2	2	2
Pigs	0	0	2	0.66
Companion animals	28	30	32	30
Equine	8	8	8	8
Poultry & rabbits	9	9	9	9

Exotic pets	0	0	0	0
Others (specify) Wild animals	4	4	4	4

Species	Plastinated and fixed materials*	Bones*
Cattle	26	88
Small ruminants	28	80
Pigs	28	78
Companion animals	28	90
Equine	26	104
Poultry & rabbits	0	13
Exotic pets	0	0
Others (specify)	0	0

*Same figures for the 3-year period

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

Species	17-18	16-17	15-16	Mean
Cattle	312	312	312	312
Small ruminants	270	270	270	270
Pigs	350	350	350	350
Companion animals	8	8	8	8
Equine	32	32	32	32
Poultry & rabbits	214	214	214	214
Exotic pets	0	0	0	0
Others (specify) Rodents	120	120	120	120
Others (specify) Fish	70	70	70	70

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

Species	17-18	16-17	15-16	Mean
Cattle	0	0	0	0
Small ruminants	0	0	0	0
Pigs	0	0	0	0
Companion animals	20,046	18,628	16,229	18,301
Equine	505	381	355	414
Poultry & rabbits	0	0	0	0
Exotic pets	1307	1,002	1,027	1,112
Others (specify)				

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

Species	17-18	16-17	15-16	Mean
Cattle	124	47	28	66
Small ruminants	1	11	10	7
Pigs*/**	18,000/ 735	19,800 / 755	29,400 / 1,525	22,400
Companion animals	525	579	436	513
Equine	37	21	0	19
Poultry & rabbits*	176,000	210,000	105,000	163,667
Exotic pets	0	0	0	0
Others (specify)				

*These data correspond to the mean census of sows, poultry or rabbits in the visited farms.

**These data correspond to the number of individual pig cases seen by the students.

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

Species	17-18	16-17	15-16	Mean
Cattle	100	100	100	100
Small ruminants	100	100	100	100
Pigs	100	100	100	100
Companion animals	61.6	57.5	60.8	60.0
Equine	6.8	5.2	0	4
Poultry and rabbits	100	100	100	100
Exotic pets	81.1	84.5	84.7	83.4

Table 5.1.6. Cadavers used in necropsy

Species	2017	2016	2015	Mean
Cattle	2	6	2	3.3
Small ruminants	51	80	61	64.0
Pigs	340	166	112	206.0
Companion animals	162	163	162	162.3
Equine	25	17	22	21.3
Poultry & rabbits	259	221	224	234.7
Exotic pets and rodents	53	37	55	48.3
Others (wild animals)	20	23	13	18.7

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

Species	17-18	16-17	15-16	Mean
Cattle	73	58	21	50.7
Small ruminants	56	56	56	56.0
Pigs	58	61	77	65.3
Poultry	42	45	38	41.7
Rabbits	64	42	42	49.3
Companion animals	28	28	28	28.0
Equine	21	21	7	16.3

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

Species	17-18	16-17	15-16	Mean
Ruminant's slaughterhouses	24	26	28	26
Pig's slaughterhouses	24	26	28	26
Poultry slaughterhouses	0	0	0	0
Related premises *	3	3	3	3
Others - Fish market	25	24	27	25

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

5.2. COMMENTS

The location of the VFB, close to a big urban area, provides very good opportunities but also has some drawbacks. The opportunities are related with the high case load of the VTH that allows a good exposure of students to a diversity of cases (from consultations to emergencies and hospitalizations). The VTH has become a reference hospital in the metropolitan area of Barcelona. Regarding the drawbacks, the location in an urban metropolitan area makes difficult to receive cases in food-production animals and therefore, most of the clinical activities for livestock must be done extramurally with the problem of the transportation of students.

Because of the location, and particularly for equines, in the past some conflicts arose between the VTH and the private practitioners. Those conflicts were understandable since the number of horses in the area is not that high and a veterinary hospital could have drained the cases received by private practitioners. To solve this issue, the Equine Unit accepts only referred cases (although it attends emergency cases if they arrive). In the case of the Small Animal Unit both primary and secondary cases are seen.

The VFB is committed to increase the extramural clinical activities, particularly for livestock and population medicine. However, current funding is not enough to increase these activities and is particularly limiting for the transportation of students to farms and for the compensation of collaborating farms and shelters. Regarding necropsies, the recent increase in the funding for this activity is expected to help to increase the activity in this area, particularly for small animals.

5.3. SUGGESTIONS FOR IMPROVEMENT

The VFB must deepen in three Rs for the pre-clinical subjects, reducing the use of animals outside the clinical or farm environment. More biomodels are needed. Besides this, a more proactive approach to encourage donation of bodies (particularly for dogs and cats at the VTH) must be undertaken. Actions for promoting more activities based on critical thinking and problem-solving activities must be undertaken. Search of additional funding for extramural activities is needed.

6. LEARNING RESOURCES

6. LEARNING RESOURCES

6.1 FACTUAL INFORMATION

6.1.1. Description of the main library of the Establishment

In the UAB system, all faculty libraries belong to the UAB Library Service (LS). The LS organizes and coordinates the activity of each faculty library and provides for a substantial part of their funding. The LS holds the ISO 9001 2015 certification.

Staff and qualification	1 Director, 1 full-time librarian (Degree in Documentation); 2 full-time librarians for management and client support (degree in biblioteconomy), 3 full-time administrative staff (high school); 1 assistant administrative (primary studies)
Opening hours and days	Monday to Friday: 8:30-20:30.
Annual budget	7,800 € (only decentralised budget, without salaries)
Facilities	1,300 m², 380 m book shelves, 11 rooms for work group (capacities 2-7 people), 20 individual work cubicles, 16 computerized reading points, 3 e-readers, 144 electrified reading points, 264 reading points, 1 small lecture room.
Equipment	32 desktop computers, 8 laptop computers, 12 electric charge points, "Sierra" - Innovative-management software (UAB network system), 1 "FTF" -Ebsco-electronic resource management system (UAB network system), open repository "ddd.uab.cat". Wireless internet connection.
Number of veterinary books and periodicals	36,000 books, research works, etc., 600 journals. Access to all the resources available in the Catalan University Library System.
Number of veterinary ebooks and e-periodicals:	2,000 e-books and 1,700 e-journals.
Number of other e-books and e-periodicals:	45,000 e-books and 27,000 e-periodicals.

6.1.2. Description of the subsidiary libraries

There are no subsidiary libraries.

6.1.3. Description of the IT facilities and of the e-learning platform

Students have access to 5 computer rooms in the main building of the VFB (69 computers) plus 16 additional free access computers in the library. The main building of the VFB has full wireless coverage. Scanner and printing services are also available to students.

Regarding the information and resource platforms available to students and staff, the following are worth mentioning:

- **Moodle virtual classrooms**: The UAB "Virtual Campus" uses a Moodle platform providing a virtual learning environment. The Moodle virtual classroom is customizable and may contain from simple text documents to lectures, presentations, videos or any other potential learning resource. It is also used as a channel of communication between teachers and students, for example for making public announcements. The Information Systems Planning Area gives logistic and training support to the MOODLE platform.
- **Electronic information sources.** The VFB Library in collaboration with the LS gives access to staff and students to platforms such as Web of Science, Scopus, Sciencedirect, Wiley, Springer, Taylor & Francis, Wageningen Academic Publishers, among others. Specialized resources such as VetMed (CABI), Knovel-Food and Documentavet are also accessible.

Library staff carries out several courses directed to students: "Come to Know the Library" (1st course students), "Elaboration of the Degree´s Final Project", "Final Master Project", "Information resources in ...", "Institutional Mendeley (bibliographic manager)","Scopus", "Web of Science", etc.

6.1.4. Description of the available electronic information and e-learning courses, and their role in supporting student learning and teaching in the core curriculum

Most of the teaching materials used in lectures are available to students through the **Moodle platform**. This platform and the UAB portal contain videos, tutorials and websites of academic interest. Moodle is the main tool for dissemination of teaching materials within the VFB. The library service offers several courses (see 6.1.3.) for the students. Access to services such as MedVet and others is provided, and tutorials are available.

6.1.5. Description of the accessibility for staff and students to electronic learning resources both on and off campus

The VFB has a **full Wi-Fi internet connection** allowing access to UAB intranet and to the internet. Within the UAB campus, students have **access to electronic resources through the EDUROAM network** (Education Roaming) using any electronic device (smartphone, tablet, etc.). Off-campus access is granted through the *Access to Electronic Resources* using the UAB personal identification number and the associated password through the web portal http://sia.uab.cat or through a virtual private network (https://xpv.uab.cat).

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

Students are taught how to access and use learning resources by means of different training actions. First course students receive upon arrival a brief course entitled "Come to know the Library" where they are taught how to use the basic information sources. For more advanced users (fourth/fifth year students) sessions on the use of bibliographic resources (Mendeley, Pubmed, etc.) are held. Sessions targeted to the use of specialised information resources are held for postgraduate students. Many of the presentations used in those courses are available in the Moodle classrooms and in the digital document institutional repository.

6.1.7. Description of how and by whom the learning resources provided by the Establishment are decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The management of learning resources is carried out at several levels. At the **most basic level**, the teachers responsible of any given subject identify and propose needs for learning resources. At a **second level**, the semester meetings that are held between the DC, the responsible for each teaching subject and the representatives of the students may identify general or specific needs regarding the use of learning resources If the identified **problem or need is of enough importance, it can be redirected to the CAAQ or to the ES vice-dean**, depending on the nature of the problem. If necessary, the problem may be elevated to the **FB**. Each of these bodies may act at its own initiative. In the case of the **Library**, there is a **Commission of Users** who identifies the needs and problems and formulate proposals to either the VFB or to the LS. The commission performs the monitoring of the usefulness of the learning resources.

In addition, the VFB has a **Computer Science and Multimedia Service** which is responsible for the technical aspects related to the hardware and infrastructure needed for e-learning resources. Similarly, to the Library, there is a Commission of Users.

The Library uses part of its own decentralised budget to the acquisition of the necessary documents by proposal of the VFB or the Departments. Specialised books or ebooks are usually bought with a shared contribution of the departments and the library. For subscriptions to journals and continuing electronic resources the LS manages purchases for the whole university. The **LS**, as a part of the **Consortium of University Libraries of Catalonia,** participates as well in the acquisition of a basic digital library for Catalan universities.

The communication of the newly purchased electronic resources is carried out through news bulletins on the website of the library, by email or through the social networks such as Facebook or Twitter. A section of the Library in the Moodle area of the VFB allows to disseminate digital news annually. The User Commission of the Library assesses an annual

report of activity, including the statistics of use of the different resources. These data are used for producing proposals or for allocating funds.

6.2 COMMENTS

Nowadays, there is an ever-increasing production of learning and information resources. The VFB is committed to obtain the newest tools to ensure the students and staff access to the state-of-the-art information. Also, the VFB is committed to provide accurate and timely information for the training of students, not only in the specific subjects of the veterinary curriculum but in all the aspects related to campus' life. Use of social networks is encouraged for the dissemination of information related to the daily organisation of faculty's life.

The access to electronic resources of quality requires adequate funding. In addition, the cost of maintenance of the electronic resources requires specialised personnel to keep updated the different platforms.

6.3 SUGGESTIONS FOR IMPROVEMENT

The increase in the use of mobile devices makes necessary to increase the bandwidth of the wireless connectivity in the VFB. There is an evident need for additional funding to produce learning resources such as videos or interactive models for pre-clinical or propaedeutic activities. More funds are needed as well for accessing pay-per-use repositories of pictures, videos and other e-materials. Decentralised funding of the library should be increased.

7. STUDENT ADMISSION, PROGRESSION AND WELFARE

7. STUDENT ADMISSION, PROGRESSION AND WELFARE

7.1. FACTUAL INFORMATION

7.1.1. Description of how the educational programme proposed by the Establishment is advertised to prospective students

At present the number of students applying at the VFB is about 900/year (first and second options) resulting in a ratio of 1 admitted student every 7.8 applications.

Actions aimed to the advertisement of the educational programme of the Establishment are carried out at three different levels: on-campus, off-campus and on-line.

The **on-campus activities** are intended to let the future students and families know what we do in the real daily environment. Two main activities are carried out every year:

a) The **Open-Door Days**. The aim of this activity is to inform the prospective students about the Veterinary Degree programme and the daily life in the VFB through visits of the facilities and talks. On average, more than 600 people enrol in this activity.
b) The **Family Day.** This activity focuses on prospective students and their families, emphasizing the services offered by the UAB to the students. The average attendance is 240 people.

Besides this, two University programs are targeted to high school students:

a) **Argó Program**. Students integrate in a research group for a training period.
b) **Campus Itaca**. Orientation activity focused on introducing the university life.

Off-campus activities include **specific activities in high schools.** Usually, these activities are organized as talks or seminars where a person from the academic staff (or a group of them) of the VFB explains the competences and the professional perspectives of veterinarians as well as the organisation of the veterinary curriculum. In addition, the VFB is present in the yearly **"Saló de l'Ensenyament"** (a fair for disseminating university offer to prospective students).

On-line dissemination (http://www.uab.cat/veterinaria/) focuses on making available to a wide audience the offer of undergraduate and postgraduate studies of the VFB.

7.1.2. Description of the admission procedures for standard students

In Spain, access to the university is universal meaning that all students fulfilling the requirements for access are granted access. However, admission to a given degree is limited by a *numerus clausus* policy. In practical terms that means that in the preliminary process of application to the university a student must indicate her/his preferences (for example: 1st Veterinary Degree in Barcelona, 2nd Medicine in Barcelona, etc.).

The RD 412/2014 regulates the access to Spanish public universities. This decree establishes **two routes for regular admission**:

- **Baccalaureate students**: Students coming from high schools must take a University Admission Test. This exam includes a mandatory general examination phase (maximum 10 points) and an optional specific phase, which includes subjects related to the different areas of knowledge (up to 4 additional points). The final qualification results from the sum of the average baccalaureate qualification (60%) and the qualification obtained in the exam (40%).

- **Students of Formative Cycles:** In the Spanish education system, there is a group of studies of technical nature (called Formative Cycles) that enable access to the university. For these students, the final qualification that gives access to the university results from the average grade obtained in those studies (max. 10 points). These students may also perform the specific phase of the Access Test.

In the last years, the mark needed to be admitted at the VFB ranged from 11.5 to 11.8. Sixty-four percent of the students were admitted via baccalaureate and 14% via formative cycles.

The regulations promote the enrolment of students belonging to certain groups as follows:

- **People older than 25**: There is a reserve of 3% of the available places for this group. Selection is made based on the qualification obtained in a specific admission exam. In the last three academic years 15 students were admitted this way.
- **People older than 45**: There is a reserve of 1% for this group. Selection is based on the qualification obtained in a specific admission exam plus a personal interview. In the last three years, only one person was admitted this way.
- **People older than 40 with experience in a field related to the studies** (without holding a previous university degree). In this case, a special permit (acceptance) must be issued by the centre where the student applies. In the last three academic years, nobody requested the admission this way.
- **Persons with an officially recognized degree of disability (>33%) or with special needs**: There is a reserve of 5% of the available places for this group. The selection is based on the marks obtained in the Admission Test but then they only compete with other people entering this way. In the last three years, 10 students were admitted this way.
- **Elite athletes**: There is a reserve of 3% for this group: Students applying this way must pass the Access Test but only compete between them for the available places. In the last three years, seven students were admitted this way.
- **Second university degree**: 3% of the available seats are reserved for this group. Selection is made based on the average qualification obtained in the first degree. In the last three academic years, 5 students were admitted this way.
- **Students coming from other universities (transfers)**: In this case, a minimum of 30 ECTS passed in the studies of origin is required. In the last three years, 11 students were admitted this way.

All the information on the admission procedures as well as the minimum qualification required to be admitted is public through the website of the Catalan Government: https://accesuniversitat.gencat.cat/accesuniversitat/login. Those who disagree with the mark obtained may request a verification or a new correction to the corresponding office of the Catalan Government.

7.1.3. Description of the admission procedures for full fee students

In Spain, the enrolment fees for official degrees are the same for all students, whether national or international and a figure such as a full fee student does not exist.

7.1.4. Description of how the Establishment adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

The **buildings of the VFB are designed to accommodate up to 140-150 students of the Veterinary Degree per year. At present, the number of admitted students is 115/year.** This allows working in a comfortable environment. UAB has made a constant effort to gradually improve its facilities (classrooms, hospital, farms, library, etc.) to face the new teaching and training needs of the veterinary degree students. The construction of a new section of the VFB some years ago allowed more room for lectures, seminars and laboratories. At present, it is not expected a significant change in the number of admitted.

Safety is first for the VFB. Accordingly, the VFB implements measures to ensure the biosecurity. The most easy and adequate measure to ensure biosecurity and welfare is to promote learning in small groups, particularly when animals must be handled or when animal samples or use of potentially hazardous materials of any type is foreseen.

7.1.5. Description of:

a) **Progression criteria and procedures for all students**: According to the Academic Regulations of the UAB (in accordance with RD 1393/2007 and RD 861/2010) a newly admitted student may only progress to the second year if he/she passes at least 12 credits of the first-year subjects. To be allowed to enrol in any third-year subject, the student must pass at least 60 credits of the first and second-year subjects. To enrol in fourth-year subjects, it is necessary to have passed at least all the first-year subjects and no less than 120 credits of the first three courses. To access the 5th year clinical rotation at the VTH a student must pass previously no less than 210 ECTS. A similar restriction applies to enrol the Degree Final Project. Additional regulations indicate that students must enrol all failed compulsory subjects before taking any new subject. This restriction does not apply to elective subjects. If a student fails an elective he/she is allowed choose another one.

Students have three opportunities to pass a subject although if he/she fails for the third time it is still possible to request an additional (extraordinary) opportunity. If failed again, the student is expelled and cannot enrol anymore. It is possible to request the cancellation of an enrolment, within the terms that are set in the academic-administrative calendar. In addition, in special cases it is possible to apply for what is called "passed by compensation". This is only applied when a student has failed three consecutive times the same subject (of <12 ECTS) with a qualification greater than 3.5/10. After the approval of the dean, the failed course can be considered passed by compensation with the other passed subjects. The academic record of the student indicates this.

b) **The remediation and support for students who do not perform adequately**: Each student is assigned an Academic Mentor when enrolled for the first time. The mentor is a member of the academic staff who follows the student throughout all his/her years at the VFB. Most often, the first notice of a student having problems in their academic performance is through the Academic Mentor.

In addition, UAB has a Psycho-educational Counselling (*Unitat d'Atenció Psicopedagògica*, UAP), which supports the continuous learning processes of UAB students. From the perspective of prevention and intervention in the educational and social fields, the UAP offers a set of activities providing the students with tools for their learning process. Those students with learning problems can contact the UAP so that, free of charge, they can support them.

c) **The rate and main causes of attrition**: **The proportion of dropouts is about 11% per cohort of students. Of this 11%, two thirds occur during the first year, one sixth in the second year and the other sixth is distributed among other years.** This figure is in line with the academic performance of the VFB students (% of credits exceeded in relation to those enrolled), which is around 90% in the last 5 years.

The reasons for abandonment are very diverse and complex; however, exact and reliable statistics are not available. In general, the most commonly cited reasons (from those cases where this information is available) are: economic problems in the household, personal problems such as death or disease of a close relative or health problems of the student. In some cases, the stated reason is that the program does not coincide with the student's expectations. This is relatively common for students who enrolled in the Veterinary Degree as a second option after (human) Medicine. **Despite the efforts made with programs of attention to diversity (Program PIUNE), pedagogical support (UAP), and the individual mentoring of students, the abandonment figures are fairly constant**.

d) **Exclusion and appeal procedures**: In accordance with RD 1393/2007, UAB issued a regulation regarding the admission, assessment and permanence conditions. Newly admitted students must pass no less than 30 credits in the two first years to be in good standing and 60 ECTS to pass to the 3rd year. Full-time undergraduate students must complete the degree in n+3 years, where n is the duration of the studies as described in the program. In the case of the veterinary degree, this value would be 8 years. For part-time students the allowed duration is 2n+3. Students that do not fulfil this requirement are not allowed to continue.

Any complaint or dispute resulting from the application of the abovementioned regulations is resolved in the first instance by the dean. The dean's resolution can be appealed before to the rector, who after consulting the Social

Council of the UAB makes a final decision. Rector's decision exhausts the administrative process. Further appeals can be made to the courts.

For appealing the results of any type of assessment, the students can request an ordinary review which is done by the teacher of the subject. If still in disagreement an extraordinary review can be requested. In this case, the dean of the faculty will appoint a review commission to decide. The commission oversees all the assessment process and must include at least one academic specialist in the subject. A final appeal can be made to the Social Council. Moreover, a formal process for doing any complaint is compiled in the IQAS (http://www.uab.cat/doc/PS5_Gestio_de_queixes_i_suggeriments_Veterinaria). The objective of this process is to establish and organize complaints, suggestions and congratulations and to be able to do a follow-up until the final resolution, identifying the actions executed and the result

e) **The advertisement to students and transparency of these criteria/procedures**:

All the procedures described above are defined in the "Academic Regulations of the UAB" which are accessible from the Student's Guide, on the VFB website (http://www.uab.cat/web/estudiar/graus/graus/guia-de-l-estudiant-1345722235545.html). This Guide is presented each year to all first-year students in the Welcome Seminar.

7.1.6. Description of the services available for students

The Autonomous University of Barcelona offers a variety of services to students that can be found on the university website, Life on Campus section (http://www.uab.cat/web/vivir-el- campus / services-1345666366651.html)

The **Student Information Offices** are key elements in university's life. There is one general information office called **The Information Point** (INFO UAB) and an **International Welcome Point** (IWP) for foreign students. Both are located at the Civic Square. INFO UAB offers a personalized guidance in any field related to academic life such as university services, scholarships, transportation, etc. Its opening hours are 9:30 a.m. to 07:00 p.m. from Monday to Friday. The IWP offers information to students, teaching and support staff from other countries, particularly in issues related to visas and migratory status, accommodation, language courses, etc. This office is open from 9:30 a.m. to 7:00 p.m. (from 9:00 a.m. to 2:00 p.m. in August).

In addition, the UAB provides a range of services for students:

- **The student Building** (ETC): A meeting place for students engaged in cultural activities
- **Student Advisory Programs** (PAE): Mentoring aimed at campus life and everything essential for their integration in the university.
- **Psycho-educational counselling Unit** (UAP): See 7.1.5.
- **Health Care Service**: Supports the community in health promotion, assistance and health research. It is integrated into the organizational structure of the Prevention and Assistance Area.
- **Professional and Job Counselling Office**: Supports the student in the search for opportunities in extracurricular practice and other job-related opportunities.

At the establishment level, students have several organizations and entities that facilitate their development and stay at the centre throughout their years of study:

- **The Council of Veterinary Students** (CEV). This is the main representative body for debate, coordination and exchange of information of the VFB students. The functions of the CEV are the coordination of the representation of students in the governing bodies of the VFB, and organizing activities aimed at students.
- **The Assembly Veterinary Students** (AVS). An alternative association like CEV.
- **Student associations.** A diverse range of social, sports and political organisations (http://www.uab.cat/web/coneix-la-facultat-1345711131722.html).

The UAB also provides web-based information services. Among others, it is worth mentioning: a) The **UAB website:** includes all the information of interest to the community, b) **The student portal:** contains university news, the most common academic procedures in the university career, the organization of the university and the services available to

students and, c) the **Student's intranet:** accessible through the student portal and contains a diversity of sections from scholarships to job search.

The UAB and the VFB are committed to offer the newly admitted students support and information in several areas of the university's life. Among the activities that are carried out, the **welcome sessions** are the most relevant. A first one is carried out at the end of July and is aimed to the guidance of students all throughout the enrolment process. This session is organized by the Dean's Office and the EA. At the beginning of the academic year a second series of welcome sessions are organized devoted to the practical aspects of life in the VFB and are intended to introduce the services: libraries, study rooms, university services, etc.

7.1.7. Prospected number of new students admitted by the Establishment for the next 3 academic years

It is expected to maintain the number of students admitted every new course around 115.

7.1.8. Description of how (procedures) and by who (description of the committee structure) the admission procedures, the admission criteria, the number of admitted students and the services to students are decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

As previously mentioned (7.1.2.), access to the veterinary degree at VFB is regulated within the framework of the RD 1892/2008 and subsequent modifications. This process is directed and controlled by the University Access Office of the Catalan Government and is centralized, without the intervention of the UAB or the VFB. All information related to this process is public through a website (http://universitats.gencat.cat/en/inici/index.html). In that website, students may access to all available information including their marks in the admission tests, the mark required for admission, etc. The VFB website also contains information on this subject.

Table 7.1.1. Number of new veterinary students admitted by the Establishment

Type of students	17-18	16-17	15-16	Mean
Standard students	120	121	143	**128.0**
Full fee students*	N.A.	N.A.	N.A.	N.A.
Total	**120**	**121**	**143**	**128**

* No full fee students exist in the Spanish university system. N.A. Does not apply

Table 7.1.2. Number of veterinary undergraduate students registered at the Establishment

Year of programme	17-18	16-17	15-16	Mean
First year	118	112	121	117.0
Second year	112	125	113	116.7
Third year	125	120	129	124.7
Fourth year	112	130	121	121.0
Fifth year	123	128	130	127.0
Total	**590**	**615**	**614**	**606.3**

Table 7.1.3. Number of veterinary students graduating annually

Type of students	17-18	16-17	15-16	Mean
Standard students	121	128	133	**127.3**
Full fee students	N.A.	N.A.	N.A.	N.A.
Total	**121**	**128**	**133**	**127.3**

*N.A. Does not apply

Table 7.1.4. Average duration of veterinary studies

Duration*	2017	2016	2015	Mean
+ 0	75.8	84.8	96.3	**85.6**
+ 1 year	17.6	15.2	3.7	**12.2**
+ 2 years or more	6.6	0	0	**2.2**
Average (years)	5.31	5.15	5.04	**5.17**

*The duration of the programme is 5 years

Table 7.1.5. Number of postgraduate students registered at the Establishment

Programme	17-18	16-17	15-16	Mean
Internships	24	24	24	24
Residents	28	29	28	28
PhD students	166	166	132	155
Official Master's	56	32	21	36
Non-official Master's	55	59	79	64
Diplomas	62	139	82	94
Total	**365**	**449**	**366**	**393,3**

7.2. COMMENTS

As in other health related disciplines (Medicine, Nursing, etc.), most of the students are women (81% of the new admissions in 2017).

At present, the UAB and the VFB have a pro-active policy in the welcome and mentoring of newly admitted students. However, after the first year, most of the mechanisms of mentoring and monitoring are passive and rely on the student requesting advice or counselling. The UAB has developed a Tutorial Action Plan that still have many areas to be developed. Be although beyond the power of the VFB, support to students with disabilities should be increased.

7.3. SUGGESTIONS FOR IMPROVEMENT

To promote the implementation and development of the mechanisms foreseen in the Tutorial Action Plan directed to the active mentoring of 2nd to 5th-year students.

8. TEACHING AND LEARNING: QUALITY AND EVALUATION

8. TEACHING AND LEARNING: QUALITY AND EVALUATION

8.1. FACTUAL INFORMATION

8.1.1. Description of the global student's assessment strategy of the Establishment

The VFB is committed to develop and implement a process of continuous assessment in accordance with the contents and the expected acquisition of competences and ensuring the transparency of the assessment process and the rights of the students. The process for student assessment follows the assessment regulations approved by the FB of the VFB based on the guidelines and regulations approved by the UAB (http://www.uab.cat/doc/DOC_Normativa_Avaluacio_FV). In addition, the IQAS includes a chapter on student assessment (http://www.uab.cat/doc/PC5_Avaluacio_alumne_Veterinaria).

For a given course, the SC proposes to the CAAQ an assessment plan with indication of the types of tests, the weight of each evaluation activity, the conditions for averaging or compensating qualifications of the different assessment activities as well as any other relevant information. If approved, all this information is included in the SG. SG are public and can be consulted through the VFB website (http://www.uab.cat/web/estudiar/graus/graus/horaris-dels-graus-i-guies-docents-1345711138869.html). Rubrics are used for assessment.

Most subjects combine different types of assessment from classical written assays to multiple choice exams, from oral presentations to group written reports. When the assessment is done by means of an activity requiring the presence of the student (oral presentation, classical exams, etc.) this is indicated (day, time and place) in the calendar of activities at the beginning of the course. Any change in the schedule of exams requires previous approval by the DC and communication to the students at least 48h in advance using the usual means (Moodle, email, etc.). Usually, the changes are previously agreed with the representatives of students.

8.1.2. Description of the specific methodologies for assessing theoretical knowledge, pre-clinical practical skills, clinical practical skills

- Theoretical knowledge: Assessment of theoretical knowledge is carried out through written examinations, which, depending on the subject, can be multiple choice or true/false tests, identification of images, short answer questions or written assays. If necessary, assessment is complemented with the resolution of problems or cases related to the topics studied (usually in written or through oral presentations). In many subjects, the theoretical lectures may also include discussion activities that are also assessed. It is worth noting that assessment of theoretical knowledge is distributed between several activities across the semester (commonly known as "partial exams"). By this means, assessment is usually split into the different units of knowledge. As a rule, and in order of avoiding overload of assessment activities, the number of "partial exams" is restricted to 2 or 3 depending on the number of credits of each subject.

- Pre-clinical practical skills: The acquisition of pre-clinical skills is evaluated mainly at the end of each practical session or group of sessions for a given topic. Depending on the nature of the contents taught, assessment may range from a simple demonstration of the acquisition of the skill to an oral presentation or a written report. The attitude and the pro-activity of the student are also evaluated.

-Clinical practical skills: The acquisition of clinical practical skills is evaluated through practical exams, resolution of real cases (both orally and in writing), and by the assessment of the clinical duties during rotations and other clinical activities. In the case of rotations, students must complete a portfolio (logbook) with a detail of the relevant activities carried out in the hospital (cases, procedures, treatments, etc.). The assessment usually includes practical skills (for example, the ability to perform a given procedure) as well as the integration of previous knowledge, the clinical judgement capability, the ability to communicate, the ability to work in a team, etc. The use of rubrics helps to increase the transparency of the assessment process.

8.1.3. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as described in the ESEVT Day One Competences

The assessment methods used in each of the different subjects are described in the respective SG. The process for ensuring the acquisition of Day-One competences starts by the design of the programme. The syllabus is designed to ensure that all Day-One competences are included in the programme and are considered at the expected depth. The second step consists in the formulation of the SG of each subject. The SG must state clearly the expected learning outcomes, the competences and the assessment methods. The SG must be approved by the DC who checks the adequacy of the guide with the programme. By this means, the inclusion of the competences is ensured, and the corresponding learning outcomes are considered in the assessment. **SG are revised annually**. In addition, at the end of every semester there is a meeting between the students, the SC and the DC to detect problems and possible ways to solve them. In case that a deficiency in the achievement of a competence, the DC can raise the issue to the CAAQ for modification of the teaching activities and the SG.

8.1.4. Description of the processes for:

- ensuring the advertising and transparency of the assessment criteria/procedures: The general evaluation criteria and procedures are regulated by the CAAQ and described in the VFB assessment regulations approved by the FB (http://www.uab.cat/doc/DOC_Normativa_Avaluacio_FV). In this process, the achievement of the training objectives is assessed based on objective and quantifiable evidences and through transparent and duly diffused criteria. The individual assessment criteria used in each subject comply are explained in each SG (available before the beginning of the academic year). As explained elsewhere in the present document, SG are available in the VFB. Similarly, the calendar of teaching activities including exam days, days for presentations, etc., are advertised through the web at the beginning of each academic year. Changes to the calendar require previous approval by the DC and are disseminated through the internet (website and Moodle).

- awarding grades, including explicit requirements for barrier assessments: In the Spanish system, grades are expressed in a 0-10 scale, with a single decimal. To pass a subject a minimum of 5.0/10 is required. The numeric grade is accompanied by a qualitative qualification as follows: Pas: 5-6.9, Remarkable: 7-8.9, Excellent $\geq$ 9. Students having a mark $\geq$ 9 may be awarded an "Excellent with honours" mention that entitles for a discount in the next year fees. This mention can be awarded at maximum to the top 5% of the students of a given course. This mention is awarded discretionally by the SC.

Grades are awarded by the SC according to the rules stated in the SG. Similarly, specific requirements must be clearly stated in the SG. For example, if a minimum of attendance is required it must be said in the guide.

A special case is that of the students that for some reason do not attend all required activities of a given course. In this situation the qualification can be "cannot be assessed" if the student failed to attend more than 50% of the activities or "fail" if the student participated in more than 50% of the activities.

- providing to students a feedback post-assessment and a guidance for requested improvement: Students have the right to revise the result of all their assessment activities. There is an **ordinary revision** beginning at least 24 hours after the publication of the qualifications and ending the seventh day. If previously announced publicly with 48h of advance the revision can be carried out in the same day of the publication of the qualifications. In this revision the student may review the assessment evidences and ask for a modification of the qualification based on a reasoned motivation. The teachers must explain in detail what the correct answers were and what errors or omissions the students did, justifying the qualification based on the correction criteria. An **extraordinary revision** process requiring the appointment of a jury by the dean can be requested in an appeal procedure (see below).

Custody of the assessment evidences is under the responsibility of each SC and is done according to the current regulations of the UAB and the assessment framework of the Faculty.

- **Appealing:** As stated above, in case of disagreement with the qualification awarded in the ordinary review, the student can access an **extraordinary revision**. To do this, the student must present in the academic management

office a reasoned request addressed to the dean. This procedure always involves the audience of the teaching staff responsible for the qualification and the students involved. Applications are resolved within a maximum period of one month.

8.1.5. Description of how and by who the student's assessment strategy is decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The general rules governing the assessment strategy is proposed by the Governing Team of the VFB to the FB. Usually, this proposal has been previously approved by the CAAQ to ensure that the proposal has the agreement of the academic and support staff and of the students, all of them with representatives in the commission. In any case, the FB has the last decision on it. Within this framework, the teaching staff responsible for the subjects and the DC make the proposals for the assessment of each subject to the CAAQ. Once approved, the assessment methodology of a subject cannot be modified without a new decision of the CAAQ.

The review of the procedures and assessment criteria of the VFB is regulated by the IQAS (http://www.uab.cat/web/estudiar/graus/sistema-de-garantia-interna-de-qualitat/sgiq-de-la-facultat-1345711140042.html). The Dean's Team is the ultimate responsible for conducting the review and proposing improvement actions when necessary. Monitoring of the proposed improvements is done through the comments of the subject evaluation meetings at the end of each semester, the comments and proposals of the CAAQ, the values of different indicators (success rates, etc.) as well as the suggestions and complaints received. The implementation of the specific improvements approved by the CAAQ is under the responsibility of the teaching staff of each subject.

8.2. COMMENTS

The current UAB and VFB regulations regarding the assessment ensure the transparency of the process and have been a clear improvement compared to the previous system. Nevertheless, the obligation of carrying out at least three assessment activities per subject creates a strong pressure on the students because of the feeling of "being examined" continuously.

8.3. SUGGESTIONS FOR IMPROVEMENT

Establishing a limit of no more than one assessment/exam for every 3 ECTS, at least for theoretical knowledges, would decrease the pressure on the students.

9. ACADEMIC AND SUPPORT STAFF

9. ACADEMIC AND SUPPORT STAFF

9.1. FACTUAL INFORMATION

9.1.1. Description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered and that staff are properly qualified and prepared for their roles.

The **current veterinary curriculum is based on competences and learning outcomes that** are reflected in the SG (please, see chapter 3 for details). To be approved by the university and the quality assurance agencies in Spain (AQU/ANECA), the curriculum as a whole must cover all the competences indicated by the regulations. Changes in the SG of a particular subject implying a modification in the competences, in the number of practical, clinical or theoretical activities or in the size of the number of students per group must be firstly approved by the CAAQ. If the modification of the subjects results in a change of the global set of competences, not just a mere re-distribution among subjects, it must be approved by the University. A modification affecting more than 10% of all teaching activities requires the approval of AQU and ANECA.

Each subject is assigned to a given department by the FB. The department in charge of the teaching of a given subject appoints the academic staff and designates a SC based on the proficiency of the academic staff for the different subjects. The SC is responsible for appointing the teachers that will participate in that course.

The process of **recruitment of academic staff** is based on the teaching needs of the departments, and positions are linked to areas of knowledge with a specific teaching profile (see 9.1.2). This guarantees the suitability of the academic staff to fulfil the teaching duties assigned to them.

Regarding the **qualification of the teachers** involved, most of the FTE academic staff (79%) has a permanent position and, of them, 75% are veterinarians. Moreover, 28.7% of the FTE are EBVS Diplomates, and a number of them are members of different National Expert Committees or Agencies, etc. The academic staff also has an active participation in research activities as indicated by the existence of 16 consolidated research groups and 18 Laboratories offering internal (UAB) or external service. In the last evaluation by AQU, the academic staff was considered excellent.

In the current organization of the Spanish university system, the **evaluation of the teaching quality of the academic staff** is done by the higher education institutions. UAB evaluates the teaching activity of its staff every 5-year period according to the procedures and criteria described in the *Guide for the Evaluation of the Teaching Activity of the Academic Staff of the UAB*. This guide was certified by AQU in the frame of the DOCENTIA programme developed by ANECA, which objective is to provide the model and the procedures to address the evaluation of the teaching activity in the university.

In addition, the **quality of the research** is also evaluated by 6-year periods. This evaluation is carried out in the corresponding quality agencies through specific committees for the evaluation of the research activity. In both cases (teaching and research), teachers awarded with positive evaluation receive a plus to their salary.

The UAB has a **permanent program of continuing education and training for the academic staff,** including a specific program for training of new academic staff. The latter is organised in different activities including among others: planning of a subject, evaluation methodologies, the teaching portfolio, etc. The general training program open to all academic staff includes topics covering from the assessment of learning to gender issues. These programs are organised by the UAB Teaching and Quality Office (TQO).

Another university program - Innovation and Improvement of Teaching – also managed by the TQO, offers funding opportunities for initiatives directed to the improvement of teaching. In the last two years, 7 projects presented by the VFB staff were approved.

Besides this, the VFB has a TIC which function is to drive the application of new pedagogic methodologies of interest for teaching in the Veterinary Degree or in the food science and technology degree. In the last years, several workshops and activities have been organized.

In addition to the abovementioned programs and activities, **other specific actions** are organised. For example, courses on how to manage Moodle platforms or bibliographical resources. Emphasis is made in the introduction of English as a third vehicular language (besides Catalan and Spanish) in the teaching activities. For this, the Program of Aid for the Intensification of Teaching in English organized courses for the academic staff.

Regarding **training in biosecurity**, a biosafety training program ensures that all members of the university community who handle biological agents receive sufficient theoretical and practical training to identify biological risks and to take preventive measures to minimise these. This training is required both when joining the organisation (initial training) and at subsequent intervals (continuous professional development). It is compulsory for support staff in risk areas. This program is organised by the Institutional Biosafety Committee of the UAB.

9.1.2. Description of the formal programme for the selection, recruitment and training to teach and assess students (including continuing education) of the academic staff.

Programme for the selection and recruitment of academic staff:

The university needs of academic staff are based on the teaching needs of each department. Therefore, positions are linked to areas of knowledge with a specific teaching profile.

The process for selection and recruitment of the academic staff can vary depending on the type of contract. In the UAB, there are two types of academic staff, tenured and hired:

- **Tenured teachers** are civil servants (Professors). They can be either "Titular de Universidad" or "Catedrático de Universidad". The selection is through a competitive process between candidates previously accredited by ANECA. Applicants must present a teaching project along with their research and academic merits.
- **Hired teachers** may be permanent; non-permanent full-time or non-permanent part-time.
  - ✓ **Hired permanent teachers** are called "Agregados". The selection is also through a competitive process like tenured teachers requiring previous accreditation by AQU or ANECA.
  - ✓ **Hired non-permanent full-time teachers.** "Lector": Candidates must hold a PhD degree and must be accredited by AQU. Selection is competitive. This position is 5-year term. Besides this, it is possible to cover in the interim a vacant of a full-time permanent professor with a hired teacher.
  - ✓ **Hired non-permanent part-time teachers**: These positions can be either "Profesor asociado" or "Clínico asociado". In both cases, they must be professionals working outside the university (Hospitals, renowned professionals of different areas, etc.). For them there is no obligation to hold a PhD nor to be accredited by AQU or ANECA, but again they must be selected in a public tender.

9.1.3. Description of the formal programme for the selection, recruitment and training to perform their specific duties (including continuing education) of the support staff.

The support staff is constituted by civil servants and by personnel under the labour contract regime. Civil servants are governed by the Laws of Public Administration and of Civil Servants of the Spanish and Catalan Governments. Hired support personnel is also governed by labour legislation and specific regulations.

The selection and recruitment of structural support staff directly depends on the UAB government and manager, who decide what positions need to be offered and the number and type of personnel needed. These needs are calculated based mainly on the number and nature of the degrees offered and the number of credits imparted, the number of academic staff and considering the special needs of some services (for example farms, etc.). It is also possible to hire temporary support personnel to provide specific support to services or research projects. In this case, funds for hiring such personnel have to be provided by the service or project.

The process of **recruiting support personnel**, both civil servants and hired staff, follows the principles of publicity, equality, capacity and merit, and the systems of selection are those established in the current legislation. The calls, duly

published, must mention the requisites of the applicants and the criteria and procedures for the selection. Resolutions of each call are public. The normal system of job provision (internal mobility) is the competitive examination, with established scales and procedures.

Support staff receives an annual training plan organized in three levels:

- **Basic and continuous training**: aimed at improving the level of specific knowledge of the job.
- **Training for promotion**: aimed at facilitating the promotion of personnel within the university.
- **Integral training of the person**: aimed at improving the level of knowledge, without having to be related to the job.

The five main axes of this training are: i) administrative management; ii) information and communication technologies; iii) occupational health; iv) training for technical personnel and v) training linked to specific objectives of the services.

9.1.4. Description of the formal programme for the appraisal, development, promotion criteria and procedures, supporting and mentoring of both academic and support staff.

The promotion of the academic staff from a non-permanent position to a permanent one is through an open (public) tender based on merits. This system is intended to promote the excellence of the teachers to get the best-qualified staff for these positions. Within the permanent positions, the promotion to a higher category mainly depends on the quality of the research activity of the teacher, as it is necessary to have the corresponding accreditation by AQU or ANECA.

As previously described, the research and teaching quality of the teachers are evaluated by 6-year and 5-year periods respectively. In both cases, positive evaluations are reflected in an increase on the salary. In addition, teachers with at least three research periods evaluated positively enjoy a reduction of 8 ECTS in their teaching activities.

In relation to support staff, the promotion depends on the percentage of existing vacancies, in accordance with current legislation and internal agreements. In case of need, a vacant can be covered temporarily by a person belonging to a lower category if he/she fulfils all the requirements for such a position (interim position). After a period, an open tender has to be published.

9.1.5. Description of the formal rules governing outside work, including consultation and private practice, by staff working at the Establishment.

According to the Spanish and Catalan laws, **full time teachers are not allowed to have an outside job** (consultation or private practice) **except through institutional agreements between the UAB and third parties**. Exceptions include non-regular activities such as conferences, lectures, short courses, or participation in evaluation boards, provided that those activities do not interfere with teaching duties. This is not the case of part-time hired positions (i.e. associate teachers) as outside work is mandatory to get them.

9.1.6. Description of the formal programme of the Establishment for the assessment of teachers by students and its outcome.

The assessment of teachers by students is performed at UAB and VFB levels.

a) **Evaluation and satisfaction surveys** are a part of the IQAS of the UAB. There are two types of surveys: those evaluating the teaching performance of the academic staff (for example, the clarity of the lecture, the ability to promote the participation of the students, and tutorial activities) and those that evaluate the development of the subjects (for example, structure, programming and workload for students). These surveys are done at the end of each semester, and the results obtained are analysed and assessed by the TQO. The corresponding reports are sent to the professor, to the departments and to the VFB.

b) Subject evaluation surveys performed by VFB, which results are discussed in the subsequent meeting that take place with the participation of students, SC, CD and the AAQ vice dean (see chapter 3).

As mentioned previously (see 9.1.1.), the teachers can request to the UAB the recognition of their teaching quality by 5-year periods. The evaluation, carried out by a specific *ad hoc* committee of the university, is based on the self-report presented by the teacher, the results obtained in the institutional surveys, and the report submitted by the dean. A negative report by the dean implies the denial of the teaching merit.

9.1.7. Prospected number of FTE academic and support staff of the veterinary programme for the next 3 academic years.

There is a *numerus clausus* policy and this restriction is expected to be maintained. Also, under the current Spanish regulation the increase of the number of credits or the duration of the veterinary curriculum is not expected in the short-term. Moreover, the current student/teacher and student/support staff ratios are within an acceptable range, Therefore, no major changes are expected beyond the renewal of retirees.

9.1.8. Description of how (procedures) and by who (description of the committee structure) the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff is decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

The UAB Rectorate draws an annual plan for the recruitment, stabilisation and promotion of staff. The UAB establishes the personnel needs based on the number of students, the number of credits to be imparted and the type of teaching and support activities of each department. This plan is approved by the UAB Council. The needs are adjusted to the available budget and to the existing limitation imposed by the regional and national governments avoiding an increase of the staff budget in public universities. Accordingly, most of the new tenured positions are aimed to fulfil the replacement rate (retirements, deaths) or to promotions. For contracted personnel (full or part-time staff) an increase in the number of hands-on extramural activities in small groups usually implies the recruitment of part-time teachers.

Table 9.1.1. Academic staff of the veterinary programme (FTE)

Type of contract	17-18	16-17	15-16	Mean
Permanent staff				
Full Professors [1]	23.50	24.50	21.50	23.17
Professors [2]	57.75	55.0	59.75	57.50
Subtotal	**81.25**	**79.50**	**81.25**	**80.67**
Temporary staff				
Lecturer [3]	0.75	4.75	4.75	3.42
Associate teachers [4]	6.50	6.25	7.25	6.67
Clinical Associate Teachers [5]	9.50	10.75	12.25	10.83
Postgraduate assistants	3.00	2.25	2.00	2.42
Posdoctoral students	1.00	0.75	0.50	0.75
Subtotal	**20.75**	**24.75**	**26.75**	**24.09**
Total	**102**	**104.25**	**108**	**104.75**

[1] Full Professor (*Catedrático de Universidad*): full-time, civil servant position. [2] Professors (*Titular de Universidad* and *Agregado*) full-time, civil servant or hired positions. [3] Lecturer (*Titular interino, Agregado Interino, Lector*): full-time. [4] Associate Teachers (*Profesor Asociado*): part-time. [5] Clinical Associate Teachers (*Clínico Asociado*): part-time.

Table 9.1.2. Percentage (%) of veterinarians in academic staff (FTE)

Type of contract	17-18	16-17	15-16	Mean
Permanent	74.8	78.6	77.8	77.1
Temporary	77.1	64.6	68.2	70.0

Table 9.1.3. Support staff of the veterinary programme

Type of contract	17-18	16-17	15-16	Mean
Permanent				
Civil servants	41	40	40	40.3
Non-civil servants	73.5	75.5	75.5	74.8
Temporary	74.5	70.5	67.5	70.8
Total	189	186	183	186

Table 9.1.4. Research staff of the Establishment

Type of contract	17-18	16-17	15-16	Mean
Permanent*	N.A.	N.A.	N.A.	
Temporary**				
Predoctoral	82	77	87	82
Postdoctoral	5	7	4	5.3
Total	87	84	91	87.3

*Most of the permanent academic staff of the VFB also conducts research activities

**Both predoctoral and postdoctoral researchers are full-time staff.

9.2. COMMENTS

Regarding the gender distribution of the FTE academic staff, 43,1% are women (91,5% of them in a permanent position) and 56,9% are men (87,1% of them with permanent position).

Due to the recent economic crisis, governments (both Spanish and Catalan), stopped calling places in the public sector, including universities. As a result, there were no new contracts of teachers and support staff beyond the few that were convened with the objective of covering retirements or death. On the other hand, the budgetary restrictions suffered by the universities meant that, in many cases, the positions of associate teachers changed to a lower salary contract. After 8 years of applying those policies the staff is aging. However, the student/teacher and student/support staff ratio remained within acceptable limits.

One of the main problems that teachers are facing nowadays is the excessive workload associated with management tasks because of the increasingly demanding processes associated with quality systems. The elaboration of follow-up reports of the degrees, the implementation of the IQAS and other managerial tasks was done without any increase in the academic staff. To alleviate this problem, the UAB created the figure of Quality Management Support Staff. At present, one of those support staff have been assigned (part-time) to the VFB.

9.3. SUGGESTIONS FOR IMPROVEMENT

The legal framework relegates the VFB to a subsidiary position in the process of contracting new staff. It is imperative to create a coordinated framework with the departments to face the replacement of an aging teaching staff. Also, strategies must be developed to maintain the motivation of the existing staff and the institution should encourage more clearly the teaching innovation initiatives. Efforts for the increase of the administrative support staff must be made.

10. RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

10. RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

10.1 FACTUAL INFORMATION

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

The VFB is a higher education centre of international prestige by its research activities in different fields of veterinary science (9th position in the Shanghai Ranking 2018). The number of scientific projects is high and several research groups have a leading position in their areas of knowledge. As a result, the teaching staff is extremely aware of scientific nature of our degree and of the importance of having scientific evidences in the decision-taking processes of the daily practice.

This strong involvement in research provides an excellent environment to promote the notion that medical decisions must be based on solid data and reliable scientific evidences. The Final Degree Project is a compulsory subject where the student must perform either an experimental or clinical research work or a scientific literature review under the supervision of a teacher. This work is assessed in the format of a scientific presentation.

In fact, the VFB is one of the few veterinary Establishments in Spain offering a full range of elective subjects focused in research. Among them is worth mentioning two subjects: "Experimental Design and Research Projects" and "Laboratory Animal Science".

In addition, the academic staff encourage the participation of students in research activities through the scholarship programme of the Ministry of Education aimed at 5th-year students. Every year, between 7-8 students of the VFB are awarded these scholarships.

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

Currently, the VFB offer 14 EBVS residency programmes allowing the training of 28 residents/year. In addition, we offer 24 places for postgraduate internships. Residents and interns play an important role as a support for clinical activities as well as they contribute to the mentoring of undergraduate students at the VTH and the VFB. For example, residents participate actively in the case discussion sessions with the students at the VTH and may act as junior mentors during rotations. Given that the tasks and responsibilities of each group (students, interns, and residents) are well defined, conflicts in the handling of cases are uncommon. If some problem arises, the senior clinician who directs the practice is responsible for analysing and solving the conflict. If necessary, the Head of Service or the Teaching Coordinator at the VTH may act to solve the dispute (never happened up to now). A major issue could be eventually transmitted to the Board of Trustees of the VTH (this has never been necessary).

10.1.3. Description of how undergraduate students:

- are made aware of the importance of evidence-based medicine, scientific research and lifelong learning

As stated before in this chapter, the strong involvement of the academic staff in research makes this evidence-based medicine concept a motto across all the curriculum. For example, as soon as in the 2nd year, one of the expected learning outcomes is to understand the importance of applying the scientific method to professional practice including the evidence-based medicine (SG of Epidemiology and Statistics). These concepts, along with the importance of lifelong learning are incorporated in many subjects of the curriculum.

-are initiated to bibliographic search, scientific methods and research techniques, and writing of scientific papers

As stated above, students are made aware of the importance of a scientific approach from the first courses. However, deepening in this area is mainly made in the 4th and 5th year. In several subjects, students have assignments requiring bibliographical search and writing in a scientific style. In the 5th year, the Final Degree Project is planned and developed as a work including scientific literature search, critical assessment of the papers and research activities. This compulsory subject is assessed by means of an oral presentation (similar to a communication in a congress) plus a paper that must fit the standards of scientific journals. Students have several sessions of introduction to the platforms for bibliographic research.

- are offered to participate to research programmes on a non-compulsory basis

Please see 10.1.1. to avoid unnecessary repetition

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

The VFB offers a wide range of training activities, from specialization courses to masters, covering the different areas of the veterinary profession. In terms of contents, many of the continuous education activities arise from the demand of professional bodies (Colleges), professional associations (for example, the Small Animal Veterinary Association, Catalan Association of Swine Veterinarians), the administration as well as pharmaceutical and agri-food companies. The recent creation of the External Advisory Board will help to better identify the profession and society needs.

Most of these activities are programmed in way allowing professionals to combine their training with their daily work. This is achieved by doing modular activities, online courses, etc.

10.1.5. Prospected number of students registered at postgraduate programs for the next 3 academic years.

At present there are about 500 postgraduate students enrolled in these types of activities per year plus some 150 enrolled in PhD programmes. Overall, there are about 700 students enrolled in those programs. There is still some potential for growth in the number of masters offered and some more PhD students could be enrolled but we are close to the limit of our potential offer. However, online postgraduate courses could still increase.

10.1.6. Description of how and by who research, continuing and postgraduate education programs organized by the Establishment are decided, communicated to staff, students and stakeholders, assessed and revised.

In the Spanish system, most research activities are under the Departments and not the Establishment. Thus, research projects are initiatives of the researchers or the Departments. Continuous and undergraduate programs must be approved by the Commission of Masters of the VFB (see chapter 1) if are intended to be official programs. If not, the only approval required is from the Postgraduate Studies School of the UAB. In any case, dissemination of these activities is done through the VFB and UAB websites. Assessment and revision follow the same process. As explained before, one of the functions of the External Advisory Board is to give advice on the needs in this area.

Table 10.1.1. Number of students registered at postgraduate clinical training

TRAINING	2017-18	2016-17	2015-16	MEAN
INTERNS (1-year program):				
Companion animals	16	16	15	16
Equine	5	5	5	5
Pathology	3	3	4	3
Total	24	24	24	24
RESIDENTS (EBVS disciplines)				
Ophtalmology – ECVO	3	3	3	3
Neurology – ECVN	3	3	3	3
Internal Medicine - ECVIM-CA	2	2	2	2
Diagnostic Imaging – ECVDI	2	2	2	2
Exotic pet medicine – ECZM	1	1	1	1
Animal Welfare and Behaviour Medicine - ECAWBM	1	1	1	1
Dermatology – ECVD	2	1	1	1
Clinical Pathology – ECVCP	2	2	2	2
Equine Internal Medicine – ECEIM	1	1	1	1
Equine Surgery – ECVS	1	1	1	1
Pathology – ECVP	2	3	3	3
Laboratory Animals – ECLAM	3	3	2	3
Porcine Health and Management – ECPHM	5	5	5	5
Reproduction – ECAR	1	1	1	1
Total	**29**	**29**	**28**	**28.7**
Total nº of interns and residents	**53**	**53**	**52**	**52.6**

Table 10.1.2. Number of students registered at postgraduate research training

Description of the programme	YEARS			
PhD students in programmes of the VFB	**17-18**	**16-17**	**15-16**	*Mean*
Animal Medicine and Health	79	79	80	79.3
Animal Production	66	58	43	55.7
Food Science	21	29	9	19.7
Total	**166**	**166**	**132**	**158**
PhD students in other programmes with the participation of the VFB	**201**	**192**	**222**	**205**
Total nº students in PhD programmes	**367**	**358**	**354**	**363**
Official Master progammes of the VFB				
Quality of Food of Animal Origin	16	10	21	15.7
Zoonosis and One Health	16	22	NA	19.0
Erasmus Mundus in Science in Infectious Diseases and One Health	24	NA	NA	24.0
Total	**56**	**32**	**21**	**36.3**
Official Master programmes with the participation of the VFB	**106**	**102**	**95**	**101**
Total nº students in Master programmes	**162**	**134**	**116**	**137.3**
Total nº of postgraduate students	**529**	**492**	**470**	**497**

Table 10.1.3. Number of students registered at other postgraduate programmes (including any external/distance learning courses) (>30 ECTS)

PROGRAMMES		17-18	16-17	15-16	Mean
Non-official Master's	ECTS				
Laboratory Animal Science and Welfare (FELASA)	90	24	32	39	31.7
Clinical Ethology	60	9	27	26	20.7
Equine Physiotherapy	66	22	0	14	12.0
Total		**55**	**59**	**79**	**64**
Diplomas					
Emergency Medicine and Critical Care in Small Animals	30	6	12	N.A.	6.0
Equine Clinical Practice	30	0	5	11	5.3
Small Animal Clinics	30	16	40	44	33.3
Small Animal Clinic (Online)	30	40	62	N.A.	51.0
Surgery and Anaesthesia in Small Animals	30	0	20	27	15.7
Laboratory Animal Sciences and Medicine	30	3	N.A.	N.A.	3
Total		**62**	**139**	**82**	**94**
Total nº of students		**117**	**198**	**161**	**158.7**

Table 10.1.4. Number of attendees to continuing education courses provided by the Establishment (<30 ECTS)

Category	17-18	16-17	15-16	Mean
Students enrolled in single courses belonging to diplomas or masters	132	161	37	110
Students enrolled in other courses	300	702	781	594.3
Total nº of students	**432**	**863**	**818**	**604.3**

Table 10.1.5. List of the major funded research programmes in the Establishment which were on-going during the last full academic year prior the Visitation (2017/18)

Funding body	Area	Nº projects	(€)	DURATION
European Commission	Biomedicine	3	515,467	2015-2020
	Animal Health	2	1,318,000	2015-2020
	Animal Science	1	214,335	2015-2017
Other International Projects	Animal Science	3	154,743	2015-2019
	Animal Medicine and Surgery	3	142,808	2016-2019
	Biomedicine	2	283,908	2015-2017
	Animal Health	1	10,340	2018
	Food Science	1	150,000	2016-2019
Spanish Ministry of Science	Animal Science	11	2,053,400	2015-2020
	Animal Medicine and Surgery	5	737,547	
	Animal Health	5	626,979	
	Biomedicine	3	863,093	
	Food Science	3	483,000	
	Pharmacology	2	261,965	
University-Enterprise projects	Multidisciplinary	11	764,655	2015-2019
Other Projects	Multidisciplinary	2	145,079	2017-2019
Industrial doctorates	Multidisciplinary	3	88,680	2016-2020
Total		61	8,813,999	

10.2. COMMENTS

Our faculty has a great commitment to research activity. In the last 3 years, more than 8 million € have been obtained for research projects in different public calls (national and international) and agreements with companies. This intense activity allows our teachers to be at the forefront of knowledge in veterinary sciences, with a positive impact on the quality of training of our undergraduate and graduate students. This also favours the exchange of knowledge at the international level through collaboration with partners, presence in international committees, recruitment of research staff and exchange of teachers, students and technical staff. No doubt this environment is a powerful incentive for postgraduate students.

The VFB offer of postgraduate courses is wide and diverse and has very good acceptance among the profession as evidenced by enrolment data.

10.3. SUGGESTIONS FOR IMPROVEMENT

To establish a list of priorities for postgraduate and continuous education in collaboration with the External Advisory Board.

11. OUTCOME ASSESSMENT AND QUALITY ASSURANCE

11. OUTCOME ASSESSMENT AND QUALITY ASSURANCE

11.1 FACTUAL INFORMATION

11.1.1. Description of the Establishment's global strategy for outcome assessment and quality assurance (QA).

The VFB has been committed to quality from the beginning and has been awarded several honours in this area, for example the 2002 Jaume Vicens Vives Award (Catalan Government) for excellence in teaching. The VFB was one of the institutions participating in Transnational European Evaluation Project I, conducted by ENQA, to further the principles of evaluation and quality assurance in the European University (2003). The VFB also participated in the pilot plan for adaptation to the European Higher Education Area promoted by the Department of Universities, Research and Information Society of the Catalan Government (2004).

In the UAB, the **IQAS** was designed based on the guidelines established by ENQA and by the Spanish quality assurance agency: ANECA. The IQAS considers a series of quality assurance processes and bodies encompassing all aspects of university life, from teaching quality through to customer satisfaction. Each faculty must develop and approve an IQAS adapted to the peculiarities of each Establishment. The VFB IQAS was positively evaluated by ANECA (Spanish Agency for the Evaluation of Quality and Accreditation) in 2010.

It is worth mentioning two types of processes considered in the IQAS:

a) **Processes aimed to assure quality of teaching and the internal monitoring of the programmes of instruction and the attention given to students**. For example, at the beginning of each academic year, the SG for each course must be publicly available and must include the subjects included in the course, the distribution of hours (theory lectures, clinical work, laboratory work, self-learning, etc.), the methodology for the assessment, the participating teachers, etc. The process designated PC2 (Programming) indicates how, when and where this information must be prepared, approved and shown, and by whom. Other processes govern other aspects (for example PC3 for internships, PC6 for student exchange mobility, etc.). The adoption of such processes ——for which records are available— lends transparency to all the procedures and facilitates the assessment of teaching.

b) **Processes within the framework of the verification, monitoring, modification and accreditation processes.** Under Spanish law all degrees must be verified for compliance with all European and national regulations before being offered. Besides this, all degrees offered by an Establishment are subject to accreditation and annual monitoring. The creation and design of degrees is subject to process PE3 of the VFB IQAS while monitoring, evaluation and actions to improve or develop the curriculum are subject to process PC7.

The activities and processes under IQAS are coordinated by the AAQ vice-dean with the assistance of DC and supervised by the dean. The IQAS or its modifications **must be approved by the FB** (see chapter 1). The ordinary monitoring is performed by the **CAAQ**, which act as a delegate bodies of the FB. **This commission assesses the teaching activities and the evaluation systems of the different courses** with the aim of guaranteeing their suitability for the acquisition of the competences indicated in the programme. In this assessment, particular importance is given to aligning the teaching and evaluation methodologies with the expected competences and skills to be acquired and with the student.

The **IQAS is reviewed annually** focusing basically on the degree of qualitative compliance of the processes and the quantitative indicators. The data used are collected from several sources: surveys, factual data, etc. The UAB centrally collates a series of indicators (access and enrolment, teaching staff, academic results and their evolution) that are accessible through the web. Other data are collected by each Establishment using common processes for all the university (for example, graduate job search, process PS5). In addition, other complementary indicators are published in the Datawarehouse database of the UAB, which is accessible through the intranet. **The VFB is assisted by the TQO** of the UAB in all matters relating to the management of the IQAS. The TQO reports to the office of the vice-rector for Academic Programming and Quality.

The AAQ vice-dean produces an **annual monitoring report** that is submitted to the CAAQ and ratified by the FB. The AAQ Committee of the UAB examines all approved reports for inconsistencies and then they are sent to AQU, which acts as an independent evaluation body. These reports are **accessible through the web**.

Besides the annual monitoring, **AQU evaluates the degrees every six years for accreditation**. This evaluation includes: a) quality of the training programme, b) relevance of publicly available information, c) efficiency of the IQAS of the degree, d) adaptation of the teaching staff to the training programme, e) efficiency of learning support systems, f) quality of the results of the training programme. **On 31 January 2017 the VFB was awarded the accreditation of excellence for the Veterinary Degree.**

Regarding the provision of lecturing positions and lecturer selection, the IQAS of the UAB establishes a specific process (PE4: definition of the academic and research staff policy). Similarly, specific processes are defined for the improvement of teaching activities of newly appointed staff (PS1: lecturer training) and for the evaluation of teaching performance (PS9: Evaluation of lecturing staff). It is worth mentioning that, within the framework of AQU accreditation, the VFB was awarded the excellence award for the "Adaptation of the lecturing staff to the programme of instruction".

The management of the necessary resources for teaching (Process PS3 in the VFB IQAS) is done by the staff and students through the semester meetings, the CAAQ or the AAQ and ES vice deans who also determine whether the funding for the actions to be taken can be obtained from the ordinary VFB budget or through specific calls, or whether additional funding from the university is required.

11.1.2 Description of the form by which the strategy, policy and procedures are made formal and are publicly available.

The strategic plan and the IQAS are approved by the FB and made publicly available through the **VFB website**. The following documents are accessible: The strategic plan of the VFB (2018-2021), the IQAS, the tutorial action plan, the self-evaluation reports together with the reports issued by the agencies, the composition of the governing bodies and the satisfaction surveys (UAB website). In the framework of the accreditation process AQU conferred on the FVB the excellence award for "relevance of public information".

11.1.3 Description of the regular publication of up-to-date, impartial and objective information, both quantitative and qualitative, about the educational programmes and awards the Establishment is offering.

Basic data for the official degrees taught by the VFB are published on a web page (*El Grau en xifres*): admission, curriculum, mobility, collaborating centres, etc. The **SGs** for each course are publicly available on the VFB website once approved by the CAAQ (at least two months before the beginning of the course). All information about non-official master's degrees, diplomas and specialisation courses is accessible through the website of the Postgraduate Studies School.

11.1.4. Description of the QA processes not yet described in the other 10 Standards.

The IQAS of the VFB only includes the processes related to the management of teaching activities. Processes related to all other aspects —recruiting and management of administrative staff (Process PE5: Administration and support staff policy) and others that are not directly related to teaching— are included in the UAB IQAS.

11.1.5. Description of how and by who the QA strategy of the Establishment is decided, communicated to staff, students and stakeholders, implemented, assessed and revised.

As explained above, a part of the general QA strategy is university-wide and, accordingly, it is the Governing Council that finally decides the general lines. Usually, this process starts with the UAB Quality Commission and the Office of the Vice-Rector for Academic Programming and Quality, which prepare proposals and reports. The UAB QA strategy must be finally approved by the Governing Council and is made known to the community through the UAB website, by email and, if necessary, by means of local meetings in each Faculty.

In the case of the VFB, both the specific IQAS and the strategic plan are approved by the FB and are accessible through the VFB website. The process of revision and amendment is similar to that of the university but, in this case it starts with the CAAQ and ends with the FB.

11.2 COMMENTS

The implementations of the IQAS in the VFB resulted in an increased workload for both the academic and the administrative staff that has not been compensated by increasing the workforce. At present, most of the management of the IQAS (preparation of monitoring and accreditation reports, etc.) falls on the AAQ vice-dean, the DC and the dean. Recently a quality assurance specialist has been assigned to the VFB. This is expected to help reduce the overload of administrative work related to quality assurance.

Moreover, the IQAS focuses mainly on the management processes but does not include provisions for some aspects: for example, for receiving input from external stakeholders. In this context, the implementation of the strategic plan will be fundamental to making such improvements. The creation of the Advisory Board is a positive further step towards increasing quality.

11.3. SUGGESTIONS FOR IMPROVEMENT

At present, the VFB has two key documents that are complementary: the IQAS and the strategic plan. It is peremptory to define a strategy for the optimization of the implementation of both documents with the minimal increase in the workload.

12.ESEVT INDICATORS

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12.1. FACTUAL INFORMATION

	Raw data from the last 3 full academic years	17/18	16/17	15/16	Mean
1	n° of FTE academic staff involved in veterinary training	102	104.3	108	104.8
2	n° of undergraduate students	590	615	614	606.3
3	n° of FTE veterinarians involved in veterinary training	76.8	78.5	81.5	78.9
4	n° of students graduating annually	121	128	133	127.3
5	n° of FTE support staff involved in veterinary training	189	186	183	186
6	n° of hours of practical (non-clinical) training	758	743	739	746.6
7	n° of hours of clinical training	686	674	668	676
8	n° of hours of FSQ & VPH training	570	570	570	570
9	n° of hours of extra-mural practical training in FSQ & VPH	38	38	38	38
10	n° of companion animal patients seen intra-murally	20,046	18,628	16,229	18,301
11	n° of ruminant and pig patients seen intra-murally	0	0	0	0
12	n° of equine patients seen intra-murally	505	381	355	413.7
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	1,307	1,002	1,027	1,112.0
14	n° of companion animal patients seen extra-murally	525	579	436	513.3
15	n° of individual ruminants and pig patients seen extra-murally	860	813	1,563	1,078.7
16	n° of equine patients seen extra-murally	37	21	0	19.3
17	n° of visits to ruminant and pig herds	187	175	154	172.0
18	n° of visits of poultry and farmed rabbit units	106	87	80	91.0
19	n° of companion animal necropsies	162	163	162	162.3
20	n° of ruminant and pig necropsies	393	252	175	273.3
21	n° of equine necropsies	25	17	22	21.3
22	n° of rabbit, rodent, bird and exotic pet necropsies	312	258	279	283.0
23	n° of FTE specialised veterinarians involved in veterinary training	29.3	28.8	28	28.7
24	n° of PhD graduating annually	27(*)	37	38	34

(*) provisional data, pending of closing the PhD academic year.

	Calculated Indicators from raw data	VFB values	Median values	Minimal values	Balance
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.17	0.16	0.13	0.04
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0.62	0.87	0.59	0.030
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1.46	0.94	0.57	0.89
I4	n° of hours of practical (non-clinical) training	746.7	905.7	595	151.67
I5	n° of hours of clinical training	676	932.9	670	6
I6	n° of hours of FSQ & VPH training	570	287	174.40	395.60
I7	n° of hours of extra-mural practical training in FSQ & VPH	38	68	28.8	9.2
2I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	143.7	70.48	42.01	101.7
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0.000	2.69	0.46	-0.46
I10	n° of equine patients seen intra-murally / n° of students graduating annually	3.49	5.05	1.30	1.95
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	8.73	3.35	1.55	7.18
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	4.03	6.80	0.22	3.81
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	8.47	15.95	6.29	2.18
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0.15	2.11	0.60	-0.44
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	1.35	1.33	0.55	0.80
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.71	0.12	0.04	0.67
I17	n° of companion animal necropsies / n° of students graduating annually	1.28	2.07	1.40	-0.13
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2.15	2.32	0.97	1.18
I19	n° of equine necropsies / n° of students graduating annually	0.17	0.30	0.09	0.08
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	2.22	2.05	0.69	1.53
I21	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.26	0.20	0.06	0.16
I22	n° of PhD graduating annually / n° of students graduating annually	0.27	0.15	0.09	0.18

12.2. COMMENTS

Globally, the indicators show a positive balance with regards to the required standard. Values for companion animal patients seen, or rodents, rabbits and birds are well above the European median. The indicators also show a strong commitment for FSQ and VPH.

Regarding the clinical training, the VFB has greatly increased this area from the last evaluation in spite of the economic problems of the past years. The combined efforts of the university, the VFB and the VTH allowed to start clinical rotations since the 3rd year in an excellent hospital with a very high case load. Regarding livestock, the lack of available intramural ruminant and porcine patients (see chapter 5 for this) is well compensated by the extramural activities, with several farms and cases well above the minimal requirements. In the case of equines, the situation is opposite, with a high intra-mural activity but a lower extramural one. However, again, improvements have been made.

Number of necropsies for livestock, birds and exotics are very good. Unfortunately, this value is not that good for companion animals. As explained in chapter 5, the reasons behind this are diverse, from the economic cost of the necropsies to emotional and cultural aspects of the owners who are not familiar with the concept of donation. Regarding the economic cost, this has been solved. Regarding the donations of bodies, the VFB and the VTH created a Donation Programme not only for necropsies but also for anatomy. With these measures we expect that this indicator will be solved in the 2018-19 year. Taking into account that necropsies of other species are above the established minimum values, training of the students in this area is ensured.

Finally, it should be noted that both the indicators corresponding to the PhD graduating annually and those referred to the specialized veterinarians involved in veterinary training reflect the commitment of the VFB to research and quality training.

12.3 SUGGESTIONS FOR IMPROVEMENT

As mentioned, it is necessary to promote and reinforce the program of donation of bodies. Agreements with external equine premises must be promoted as well.

GLOSSARY

AAQ	Academic Affairs and Quality
ANECA	National Agency for the Quality Evaluation and Accreditation
AQU	Agency for the Quality of the University System of Catalonia
AVS	Assembly of Veterinary Students
CAAQ	Commission for Academic Affairs and Quality
CES	Commission for Economy and Services
CEV	Council of Veterinary Students
CM	Commission for Masters
CSA	Commission for Students Affairs
DC	Degree Coordinator
EA	Establishment Administrator
ENQA	European Association for Quality Assurance
ES	Economy and Services
EBVS	European Board of Veterinary Specialisation
FB	Faculty Board
FS	Farm Service
FTP	Food Technology Plant
IQAS	Internal Quality Assurance System of the UAB
LS	UAB Library Service
SA	Students Affairs
SC	Subject Coordinator
SG	Study Guide
TIC	Teaching Innovation Committee
TQO	Teaching Quality Office
UAB	Universitat Autònoma de Barcelona (Autonomous University of Barcelona)
UAP	Psycho-educational counselling unit
VTH	Veterinary Teaching Hospital
VFB	Veterinary Faculty of Barcelona

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