USC
UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

CAMPUS TERRA

Veterinary
Faculty

SELF EVALUATION REPORT

EAEVE

EAEVE LUGO 2018

European Association of Establishments for Veterinary Education

Index

INTRODUCTION

Introduction

Brief History of the Establishment and of its Previous ESVET Visitation

The Veterinary Faculty of Lugo (FVL) forms part of the University of Santiago de Compostela (USC), one of the oldest (founded 1495) and most prestigious universities in Europe. The FVL has its origins in the establishment of a Veterinary School in 1882 initially located in Santiago de Compostela. This school active 42 years until its closing in 1924. The current FVL of the USC was founded in 1984 and is located on a branch campus with several other faculties in Lugo (the so-called *Campus Terra*), some 95 km from Santiago. The *Campus Terra* is mainly oriented to the economic, social and environmentally sustainable use of the Earth's resources.

Since its foundation, the FVL has a good reputation and is respected in the USC and in the local and regional governmental bodies. These stems, apart from its own scientific and teaching merits and capacity, from the agro-zootechnical vocation of Galicia and the important role that the presence of the campus, of which the FVL is possibly the most representative establishment, has played in the cultural development of such a relatively small town as Lugo.

In 1998, the first evaluation of the Faculty was made by the EAEVE and certain major deficiencies were highlighted. These were corrected and, as a result of a revisit in March 2002, the FVL entered into the EAEVE's "List of Visited and Approved Establishments".

In 2008, the FVL obtained EAEVE-approved status again. Since then many changes affecting the organization, study programme, facilities and management have been introduced taking into account the comments of the Expert Group that visited our Faculty and the recently established legal changes regarding Degree programme in Veterinary Medicine.

Main Features of the Establishment

The FVL is the only Veterinary Faculty in the Autonomous Community of Galicia (with 2.7 million inhabitants), a region with a long tradition in agriculture, livestock and fisheries. Nevertheless, more than 50% of the students who enter the FVL each year come from outside the Autonomous Community of Galicia.

Several institutions and research groups settled in the FVL have high national and international recognition (see Standard 10).

The U-Ranking of Spanish universities, endorsed by the BBVA Foundation and the Valencian Institute of Economic Research, based on criteria of teaching, research, and innovation and technological development, has placed the FVL in the second position within all the faculties of veterinary of Spain in the last two years (http://www.u-ranking.es/en/construye.php).

Main Developments since the last Visitation

The FVL has experienced several changes since the last EAEVE visit in 2008, many of them in response to the recommendations made during this visit, which have been affected the organization, management, curriculum and new buildings and equipment.

Main Organizational and Management Changes

An Internal Quality Assurance System (SGIC) was implemented during the 2010/11 term. The major task of the SGIC is to support the Degree Committee in its activities related to the assessment of quality control for this degree. Originally, a Quality Control Committee and a Degree Committee were created separately. In 2016, both Committees were unified in a unique structure called the Quality Control Committee. The unification of these structures allows a more efficient approach towards ensuring the quality of academic standard as well as the student learning experience.

- This involved the creation of two new positions at the FVL, Quality Manager and Coordinator of the Veterinary Degree.

- A Four-Year Strategic Plan and an Establishment Operating Plan for the FVL were adopted in 2014. This plan ends in 2018.
- A Strategic Plan for the HVURC was approved in 2017.
- A Biosecurity Committee was created during the 2016/17 term in order to coordinate, review, approve and implement the general rules of Biosecurity applied to academic activities (teaching, investigation and assistance).
- The Bioethics Committees of the USC and the HVURC have been set up to help comply with the basic standards for the protection and welfare of animals used for experimental and other scientific purposes, including teaching.
- During the 2016/17 term, the USC promoted the merger of Departments. Currently at the FVL, 17 Departments have teaching assignments. Two of these Departments are located in the FVL (The Department of Anatomy, Animal Production and Veterinary Clinical Sciences; The Department of Animal Pathology).

More detailed information can be read elsewhere in this self-evaluation report.

Main Changes to the Study Programme

The specific conditions that must be included in the programmes, and the requirements for qualifications to practice as veterinarians are dictated by the Spanish Law.

The Veterinary Degree in the Spanish University System comprises 300 ECTS done in 5 years. Taking into account these specific conditions, the Royal Decree 96/2014 has recognized the Veterinary Degree as equivalent to a Master's level (Spanish Qualification Framework for Higher Education, MECES, level 3).

Accordingly, the curriculum of the FVL has been profoundly renovated, as per the EAEVE recommendations as well. The new curriculum was verified by the Spanish Agency for Quality Assessment and Accreditation (ANECA -ENQA member-) and was approved by the Spanish Council of Universities in 2010. This new degree programme was introduced during the academic 2010/2011 term. The accreditation for the Veterinary Degree of the FVL was renewed by the Agency for Quality of the Galician Universitary System (ACSUG -ENQA member-) and the Spanish Council of Universities in 2017 (http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/Memoria-Grado-en-Veterinaria_V7.pdf).

The main changes in the new curriculum include most of the suggestions from the last EAEVE report:

- Involvement of basic sciences in the teaching of animal behaviour and animal welfare.
- Significant increase of clinical training.
- Additional practical training and core subjects to meet the professional qualifications of official veterinarians in slaughterhouses.
- Inclusion of Zoonoses and Public Health as core subjects.
- Inclusion of a Graduation Thesis (TFG) to be presented by the student at the end of the Degree.
- Improvements in the FVL's virtual learning environment, supported by the use of technology, particularly Moodle.
- A systematic inclusion of problem-based learning in many clinical subjects.

Moreover, the curriculum has been carefully revised in order to allow for the acquisition of the ESEVT "Day One Skills", and the OIE recommendations on the Competences of graduating veterinarians ("Day 1 Graduates") to assure quality for the National Veterinary Services in accordance with the "One Health" philosophy.

New Buildings or Major Items of Equipment

Since the last visit, apart from the maintenance and renovation of teaching facilities (projectors, computers, laboratories, freezers...), numerous reforms were undertaken to adapt the spaces to the European Higher Education Area (EHEA) methods, to ameliorate the welfare of students, professors and administration staff, to raise biosecurity and to improve the building's energetic efficiency of the complex. They are summarized below.

- Several new small-group teaching/working rooms all equipped with a projection system and other services:

  - Aresa 1 room
  - Aresa 2 room
  - Classroom #8 (equipped with microscope and digital projection)
  - Galeno multipurpose room
  - XXV Anniversary multipurpose room
  - Norvet multipurpose room

- An integral remodeling of the necropsy room to adapt it to the biosecurity standards.
- New group working areas in the lecture building.
- Multiple electric charge units in the classrooms and working areas to facilitate the use of electric devices (laptops, tablets ...)
- Creation of a Clinical Skills Laboratory to provide opportunities for students to become more confident about a number of procedures, allowing them to take part in safe and consistent clinical skills training on models and mannequins.
- Three videoconference systems were incorporated.
- The Wi-Fi signal was reinforced in all the FVL buildings.
- Improvement of welfare conditions in the cafeteria area.
- Acquisition of lockers for students.
- New information and safety panels in all FVL buildings.
- A complete reform of the auditorium with a new audiovisual system, improved security lightning, a refurbished heating system, a new stage and the seats were complete repaired as well.
- Refurbishment of the Cremation Service with a new crematorium core and adaptation of the vehicle for the collection of carcasses (new lifting platform).
- A complete reform of the Research Animal Facility to adapt it to new regulations.
- A complete reform of the energy supply and heating infrastructure of all the FVL buildings (changing from gasoil to natural gas), and repair of the general water supply.
- Repairing of the cornices of the teaching building to improve its safety.
- A New Experimental Teaching Farm was designed and projected to be built during the 2017/18 term, as a result of an agreement between the Provincial Government of Lugo and the USC (2 million euros budget).
- The HVURC received considerable financial support for the acquisition of new devices and facilities, and a radical renewal in its infrastructures since the last Visit in 2008, to adapt it to new technologies and new work systems:

  - A new Helicoidally Computed Tomography and Nuclear Magnetic Resonance.
  - New digital radiology equipment, including remote control radiology table, portable radiological equipment, two mobile C-arm fluoroscopies, injection pump, etc …
  - Various high-tech ultrasound machines and a complete set of endoscopies.
  - Different anaesthesia equipment, multiparameter monitors, resuscitation trolley with defibrillator and new surgical table for large animals.
  - New pharmacy and clinical history management software

o A complete laboratory renovation
o New vehicles for the ambulatory clinic

- A new Veterinary Biomedicine Centre (CEBIOVET) has been created and new teaching and clinical facilities were built, improving the welfare of the animal, specially the cows (as required by the report of the last evaluation). These are the new areas created for teaching and clinical activities: new cattle barn, hospitalisation area of equines, propaedeutic room. It also includes a new isolation area and an area for the hospitalisation of wildlife animals.

Major Problems Encountered by the Establishment

During the last decade, Spain like most of the EU countries, has suffered a dramatic economic crisis, and the National and Regional Governments have reduced funding to public universities. The effect of these reductions has had a negative impact mainly on human resources. The policy and law as dictated by theses governing bodies has only allowed for an annual replacement rate of 10% for retired teachers (1 for each 10 retired). The situation was very difficult but in the last two years there has been an improvement that has permitted the promotion of new academic staff).

Version and Date of de ESEVT SOP which is Valid for the Visitation

ESEVT SOP 2016, reviewed on 02/05/2018 post ENQA visitation. This SER is a pilot document in full agreement with the standards of the SOP 2016 but applies a different template for annex 6.

STANDARD 1:
OBJECTIVES AND ORGANISATION

Standard 1: Objectives and Organisation

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

The main goal of the FVL is the creation of an innovative, accredited, professional curriculum that educates students in the broad field of veterinary medicine, encourages critical and analytical thinking and prepares students for life-long learning and professional growth. Graduates will be prepared to enter employment as entry level veterinarians in the private, public, or corporate sector, or to proceed into postgraduate training programmes.

The principles of veterinary education in FVL are established in accordance with the European Directive 2005/36/UE (amended in the Directive 2013/55/EU), current national legislation (Orden ECI/333/2008) and EAEVE recommendations.

The FVL aims to promote growth and excellence in research in order to improve the health of animals, assure the wholesomeness of food animal products and contribute to the understanding of basic mechanisms or animal models of disease.

The FVL also provides continuing education, extension services and consultation for veterinarians and civil organizations, government institutions and companies with specialized productivity at the local, regional and international levels.

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

The FVL of the USC is a centre of higher education whose mission is to improve health and animal welfare and public health through excellence in education, research, professional practice and service committed to society.

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

Name: Veterinary Faculty of Lugo.

University: University of Santiago de Compostela.

Address: Avenida Carballo Calero, s/n. 27002-Lugo, Spain.

- **Phone number:** +34 982822012.
- **Fax number:** +34 982822001.
- **E-mail address**: decafvet@usc.es
- **Website:** (http://www.usc.es/gl/centros/veterinaria/index.html)

Dean (Establishment's Head): Germán Santamarina Pernas, DVM, PhD.

Official authority overseeing the Establishment: Prof. Antonio López Díaz (Rector *Magnificus*).

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

Coordinator of the Veterinary Degree: Azucena Mora Gutiérrez, DVM, PhD.

HVURC Managing Director: Luis Felipe de la Cruz Palomino, DVM, PhD.

HVURC Clinical and Teaching Director: Antonio González Cantalapiedra, DVM, PhD.

1.5 The organisational structure must allow input not only from staff and students but also from external stakeholders.

The University of Santiago de Compostela (USC) is a Public University dependent on the Spanish Ministry of Education, Culture and Sport, and on the Government of the Autonomous Community of Galicia. Briefly, their 25 Faculties, 50 Departments and 5 attached schools offer more than 70 official Degrees, about 180 postgraduate courses, and more than 50 PhD programmes. Detailed information can be found in the website of the USC (http://www.usc.es/en/index.html).

Current Spanish legislation divides and defines the organization of the Universities into two entities with different specified functions:

- **Faculties and Schools:** Responsible for organizing teaching and supervising the correct development of teaching activities.
- **Academic Departments:** In charge of the coordination of the teaching of one or more knowledge areas in accordance with the teaching programme of the University and under the supervision of the Faculties within specific degrees.

The FVL is the only centre responsible for the teaching of the Degree in Veterinary Science in the Galician Autonomous Community. The Faculty organizes the Veterinary curriculum and assigns the teaching of the subjects to the Departments. The Faculty also supervises undergraduate teaching and implements the Quality Assessment Procedures.
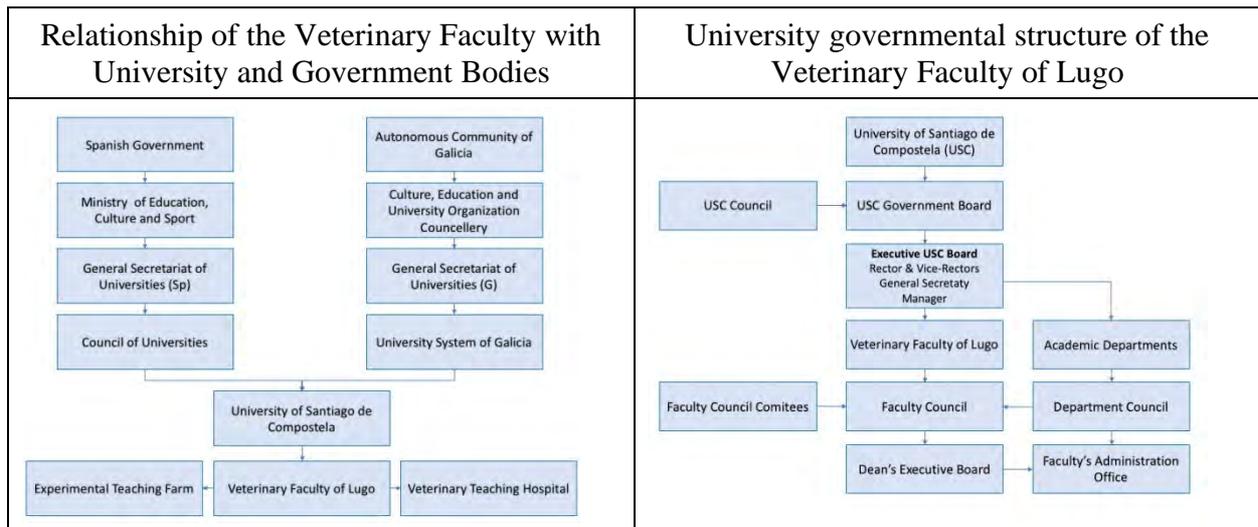
The FVL is governed primarily by the Statutes of the USC (2014) (http://www.usc.es/export9/sites/webinstitucional/gl/normativa/descargas/documentos/Estatutos_d a_Universidade_de_Santiago_de_Compostela_-_DECRETO_14-2014x_do_30_de_xaneirox_polo_que_se_aproban_os_estatutos_da_USC.pdf), and by its own Veterinary Faculty Regulations (2016) (http://www.usc.es/gl/centros/veterinaria/normativa/). The USC Statutes stipulate the composition, structure, and functions of the Governing Bodies of the Faculty as well as those of the administrative and general services of the USC itself.

The **Faculty Council** is the managing and governing body of the Establishment. It is composed of representatives from all levels of the Institution. According to the USC Statutes, the full members of the Faculty Council are: all the members of the Dean's Executive Board (Dean, Vice-Deans and Faculty Secretary), the head of the administrative unit, the director of the library and all the permanent Academic Staff (51%). The elected members include representatives of the hired teaching and research staff (10%); representatives of the undergraduate (25%) and postgraduate (7%) students; and representatives of the support staff (7%). This Faculty Council meets at least three times a year.

The Faculty Council is assisted by advisory **Faculty Committees**. They have no decision-making functions, except the Permanent Committee which deals with important issues that cannot wait for the Faculty Council meeting. Representation of all the Faculty collectives in the different Committees is guaranteed.

- **Permanent Committee:** its function is to deal with and expedite day-to-day matters in the name of the Faculty Council.
- **Quality Control Committee:** responsible for planning, development and monitoring of the Internal Quality Assurance System (SGIC). It also assumes the functions of the **Veterinary Degree Committee**, whose responsibilities include supervision of the curriculum, its periodic revisions and teaching quality assessment.
- **Biosecurity and Risk Prevention Committee:** Its function is to coordinate, review and approve the protocols of biosecurity and self-protection applied to the units where academic activities are carried out (teaching, research and assistance).

- **Economic Affairs, Facilities and Services Committee:** responsible for discussing the distribution of the Faculty budget, monitoring expenditures, and studying and providing reports on any proposal or need in the area of repairs, maintenance and infrastructure of the different units of the Complex.
- **Cultural Activities Committee:** It is in charge of promoting the cultural activities of the centre.
- **Gender Committee:** Created to ensure effective compliance with the principle of equal opportunities between men and women.
- **Galician Language Normalization Committee:** to promote activities aimed at promoting the use of the Galician Language in all activities at the Faculty.

Relationship of the Veterinary Faculty with University and Government Bodies	University governmental structure of the Veterinary Faculty of Lugo

The detailed composition of the Committees can be accessed through our website, Government section (http://www.usc.es/gl/centros/veterinaria/comisions_delegadas.html)

The **Dean's Executive Board** is composed by the dean, three vice-deans and a faculty secretary, and receives support from the members of the faculty's administrative office.

The Dean represents the Faculty and acts as Director and day-to-day Manager. The Dean is elected by the Faculty Council from the tenured academic staff of the Faculty for a four-year term. One re-election is possible.
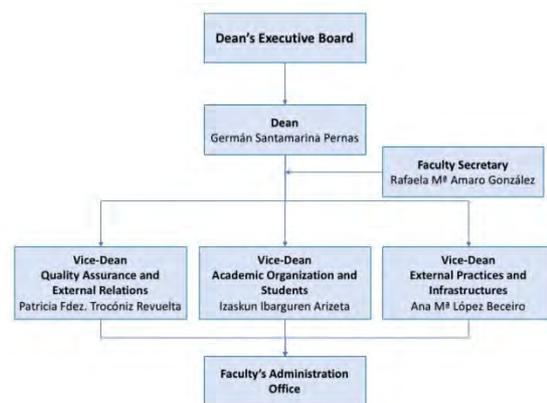
The Vice-deans and the Faculty secretary are nominated by the Dean for his/her term. The Vice Deans develop delegated functions related to specific areas of academic activity and the Faculty Secretary acts as notary for the proceedings, minutes and agreements of the collegiate bodies.

Academic Departments are basic organizational units that carry out the teaching duties assigned by the faculty, as well as undertake and provide support for activities, post-graduate studies, and initiatives of the teaching staff. The departments count on their human resources to deal with these activities and may request new academic positions at the university and propose the hiring of new teaching staff. They are made up of areas of scientific or technical knowledge, which are in charge of the teaching of the subjects that have been assigned to them. The Department Council is the governing body of each department. It is formed by all the academic PhD staff and a representation of the different collectives (other teaching and research figures, 10%;

undergraduate students, 10%; post-graduate students, 5%; and one representative of the support staff). The Director elected by the Council, acts as representative and carries out the functions assisted by the secretary.

At our Faculty, 17 Departments currently have teaching assignments. Two of these Departments are based in the Faculty and the other 15 are based in Santiago de Compostela (http://www.usc.es/gl/centros/veterinaria/departamentos.html).

Departments with teaching activity in the Faculty of Veterinary Medicine	
Analytical Chemistry, Nutrition and Bromatology	Microbiology and Parasitology
Anatomy, Animal Production and Veterinary Clinical Sciences (FVL)	Organic Chemistry
Animal Pathology (FVL)	Pharmacology, Pharmacy and Pharmaceutical Technology
Applied Physic	Physical Chemistry
Biochemistry and Molecular Biology	Physiology
Botany	Plant Production and Engineering Projects
Electronics and Computing	Statistics, Mathematical Analysis and Optimization
English and German Philology	Zoology, Genetics and Physical Anthropology
Forensic Sciences, Pathology, Gynecology and Obstetrics and Pediatrics	

The Veterinary Teaching Hospital (HVURC) is a General University Service and was founded to support teaching and research work at the FVL. The non-profit Rof Codina Fundation (FRC) sponsored its creation since 1994. It receives financing from the Galician Government (Galician Ministries of Education, Health, Agriculture and Environment), the USC, the Provincial Council of Lugo and the City Council of Lugo. The main goal of the HVURC is to continuously back and support clinical training at the FVL.

The Administrative and financial management of HVURC is independent of the faculty, but at the same time, both are strategically coordinated as per the agreement established by the FRC and the USC. The HVURC government body is the FRC Board, composed of representatives of all shareholders, that approves all the decisions affecting the HVURC management, including the annual budget.

The HVURC Executive Board includes an Executive Manager that is in charge of all entrepreneurial aspects (administration, finances, facilities, equipment, admission, etc.) and a Veterinary Director, who is elected among those teachers involved in clinical activities. His duties are to optimize the use of the clinical services with respect not only to the assistance provided for the general public, but also to the services used in teaching; in addition to carrying out a follow-up on all the teaching activities developed. Moreover, the Veterinary Director is responsible for implementing the faculty decisions affecting clinical teaching and thus is the link between the hospital management and the teaching bodies of the Faculty.

The HVURC is structured into different Clinical Services. All academic and technical staff must belong to a clinical service area which corresponds to their field of knowledge (Annex 1.5).

Experimental Teaching Farm. Although the FVL has many agreements with numerous private farms to guarantee the development of practical sessions in production and animal health issues, the new biosafety laws require more control and restriction of external access to farms. To solve the problem, a there exists since 1994 a long-standing agreement to use the Provincial Government farm *Granja Gayoso Castro* as a teaching and research farm.

This commitment has been reinforced with a new agreement signed in 2017 between the partners that involve the construction of a new Experimental Teaching Farm which is being built in the

same location as the old one. This ambitious project includes the construction of a building for the new dairy farm, acquisition of equipment and new animals, and development of a management plan so that more practical sessions of the FVL would be carried out there. This farm will include the most advanced technologies and the strictest of bio-security codes and animal welfare standards.

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

The SWOT analysis of the FVL (Annex 1.6.1) made prior to the drafting of the Strategic Plan, was carried out on the basis of its areas of competence and without considering those aspects that depend on other governing bodies or where the Faculty's influence is limited, if any. Without forgoing the idea of eventually taking them into account, at the moment, and in order to draft a feasible plan that can be undertaken and completed, it was decided not to address the provision of academic staff, the provision and organization of the support staff or the organization of teaching or research, since the Faculty does not directly make these decisions, which are first decide on by the corresponding Vice-Rectorships, the Management, the Departments or the research groups.

With these premises four major areas of interest were established: the strategic lines. Each key aspect of the analysis is part of one of them and translates into a concrete strategic objective which in turn will be further specified in several strategic actions.

It will constitute the 2014-18 Strategic Plan (summarized in the table below and available on the web) that will be implemented and verified according to a timeframe defined in the Faculty's long-term Plan and substantiated in the corresponding annual improvement plans. http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/Plano_Estratexico_Veterinaria_2014-18.pdf (Annex 1.6.2).

Strategic lines	Strategic objectives focuses on:
Educational Planning	- reviewing the types of training activities *vs* those defined in the SOP - adjusting student/teacher ratio - definition of competences - enhancing schedules planning
Development of teaching activities	- coordination of the teaching activity - improvement of mobility programmes and extramural practice management - orientation to students and attention to people with special needs - increase the use of ICT
Management, material resources and general services	- adaptation of management processes and administrative staff to the new demands - design of new work spaces - implementation of self-protection and risk prevention plan - articulation of the complaints and suggestions management procedures
Public Information	- maintenance of public access to relevant and updated information

Establishment Operating Plan. As indicated above, the implementation and verification of the 2014-18 Strategic Plan will be carried out in accordance with a schedule defined by the Faculty's long-term Plan. To this end, annual improvement plans are established that define the proposed improvement actions to achieve the objectives pursued.

Our Quality Policy contemplates the preparation of an annual monitoring report that allows the assessment of compliance with the established project for the curriculum in the considered academic term and the results obtained, facilitates the detection of good practices, deviations and decision making. It is structured in 7 criteria, and also includes a series of evidences and

indicators, any minor modification made in the curriculum and the verification of the improvement plan for the affected academic course:

- University data and the title subject to monitoring
- Fulfilment of the established project

  o Criterion 1. Organization and development
  o Criterion 2. Information and transparency
  o Criterion 3. Quality assurance system
  o Criterion 4. Human Resources
  o Criterion 5. Material resources and services
  o Criterion 6. Learning outcomes
  o Criterion 7. Satisfaction and performance indicators

- List of evidences and indicators
- Modifications to the curriculum
- Improvement Plan Completed for the (current) course 20xx-20xx

An essential part of the annual monitoring report implies the verification of the degree of compliance with the committed plan of action and the achievement of the goals (efficiency indicators).

The Improvement Plans from 2011-12 until 2016-17 are available in our website Quality section: http://www.usc.es/gl/centros/veterinaria/calidade.html

The Annual monitoring reports 2011-12 until 2016-17 are available in our website Quality>Degree section (the 2015-16 has been included in the accreditation renewal report): http://www.usc.es/gl/centros/veterinaria/titulodegrao.html

The organization of the Establishment is defined in Chapter 3 of the SGIC, which establishes the composition and functions of the Dean's executive board and the Quality Control Committee, as well as the figures of the quality manager and the degree coordinator. http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/MANUAL_SGIC_FacVet_FINAL.pdf.

The Quality Control Committee consists of a series of ex-officio members and others elected by representation:

- The Dean
- The Quality Manager
- The Coordinator of the Veterinary Degree
- 1 member of the technical staff, preferably the faculty Manager
- 1 student (preferably student-tutor)
- Other members of the Faculty Board (elected).

The detailed composition can be accessed through our website, Government section (http://www.usc.es/gl/centros/veterinaria/comisions/titulacions.html)

The strategic planning process PE-01 included in our SGIC outlines how to define, develop, disseminate and review the Strategic Plan of the faculty, with the purpose of permanently serving the needs and legitimate expectations of the stakeholders:

The Quality Control Committee is responsible for preparing an initial document based on the execution of the corresponding SWOT analysis that will serve as the basis for the successive contributions. After having working sessions with the different interest groups (departments, students, technical staff, etc.), all the contributions are integrated into a single document that is subject to public notification and display. During this period, any member of the university community can make comments and suggestions that are analysed by the Quality Control

Committee to draw up the final document of the Strategic Plan. This is sent to the Vice-rectorate responsible for quality control for review and submission to the Governing Council of the University who must also approve it.

The 2014-18 Strategic Plan is available on the website, Quality section: http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/Plano_Estratexico_Veterinaria_2014-18.pdf

The Strategic Plan is implemented in accordance with what is established in the derived improvement plans and as established by the Faculty's long-term Plan. It is verified and reviewed each year as part of the quality policy, and the result is included in the Annual Quality Report. All these documents are accessible on the web in the quality section (http://www.usc.es/gl/centros/veterinaria/calidade.html).

Comments on Standard 1

SGIC implementation has led to an improvement in the organisational structure and operation of the establishment, with the creation of new committees better adapted to the needs of the EHEA.

The SWOT analysis carried out for the design and implementation of the strategic plan, has been shown as a valuable tool to contextualize the situation of the establishment to improve the mentioned organization; for example, the merge of the Degree and Quality Control Committees into a one committee to improve efficiency.

Suggestions for improvement on Standard 1

As has just been said, since the start-up of the SGIC and the strategic plan, a substantial organizational improvement has been achieved, which is what we are allowed to do at this time, as per our current regulations.

STANDARD 2:
FINANCES

Standard 2: Finances

2.1 Finances must be demonstrably adequate to sustain the requirements for the Establishment to meet its mission and to achieve its objectives for education, research and services.

Public Universities in Spain are under strict rules for their finances. The legal frame of the overall financial protocol for them is defined by University Organic laws 6/2001 and 4/2007, which state that "*Public universities will have economic and financial autonomy under the terms established in this Law. For that purpose, it will be guaranteed that universities have the necessary resources for a basic quality operation*". To achieve this goal the different legal bodies "*...will draw up a reference model of costs that will enable the public authorities to establish adequate funding for public universities ...to promote their full participation in the European Higher Education Space*".

The budget of the USC is annual, per calendar year (from January 1st to December 31st), and is prepared by the USC Government Board under the guidelines set by the USC Council and with the final supervision of the USC Social Council.

Table 2.1.1 Global expenses and incomes of the USC during the last 3 academic years (€)

USC	2017	2016	2015	Mean
Total expenditures	239,224,083.98	236,039,440.43	232,181,401.24	235,814,975.22
Total revenues	234,212,443.51	239,377,276.19	231,234,905.68	234,941,541.79

Detailed expenses and incomes of the USC for the last 3 years can be consulted in Annex 2.1.

From these general budgets the University manages and directly pays the most important areas of expenditure of all the Faculties and Departments, namely staff costs, services and work contracted out to external companies, maintenance services, waste collection and others.

The percentage of overhead to be paid to the official authority overseeing the Establishment on revenues from services and research grants is 20%, the rest is assigned to the FVL or Coordinator of the research project/Service, either for a specific use or to manage as they deem fit.

Regarding the annual tuition fee for national and international students, there are no full fee students in our system. The Spanish model of university funding is decentralized by the Autonomous Communities, where the university education is essentially public and covers most of the total cost. The remaining amount constitutes the tuition fee of the so-called "standard student".

The cost of each ECTS is annually established by the Autonomous Community of Galicia and depends on experimental grading and the times the student has been previously enrolled in a subject. The Degree in Veterinary has the maximum experimental grading (level 1).

Table 2.1.2 Annual tuition fee for the Veterinary Degree:

1st enrolment	2nd enrolment	3rd enrolment	4th and successive enrolments
13.93 €/ECTS	19.30 €/ECTS	31.21 €/ECTS	39.79 €/ECTS

The income received from the tuition fees of all the faculties, including the FVL, is directly managed by the central services of the USC.

2.2 The finance report must include both expenditures and revenues and must separate personnel costs, operating costs, maintenance costs and equipment.

As was said, the University manages and pays directly the most important areas of expenditure. The Faculties and Departments only receive annual funds from the USC in order to cover the

operating costs and equipment specifically related to teaching, and some specific maintenance costs.

The description of the global financial process presented here is based on the official model of analytical accounting adopted by the USC, under the supervision of the Ministry of Education, Culture and Sports, that is published annually (http://www.usc.es/gl/goberno/xerencia/contabilidadeanalitica).

The main purpose of Analytical Accounting is to track expense and revenue accounts by categories in order to derive profit and loss by activity, this, in turn, allows for efficiency and effectiveness in its management. The global expenses directly imputed to the FVL are the following:

Table 2.2.1 Analytical Accounting of the FVL: Annual expenditures in the last 3 academic years (€)

Area of expenditure FVL	2017	2016	2015	Mean
Personnel	7,150,040.80	6,884,846.21	6,865,410.04	6,966,765.68
Academic Staff	4,668,576.28	4,476,796.78	4,475,645.87	4,540,339.64
Support Staff	811,653.11	792,801.47	812,076.74	805,510.44
Research Staff	1,519,606.97	1,462,114.92	1,418,268.38	1,442,663.42
Other expenses associated with the cost of personnel (Other Social costs, indemnities…)	150,204.44	153,133.04	159,419.05	154,252.18
Operating and Maintenance costs	1,884,721.53	2,338,273.08	1,680,618.35	1,967,870.99
Acquisition of goods and services	895,369.39	585,023.31	737,962.71	739,451.80
External services (Maintenance works, water, electricity, gas, security, cleaning, gardening…)	989,352.14	1,753,249.77	942,655.64	1,228,419.18
Equipment	446,000.78	385,459.34	478,136.00	436,532.04
Tax cost	5,451.52	131,278.65	17,694.46	51,474.88
Transfer cost	198,493.91	198,384.7	411,490.33	269,456.31
Total expenditure	9,684,708.54	9,938,241.98	9,453,349.18	9,692,099.90

Revenues directly attributed to FVL activity are shown in the following tables:

Table 2.2.2 Analytical Accounting of the FVL: Annual revenues during the last 3 academic years (€)

Revenues source	2017	2016	2015	Mean
Tuition fee (standard students, continuing education...)	600,563.12	586,115.74	590,580.85	592,419.90
Research grants, Diagnostic services and other services	2,046,125.36	2,159,118.60	2,907,218.74	2,370,820.9
Total revenues	2,646,688.48	2,745,234.34	3,497,799.59	2,963,240.80

Table 2.2.3 Annual balance between expenditures and revenues of the FVL (€)

Academic Year	Total Expenditures	Total Revenues	Expenses paid by USC*	Balance
2015	9,453,349.18	3,497,799.59	5,955,549.59	0
2016	9,938,242.04	2,745,234.34	7,193,007.70	0
2017	9,684,708.54	2,646,688.48	7,038,020.06	0

*The difference in the balance between expenses and income of all the faculties are covered by the central services of the USC which directly pay the most important areas of expenditure of all the faculties, namely staff costs, services and work contracted out to external companies, maintenance services, waste collection and others.

The annual budgets managed directly by the faculties (in order to cover the operating costs and equipment related specifically to teaching, and some specific maintenance costs) are assigned from the general USC budget according to the following criteria and percentages defined below.

1. General assignment: 80% of the total amount to be distributed among the faculties:

a) 35.0% based on the number of teachers

b) 24.5% based on the ECTS enrolled

c) 10.5% based on teaching hours taught

d) 12.0% based on the number of students

e) 18.0% based on the constructed area

2. Assignment corresponding to the practical teaching of subjects that, by their nature, suppose an additional expense for the centres: 20% of the total amount to distribute.

Table 2.2.4 Annual budget directly managed by the FVL (€):

Area of expenditure	2017	2016	2015	Mean
Operating Costs	53,517.90	37,435.41	34,135.00	41,696.10
Maintenance cost	25,053.34	10,423.19	11,304.25	15,593.59
Equipment	94,836.69	70,125.30	36,291.58	67,084.52
Total	173,407.93	117,983.90	81,730.83	124,374.22

The Departments receive a separate annual appropriation to cover their operating costs. The amount allocated to the Departments based in the FVL during 2017 was as follows:

- Department of Anatomy, Animal Production and Veterinary Clinical Sciences 1,767.26 €
- Department of Animal Pathology 1,275.71 €

HVURC as a Foundation, has its own and independent financing. It receives financing from the Galician Government (Galician Ministries of Education, Health, Agriculture and Environment), the USC, the Provincial Council of Lugo and the City Council of Lugo. The Rof Codina Foundation Board is the government body that approves all the decisions affecting the HVURC management, including the annual budget.

Table 2.2.5 Annual expenditures of the HVURC during the last 3 academic years (€)

Area of expenditure	2017	2016	2015	Mean
Personnel	887,183.39	847,982.21	893,266.23	876,143.94
Academic Staff	580,290.71	552,868.62	613,372.46	582,177.26
Support Staff	306,892.68	295,113.59	279,893.77	293,966.68
Operating costs	761,460.15	629,420.52	634,534.19	675,138.29
Maintenance costs	667,883.33	609,471.22	2,740,519.77	1,339,291.44
Equipment	743,111.25	13,528.86	593,720.98	450,120.33
Total expenditure	3,059,638.12	2,100,402.81	4,862,041.17	3,340,694.03

Table 2.2.6 Annual Revenues of the HVURC during the last 3 academic years (€)

Revenues source	2017	2016	2015	Mean
Public authorities	1,847,108.13	1,250,201.28	4,159,142.04	2,418,817.15
Clinical services	441,098.80	391,300.36	442,076.75	424,825.30
Diagnostic services	239,829.42	225,416.70	205,838.12	223,694.75
Other services	0.00	0.00	0.00	0.00
Research grants	90,093.88	90,549.21	31,179.42	70,607.50
Continuing Education	41,677.14	22,959.94	0.00	21,545.69

Revenues source	2017	2016	2015	Mean
Donations	12,500.00	12,500.00	12,500.00	12,500.00
Other sources*	1,785.96	2,901.11	1,715.64	2,134.24
Total revenues	2,674,093.33	1,995,828.60	4,852,451.98	3,174,124.64

2.3 Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations. Clinics must be run as efficiently as possible.

The main goal of the HVURC is the clinical training of students. Even though the HVURC has set market prices for their clinical and field services, in order to avoid unfair competition, free services are offered to non-profit entities, such as animal shelters, to ensure enough clinical cases for training purposes.

Although public authorities are the main source of income for the HVURC (see table 2.2.6), the teaching hospital is being managed to achieve the greatest possible efficiency in the supervision of its resources.

On the other hand, the transport necessary for field practices, other than those coordinated by the HVURC, is always guaranteed. Each semester an estimate of the transport expenses is made based on the teaching needs and are paid by the Vice-Rectorate.

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

The USC Infrastructure Area is in charge of the maintenance and repair of the University buildings, but also receives annual reports on the needs from each centre. The Infrastructure Area meets annually with the university manager to study the needs of each Faculty and establish a three-year implementation plan. Each year the actions planned are included in the general budget of the USC.

Table 2.4.1 Prospected Investments in the FVL for the next 3 academic years (€)

Prospected Investments	€
Repair of Cornices (phase 3): CT and Security stations	36,000
Repair of Cornices (phase 4): Auditorium	102,000
Repair of Cornices (phase 5): central pavilion	108,000
Reform of the Necropsy Room	132,434
Reform of the Necropsy Room (phase 2)	84,939
Repair and renovation of the roof skylight 1	110,000
Repair and renovation of the roof skylight 2	110,000
Repair and renovation of the roof skylight 3	220,000
Renewal of the air conditioning system and roofs (Stage 1)	182,000
Renewal of the air conditioning system and roofs (Phase 2)	291,430
Renewal of the air conditioning system and roofs (Stage 3)	213,815
Air conditioner reading room central pavilion	10,000
Adaptation of the electricity installation by technical inspection	45,000
Adequacy of biological and effluent casks in the sewage treatment plant	25,000
Air conditioning conducts of the new classrooms in the central pavilion	4,906

The allocation of resources of the HVURC is independent from the Faculty and is managed by the Rof Codina Foundation Board that approves the decisions affecting the HVURC management, including the annual budget. The hospital has received considerable financial support for the

acquisition of new devices and facilities, and a very radical change in its infrastructures occurred in the last 3 years and guarantees proper functioning in the near future (see Introduction).

2.5 The Establishment must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.

From the general budget, the USC manages and directly pays the most important areas of expenditure of all the Faculties and Departments.

Annually, the FVL receives specific funds oriented to cover the operating costs and equipment related specifically to teaching, and some specific maintenance costs. This annual fund is used to implement the strategic plan and achieve ESEVT standards in those aspects that the general budget does not cover. In general, these funds are sufficient for the normal operation of the faculty, considering that the HVURC has an independent financing process guaranteed by the participation of its official shareholders.

The Economic Affairs, Facilities and Services Committee is responsible for discussing the distribution of the annual budget managed directly by the Faculty, monitoring expenditures, and studying and providing reports on any proposal or need in the area or repairs, maintenance and infrastructure of the different units of the Centre. The reports prepared by this committee are finally submitted to the Faculty Council, who subsequently approves the budget to be implemented and communicated to staff and students.

Any expenditure that exceeds the ordinary budget must be requested extraordinarily from the USC central services office. A prioritized proposal of investments needed by the FVL is sent to the USC Infrastructure Area on an annual basis. Final decisions on what to include in the implementation plan are taken after the evaluation of the requests from all the centres depending on budget availability.

Comments on Standard 2

Education in Veterinary Medicine is by far the most expensive worldwide, since it has become increasingly sophisticated over the years, especially in the last two decades. Thus, education in this field requires very expensive equipment and plenty of resources. However, this reality is seldom recognized by governments, university rectorates, and counterparts responsible for other fields of education. This situation is rather common everywhere.

Overall financial protocol for the FVL is legally defined and has its positive aspects such as the centralized payment of salaries or all general maintenance and operational expenses. On the contrary, the Faculty manages a limited budget that can restrict the capacity of action in many cases. Nevertheless, any expenditure that exceeds the ordinary budget is usually covered by USC central services office upon request (*i.e.* transport for FVL field practices which is the largest allocation among all the faculties).

HVURC has an independent financing process with great support from public institutions that guarantees its proper functioning. In fact, despite the financial crisis of the last decade, it was able to undertake projects that provided important improvements for its facilities.

Suggestions for improvement on Standard 2

A more flexible and simpler USC budget plan would be desirable.

It should intensify efforts to attract sponsors, in particular by increasing the interaction with private veterinary companies.

STANDARD 3: CURRICULUM

Standard 3. Curriculum

3.1. The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC as amended by directive 2013/55/EU and its Annex V.4.1.

Educational aims of the Establishment and the general strategy for the design, resources and management of the curriculum. The main objective of the Veterinary Science Degree offered at the FVL is that students acquire detailed knowledge in the different areas of the veterinary profession. To this end, the FVL has designed the curriculum, continuously assesses it to ensure that the objectives are met and provides sufficient resources (as can be seen in the corresponding chapters).

The curriculum is fully compliant with the EU Directive 2005/36/EC, as reflected in to the Spanish legislation by RD 1837/2008, which regulates veterinary studies in the European Union. This legislation requires the curriculum to be carried out for a minimum of 5 years, with a series of compulsory subjects for the three professional profiles -Medicine and Health, Animal Production and Economics, and Food Hygiene and Food Technology-. Since the implementation of the Degree, the EU Directive 2005/36/EC has been slightly amended by Directive 2013/55/EU; however, this has not required any specific changes in the initial design of the curriculum.

The curriculum was developed based on a list of **Competences** which are divided into 3 categories: General, Specific and Transversal competences. These correlated with the list of Day One Competences and knowledge and understanding requirements defined by the EAEVE (Appendix 2B). With these Competences, the main educational purpose of the curriculum is to ensure students reach a competent level of knowledge and skills in all the fields of the veterinary profession.

The Degree of the FVL comprises 300 ECTS distributed as follows:

Achievement of knowledge and related skills in **Veterinary Basic Sciences**	93 ECTS
Achievement of knowledge and **Clinical and Sanitary** skills	109,5 ECTS
Achievement of knowledge and skills in **Animal Production**	31,5 ECTS
Achievement of knowledge and skills in Food Technology, Food Hygiene and Food Safety	24 ECTS
External Practical Training (EPT) including Hospital Rotation that bring students to the reality of the professional practice	24 ECTS
Achievement of knowledge and skills in other fields of the veterinary profession through **Elective subjects**	12 ECTS
Progressive achievement of basic review, research and communication skills that culminate in the **Graduation Thesis (TFG)**	6 ECTS

The Curriculum is organized in subjects with a minimum of 3 and maximum of 10 ECTS grouped into content modules as can be seen on the website (http://www.usc.es/es/centros/veterinaria/programas.html?plan=14105). Each subject is restricted to a semester with a total of five academic years (10 semesters). The EPT, Hospital Rotation and TFG are offered in the 10th semester, and again in the 11th semester. This extra-semester allows students who do not meet the prerequisites needed to enrol in these subjects in the 10th semester (maximum of ECTS left to finish the degree) to not delay their graduation.

The teaching strategy includes different methodologies such as lectures, blackboard practice, seminars, tutorials, problem-based learning and evidence based medicine, laboratory, computer and field practices, non-clinical animal work and clinical animal work. The size of the groups is:

- Lectures and Blackboard practices: around 100 students/group;
- Seminars: 30 students/group;
- Tutorials: 10 students/group;

- Laboratory practices, field practices and computer practices: 20 students /group, which are reduced to 10 students/group in those subjects with sufficient teaching capacity through the creation of additional groups;
- Clinical animal work and non-clinical work: 7-10 students/group.

For each subject, there is a syllabus available on the main website for the Degree which includes all the information related to the development of the subject: theoretical and practical programme, a list of competency-based learning outcomes and teaching and assessment methods. The students always have the updated syllabus available before the enrolment period. (http://www.usc.es/en/centros/veterinaria/programas.html?plan=14105).

Legal constraints imposed on curriculum by national/regional legislations. The current Spanish legislation considers the veterinary profession as a regulated profession whose practice requires the obtention of the corresponding official degree. In that sense, the Royal Decree 1393/2007 modified by RD 861/2010, declares that the Ministry of Education and Science must specify the contents that have to be fulfilled by the curricula to obtain an official degree that allows a person to practice regulated professions.

In that sense, the ECI/333/2008 Order establishes the requirements for the study plans leading to the Degree in Veterinary of the of the University of Santiago de Compostela were designed accordingly and obtained positive Verification from the Ministry of Education on July 2nd, 2010 to comply with the provisions of the above mentioned Royal Decree 1393/2007. The whole curriculum, including the Internal Quality Assurance System (SGIC) of the FVL, was recently evaluated by ACSUG and its accreditation was renewed (11/07/17). (http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/Memoria-Grado-en-Veterinaria_V7.pdf).

R.D. 1393/2007 also establishes that modifications to curricula must be approved by the universities in accordance with their statutes or regulations and, when appropriate, in accordance with the regulations issued by the Autonomous Community.

Concerning the **degree of autonomy that the Establishment has to change the curriculum**, the proposals to modify the curricula must be the result of the monitoring process and, therefore, be the natural and expected result of said process. Hence, each official degree can only be submitted to the modification process, at most, once every academic year.

Possible changes to university degree programmes can be classified based upon their type:

- Non-substantial changes are those minor changes that improve the curriculum and the university can implement as a result of the monitoring process. These changes are reflected in monitoring reports and incorporated into the curriculum when it has to undergo a process of modification.
- Substantial modifications: those changes in the curriculum that entail modifications in its structure or in its nature and objectives. They can be classified into two types:
  - Authorized: those changes that affect the structure of the degree programme but that do not involve a change in its nature or objectives. These changes are requested by way of the modification process.
  - Unauthorized: those substantial changes that affect the nature and objectives of the curriculum and cannot be requested through the modification process. These changes can only be made effective by requesting the verification of a new curriculum and extinguishing the previously implanted one.

Since the beginning of the Veterinary Degree (academic year 2010/2011) to the accreditation renewal (2017), the curriculum has been in a set up period, with several non-substantial changes in the content or structure (Annex 3.1). The Quality Control Committee (QCC) of the FVL is responsible for gathering the necessary information to promote any type of modification of the curriculum: whether substantial or non-substantial.

To identify and correct the **curricular overlaps, redundancies, omissions and lack of consistency**, the Degree has the following mechanisms of teaching coordination:

- Coordination of the semester activity (1st to 9th semester) is done up by the Semester Coordination Working Group (GTCS) which includes by the following members: Vice-Dean for Academic Organization and Students, Degree Coordinator, Semester Coordinators, Subject Coordinators and 2 representatives of students for each course. The role of students in this process is very important. There is no one else who can better identify overlaps or redundancies and their presence in this committee is crucial to properly monitoring the system. As a last step, the final reports issued are submitted to the Quality Control Committee.

The GTCS is responsible for:

- Schedule elaboration of each academic course.
- Supervision of the subject syllabi, previously approved by the Departments, to detect potential deviations, gaps and redundancies. Any detected mismatch will be communicated for correction. Both schedules and syllabi pass an ultimate review by the Quality Control Committee and are then sent to be approved by the Faculty Council.
- Analysing the reports prepared in relation to the activity developed every semester to assess the degree of compliance with the provisions made in the syllabus.
- Reviewing all the incidents that may have occurred in the coordination of the different training activities and propose corrective measures for the next academic year.

- Coordination of EPT and Hospital Rotation: there are specific coordinators for the three subjects included. Despite its multidisciplinary nature, the figure of the coordinator is key in order to solve all the issues related to its development, carry out the dialogue with professional tutors and coordinate the unified criterion for the preparation as well as the assessment of the reports that the students must write about the work done. (http://www.usc.es/gl/centros/veterinaria/practicas_tuteladas.html).
- Coordination of Elective External Practical training: there is a specific professor designated for this purpose (http://www.usc.es/gl/centros/veterinaria/practicas_externas.html).
- Coordination of the TFG: there is a specific committee, in which students participate, that organizes and coordinates all the activity related to this subject (http://www.usc.es/gl/centros/veterinaria/traballofindegrado.html).

3.2. The learning outcomes for the programme must be explicitly articulated to form a cohesive framework.

The Curriculum describes **the strategy followed to form a cohesive framework and achieve the learning outcomes** that can be summarized in the main objectives of the curriculum:

- Hygiene control, inspection and technology for the production and processing of food for human consumption, from primary production to the consumer.
- The prevention, diagnosis and individual or collective treatment, as well as the fight against animal diseases, be considered individually or in groups, particularly in the case of zoonoses.
- The control of the breeding, handling, welfare, reproduction, protection, and feeding of the animals, as well as the improvement of their productions.
- The obtaining, in excellent and economically profitable conditions, of products of animal origin and the assessment of their environmental impact.
- Knowledge and application of legal, regulatory and administrative provisions in all areas of the veterinary profession and public health, understanding the ethical implications of health in a changing global context.
- Development of professional practice with respect to other health professionals, acquiring skills related to teamwork, efficient use of resources and quality management.
- Identification of emerging risks in all areas of the veterinary profession.

As noted in section 3.1, the curriculum is organized around a set of competencies and the learning outcomes associated with them that students must acquire. Many of these competences are specific and refer to the acquisition of knowledge and the development of skills related to the veterinary profession, but the fact that students must acquire other knowledge and more general skills (general and transversal competences) is also contemplated.

The subjects are distributed throughout the curriculum in such a way that students acquire the competences and learning outcomes planned progressively. In compliance with ECI/ ORDER 333/2008, the curriculum is organized in 5 content modules: 1) Common Basic Training; 2) Clinical Sciences and Animal Health; 3) Animal Production; 4) Food Hygiene, Food Technology and Food Safety; 5) External Practical Training and Graduation Thesis. In the subjects included in each module, the specific competences and associated learning outcomes are worked on, while the generic and transversal competencies are addressed by certain subjects in the different modules.

3.3. Programme learning outcomes must be communicated to staff and students and:
-) underpin and ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme;
-) form the basis for explicit statements of the objectives and learning outcomes of individual units of study;
-) be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.

Design, communication, evaluation and review of the learning outcomes: both the competences and the learning outcomes are defined in the curriculum as stated in 3.2. The relationship between the competences, the learning outcomes and how they are achieved is defined at subject level and described in detail in the syllabus of each individual subject. On an annual basis, syllabi are reviewed, discussed and finally approved by the Department Councils and lastly by the Faculty Council. In fact, Syllabi can be considered as "formal contracts" between both academics and students which serve as a reference for the implementation and monitoring of the learning process. As already indicated, at the end of the activity for each semester, GTCS analyses how the syllabus has been fulfilled and if the specified competences have been acquired. A special follow-up of the Day One Skills is carried out as well. Moreover, they verify if all the designated competencies for a subject have been developed, or if an adjustment should be done.

3.4. The Establishment must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. *The committee(s) must:*
-) determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum,
-) oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes,
-) review the curriculum at least every seven years by involving staff, students and stakeholders,
-) identify and meet training needs for all types of staff, maintaining and enhancing their competence for the on-going curriculum development.

Design and communication of the curriculum. As indicated in the Introduction, since the last EAEVE visit in 2008, the curriculum of the FVL has been completely renovated. The new curriculum was developed in accordance with new legislation, the EAEVE recommendations and the Spanish White Book of the Veterinary Degree elaborated by the Conference of Deans of the Veterinary Faculties in Spain (http://www.aneca.es/var/media/150400/libroblanco_jun05_veterinaria.pdf).

With this purpose, the Faculty Council appointed a specific committee for the design of the curriculum, ratified by the Rector, formed by professors representing the 5 content modules, student body representatives and the person responsible for the Administrative Unit participate in it. The procedure established by the USC was followed. This procedure guarantees the participation of various stakeholders, such as the Official Veterinary Colleges of Galicia and professional associations, as well as periods of public notification and display and presentation of amendments. The specific procedure is fully described in the SGIC, Chapter 5, P01-PC-01 (Appendix IV).

Implementation, evaluation and review of the curriculum Since its implementation in the academic year 2010-11, the curriculum is subject to a continuous evaluation for which the QCC is responsible (see 3.1), and in which the student body is represented. Every year the QCC receive the inputs from different sources (GCTS, graduated students, EPT and Hospital Rotation tutors and students, administrative staff, etc.) analyses the validity of the curriculum to compile the annual Monitoring Report (see 11.1), and if necessary, improvement actions are proposed to be applied during the next academic term. Among these improvement actions training courses for teachers are organized every year. Administrative staff has its own formative programme stipulated by the Management of the USC.

As a consequence of this analysis, some minor modifications and improvements have been made. Thus, the distribution of the competences and the hours dedicated to the different training activities has been reorganized. In addition, the 6 ECTS elective subject "External Practical Training" have been incorporated (Annex 3.1). To channel any new modification proposal, there is a procedure that is described in the SGIC (Chapter 5, PM-01), which must be further approved by the Faculty Council; the full process has already been indicated in 3.1.

The original Curriculum and all approved changes are available at: (http://www.usc.es/export9/sites/webinstitucional/gl/centros/veterinaria/descargas/Memoria-Grado-en-Veterinaria_V7.pdf).

This monitoring is carried out to ensure that the degree programme continues to be effective an up-to-date and to guarantee the renewal of its accreditation (every seven years as mandatory by law: Royal Decree 967/2014).

3.5. The curriculum must include the subjects (input) listed in Annex V of EU Directive 2005/36/EC and must allow the acquisition of the Day One Competences (output) (see Annex 2 of the SOP).
This must concern all groups of subjects, i.e.:
-) Basic Sciences; -) Clinical Sciences; -) Animal Production; -) Food Safety and Quality;
-) Professional Knowledge.

Table 3.5.1 Curriculum hours in each academic year taken by each student

Academic years	A	B	C	D	E	F	G	H
1 (1st & 2nd semester)	337	21	123	159	85	0	92	817
2 (3rd & 4th semester)	274	9	82	183	56	6	90	700
3 (5th & 6th semester)	339	30	162.5	41.5	0	195.5	60	828.5
4 (7th & 8th semester)	325	29	152	81	0	107	92.5	786.5
5 (9th & 10h semester)	129	12	179	10	225	366.5	137	1058.5

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work, E: non-clinical animal work; F: clinical animal work; G: others (tutorials, blackboard practices, field visits, report writing, students' exposition and assessment); H: total

Table 3.5.2 Curriculum hours in EU-listed subjects taken by each student

FVL Curriculum subjects	A	B	C	D	E	F	G	H
Basic subjects								137
Medical physics	6	1	4	7			2.5	20.5
Chemistry (inorganic and organic sections)	7		4	7			5.5	23.5
Animal biology, zoology and cell biology	7		4	8			3.5	22.5
Feed plant biology and toxic plants	6		4	6			2.5	18.5
Biomedical statistics	26	4	12	6			4	52
Basic Sciences								1,357
Anatomy, histology and embryology	128		22	50	80		19.5	299.5
Physiology	44		37.5	46			31	158.5
Biochemistry	60		16.5	26			18.5	121
General and molecular genetics	35	14		10			4	63
Pharmacology, pharmacy and pharmacotherapy	60		17	21		6	42	146
Pathology	33	3	15	16.5		4.5	5	77
Toxicology	42		18	25			21.5	106.5
Parasitology	35	4	3	20			4	66
Microbiology	45		3	20			15	83
Immunology	20	2	7	6			4	39
Epidemiology	25		18	8			3	54
Communication skills				3			5.5	8.5
Professional ethics	2			3			0.5	5.5
Animal ethology	4		7.5				3	14.5
Animal welfare	11		4.5	3	11		8.5	38
Animal nutrition	24		12	35			6	77
Clinical Sciences								1,557.5
Obstetrics, reproduction and reproductive disorders	75	4	49	5	4	38	16.5	191.5
Diagnostic pathology	85	5	24	12		43	11	180
Medicine and surgery including anaesthesiology	162	1	10.5			116	31	320.5
Clinical practical training in all common domestic animal species			2.5			316.5	2	319
Preventive medicine	25	2	9			8	4	53
Diagnostic imaging	35		17			30	8	90
State veterinary services and public health	33	4	19	1	191*	17	3	268
Veterinary legislation, forensic medicine and certification	8			1			2	11
Therapy in all common domestic animal species						19.5		19.5
Propaedeutic of all common domestic animal species	22	2	40			35	6	105
Animal Production								505.5
Animal Production and breeding	54		53	25	32		19	183
Economics	7						2	9

FVL Curriculum subjects	A	B	C	D	E	F	G	H
Animal husbandry	18		6	20	6		4.5	54.5
Herd health management	125	17	39			58	20	259
Food Safety and Quality								464
Inspection and control of food and feed	25	5	23	3			7	63
Food hygiene and food microbiology	17	10	14	17			5	63
Practical work in places for slaughtering and food processing plants			2		191*+ 27			220
Food technology including analytical chemistry	44	18	27	22			7	118
Professional Knowledge								372.5
Professional ethics &behaviour							12	12
Veterinary legislation	38	5	6	20	3		18.5	90.5
Veterinary certification and report writing	4		23.5				13	40.5
Professional communication			63.5				34	97.5
Practice management & business	7			29			11	47
Information literacy & data management			63.5				21.5	85

A: lectures; B: seminars; C: supervised self-learning; D: laboratory and desk-based work, E: non-clinical animal work; F: clinical animal work; G: others (tutorials, blackboard practices, field visits, report writing, students' exposition and assessment); H: total. See also Annex 3.5.1 with more detailed information.

* Including Non-Clinical EPT: The students can choose to do 191 practical hours in State Veterinary Services and Public Health or in Slaughterhouses and Food Processing Plants.

Table 3.5.3 Curriculum hours taken as electives for each student

Electives	A	B	C	D	E	F	G	H
Basic Sciences	65.5	14	35.5	30	21	0	17	183
Clinical Sciences	58	22	60	13	0	16	14	183
Animal Production	10	16	20	0	0	0	2	48
Food Safety and Quality	16	2	8	10	0	0	5	41
Professional Knowledge	126	27.5	162	97	0	0	48.5	461

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

(Table 3.5.4) Optional courses proposed to students (not compulsory)

The current configuration of the curriculum only includes 12 ECTS of elective subjects, but no predesigned optional courses. The students can choose among a great variety of optional activities freely offered by the University (language courses, sport activities, theatre, photography, bibliographic references and other activities offered by the other faculties) and external associations.

If interested, the students may also enrol in "Optional Extracurricular Practical Training" during the 5 years of the Degree, this course lasts from 125-600 hours, takes place on holidays and weekends and can be carried out in several different entities. This extracurricular training is not included in the total 300 ECTS of the curriculum, though it is included as especial mention in the European Supplement to the Degree. The management of this training does not depend on the FVL, but on the USC Social Council.

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

Numerous subjects, included in the Clinical Sciences and Animal Health - module (http://www.usc.es/gl/centros/veterinaria/programas.html?plan=14105), include exercises, seminars and clinical practice in their syllabi. In many of these practical sessions, students pass through the different services (both intramural and ambulatory) of the HVURC.

Below is a detailed description (timing, group size per teacher, involvement of students) of these activities:

a) Participating in the clinical activity of the HVURC Surgery Service, the students (in reduced groups of 7) attend practical activities in the following subjects:

- Clinical Veterinary Medicine and Surgery I (4.5 ECTS, 5th semester, 3rd year). 20 hours of practice related to basic aspects of surgery as performing sutures, preparation of instruments, the patient and the surgeon himself, and protocols in the sterilization room. Students also perform a scheduled surgery (ovary-hysterectomy) on a female canine and experience what it is like to be on call of the hospital.

- Medicine and Clinical Veterinary Surgery II (4.5 ECTS, 6th semester, 3rd year). 20 h of practices in which students participate as assistants in the entire process of patient care: exploration, medical record, proposal of diagnostic tests, patient and instrument preparation, surgical procedures and patient follow-up that require hospitalisation. They also learn to interact with the owners.

- Veterinary Anaesthesia and Reanimation (4.5 ECTS, 5th semester, 3rd year). 20 hours of practices related to anaesthetic methods: anaesthetic devices, patient sedation, venous catheterization, endotracheal intubation, injectable and inhalational anaesthetic induction, etc.

b) Participating in the clinical activity of the HVURC Diagnostic Imaging Service, the students (in reduced groups of 7) perform practical activities in the subject:

- Veterinary Diagnostic Imaging (6 ECTS, 5th semester, 3rd year). 30 hours of practice in which students learn to handle material and equipment necessary to perform a radiological, computed tomography (CT) and ultrasound examination, interpret radiographs and properly manage patients and interact with their owners. Each student individually performs the ultrasound exam of a dog.

c) Participating in the clinical activity of the HVURC Diagnostic Pathology Service (in reduced groups of 10), the student complete practical activities in the following subjects:

- General Veterinary Anatomical Pathology (4.5 ECTS, 4th semester, 2nd year). Six hours of practices are devoted to the observation, description and pathomorphological diagnosis of different types of lesions in organs from the slaughterhouse.

- Special Veterinary Anatomical Pathology I (4.5 ECTS, 5th semester, 3rd year). Students attend 15 hours of practice in the necropsy room where they learn to perform a necropsy, differentiate the healthy from the pathological tissues and post-mortem alterations, and elaborate patho-anatomical reports.

- Special Veterinary Anatomical Pathology II (4.5 ECTS, 6th semester, 3rd year). In 22 hours of practice and under the supervision of the teacher, student autonomously perform, necropsy, sampling and necropsy reports of corpses received at the Diagnostic Pathology service for a week. In addition, the students perform the histopathological study of the most interesting cases they had during that week in order to carry out its presentation to the rest of the students.

d) In the following subjects, in groups of 10, aspects of propaedeutics and pathology are studied:

- Clinical Propaedeutic (6 ECTS, 5th semester, 3rd year). 35 hours of practice in the HVURC-CEBIOVET bovine and small animal modules to learn the techniques of exploration and sample collection, interpretation of the signs of disease, and to group them by syndromes to make an adequate diagnosis.

- General Pathology (Nosology and Physiopathology) (6 ECTS, 6th semester, 3rd year). 24 hours of practice in which students solve clinical cases related to different systems with particular emphasis on pathophysiology.

e) In groups of 10, aspects of parasitic diseases are studied in the subjects:

- Parasitic Diseases I and Parasitic Diseases II, a total of 9 ECTS are taught in the 6th semester (3rd year) and 7th semester (4th year). Students attend 30 hours of practice in which, they learn from real clinical cases to collect and process different types of samples (stools, blood and skin) and to diagnose major parasitic diseases. Also, they interpret the results, produce reports and establish appropriate treatment guidelines. Seven of these hours are carried out in the HVURC-CEBIOVET bovine module, where students learn to recognize the main clinical signs of the most frequent parasitic diseases in cattle and to perform a correct sampling. Also, students attend 6 hours of seminars taught by academics, veterinary professionals or voluntary students that address different aspects of special interest or current relevance related to parasitic diseases that affect domestic and wild animals.

f) In groups of 10, aspects of infectious diseases are studied in the subjects:

- Infectious Diseases I and Infectious Diseases II, a total of 12 ECTS are taught in the 6th semester (3rd year) and 7th semester (4th year). Students do a total of 28 hours of practice in which 8 farms (Annex 5.1.1) and Lugo's Animal Shelter are visited. Students assess in situ the health situation, treatment and control of infectious diseases. They also attend 3 hours of seminars where practical cases are addressed in rabbits, horses and pigs, and prepare 2 health reports of the cattle farms visited.

g) Participating in the clinical activity of the HVURC Internal Medicine Service (in reduced groups of 7), the students complete practice in the subjects:

- Veterinary Medical Clinic I and Veterinary Medical Clinic II, a total of 12 ECTS are taught in the 8th semester (4th year) and 9th semester (5th year). In these two subjects, each student attends a total of 56 hours of practice, including 2 days of being on call at the hospital. The students directly perform the examination of the companion animals that arrive at the hospital, select the most appropriate complementary diagnostic tests, perform the patient's diagnosis, inform the owners, establish the treatment and fill in the information corresponding to the medical record. Students also participate in the Ambulatory Clinic Service addressing clinical cases in farm animals (mainly cattle, and to a lesser extent, sheep, goats and pigs) on-site. This service attends 17 farms daily and more sporadically, another 9 (Annex 5.1.2).

h) In groups of 10, aspects of preventive medicine are studied in the subjects:

- Epidemiology, Preventive Medicine and Sanitary Police I (4.5 ECTS, 8th semester, 4th year). Five hours of practice are devoted to the simulation of real clinical situations so that students learn to establish health and productive programmes to make profitable livestock farms.
- Epidemiology, Preventive Medicine and Sanitary Police II (4.5 ECTS, 9th semester, 5th year). Ten hours of practice in which they visit two livestock farms, analysing their health and production programmes. The students learn to make an anamnesis of the herd and farm, the analysis of the production and health data, as well as the diagnosis of the diseases found and the preventive and medical measures that must be taken. The farms that are visited are listed in Annex 5.1.1.
- Zoonoses and Public Health (4.5 ECTS, 8th semester, 4th year). In 15 hours of practice, students learn to make the diagnosis and solve clinical cases of zoonoses.

i) In groups of 10, aspects of obstetrics, reproduction and reproductive disorders are studied in the subjects:

- Veterinary Reproduction and Obstetrics I (4.5 ECTS, 7th semester, 4th year). Each student attends 9 hours of practice learning to manipulate the genital apparatus of the cow and

performing an artificial insemination and a vaginal cytology. There are also 4 hours of seminars concerning ultrasound and dystocia in labour.

- Veterinary Reproduction and Obstetrics II (4.5 ECTS, 8th semester, 4th year). In 20 hours of practices carried out in the HVURC-CEBIOVET bovine module, students learn to perform rectal and ultrasound examination of a cow's genital tract. They also participate for 8 hours in the clinical consultation of small animal reproduction of HVURC, where they become familiar with the diagnosis of reproductive problems.
- Animal Reproduction Technology (4.5 ECTS, 9th semester, 5th year). In 18 hours of practice carried out in the HVURC bovine module, students learn to perform artificial insemination in cows, to control oestrus, ovulation and embryo transfer, and to manage reproduction in cattle.

j) In groups of 10, aspects of pharmacology, pharmacy and pharmacotherapy are studied in the subjects:

- Pharmacology and Pharmacy (6 ECTS, 4th semester, 2nd year). 5 hours of practice are dedicated to working with pharmaceutical forms and managing sources of information on drugs.
- Veterinary Pharmacotherapy (6 ECTS, 7th semester, 4th year). Students attend 15 hours of practice in which they learn to calculate the doses of drugs, the legal aspects of their use, pharmacovigilance, the preparation of the medical record and pharmacotherapy in hospitalized animals.

k) Also, in groups of 10, in the subject Veterinary Toxicology (7.5 ECTS, 7th semester, 4th year), in 6 hours of practice the students learn to perform the general analytical procedure in toxicological research: taking samples and sending them to the laboratory (conditions, chain of custody, etc.), analytical methodologies, interpretation of results, diagnosis and treatment.

Regarding the core clinical rotations and emergencies services, the FVL curriculum is organized so that during the practical activities of the core clinical subjects the students rotate through the different services (both intramural and ambulatory) of the HVURC, as it has just been explained above in detail. In addition, they must perform a 2-week core clinical rotation in the HVURC during the 10th semester ("Hospital Rotation").

The Hospital Rotation is developed at the HVURC with 104 hours of practice (80% on-site learning) (http://www.usc.es/es/centros/veterinaria/materia.html?materia=112203). It is designed to complement the students' clinical training through the acquisition of practical skills necessary for clinical work. Students are incorporated into the current working protocols. They are directly involved in each activity, under the supervision of the Veterinarians who are also Assistant Clinical Professor (PACS). A summary of the hands-on activities and report writing developed by the students during the Hospital Rotation is included in the Logbook (Annex 3.5.2). Activities are classified into:

- **Objectives Type A or Day One Skills** (hands-on) are all those clinical abilities covering professional aspects that students must acquire completely.
- **Objectives type B** are frequent activities, but not included in the Day One Skills, which the student must acquire at least 50% of them.
- **Objectives type C** are "observation more than to hands-on". They are advanced skills only acquired with practice and undertaking these procedures in an unsafe manner could be life-threatening for the patient. The student must acquire at least in 25%.

The services included in the Hospital Rotation are:

- Small Animal Internal Medicine. It includes different specialty Clinics (General Medicine, Dermatology, Oncology, Cardiology, Neurology and Ethology).
- Small Animal Surgery and Anaesthesia. It includes Clinics of different specialties (General Surgery, Orthopaedics, Dentistry, Ophthalmology, Reproduction, and Endoscopy) and Anaesthesia for diagnostic and surgical procedures.

- Diagnostic Imaging. Includes Radiology, Ultrasound, CT and Magnetic Resonance Imaging (MRI).
- Large Animal Service, that includes reproduction, anaesthesia, surgery and ambulatory clinics.
- Service of Hospitalisation/Emergencies. This service is open 24/7/365. The students participate in two hospital shifts once the regular schedule -see below- is over (12 hours on a weekend or holiday and 12 hours overnight).
- Diagnostic Pathology: necropsies, histopathological diagnosis and necropsy report.

Students are distributed into 8 groups per semester, with an average number of 8-10 students per group. Each group has a veterinary PACS as the professional tutor who informs students about the work organization, responsibilities and the ethical commitment, before initiating the clinical activities. In addition, all general information about the Hospital Rotation is available in its Virtual Campus. Each group is split into different specialty clinic services or different activities from the same service, so usually every student is supervised individually.

The regular internship schedule at the Hospital is Monday to Friday from 8:30 to 15:00 hours. There is also an afternoon rotation (15:00 to 21:00 h) and an overnight rotation (21:00 pm to 9:00 am) as well as week-end and holiday service with the on-call veterinarians. Students are under the responsibility of 12 interns, whose work is supervised by 7 veterinary PACS. There is always a specialist available (Surgery/Anaesthesiology, Internal Medicine and Diagnostic Imaging).

An example of the distribution of clinical activities for students during rotations in HVURC:

Services/Days	Days 1-2	Days 3-4	Days 5-6	Days 7-8	Days 9-10	Days 11-14 (weekends)
Internal Medicine	Students 1-2					
Diagnostic Imaging	Students 3-4	Students 1-2				
Surgery	Students 5-6		Students 1-2			
Diagnostic Pathology	Students 7-8			Students 1-2		
Large Animal	Students 9-10				Students 1-2	
Emergencies /Hospitalisation						*Students 1-2

* Students participate in 24 hours emergencies and hospitalisation shift.

Each week, students have a three-hour clinical session with the tutor to discuss the patients treated, prepare written reports and resolve doubts.

Students must submit practical training report to their tutor (via Virtual Campus) that reflects the activity developed, patients attended, and a clinical case described in greater detail, and the logbook complete with all signatures. The logbook represents 70% and the practical training report 30% of the final course mark.

The subjects that provide **specific training in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin** are included in the Hygiene, Technology and Food Safety module (http://www.usc.es/gl/centros/veterinaria/programas.html?plan=14105). In summary:

- Food Technology I and Food Technology II are both 3rd year subjects, with 4.5 ECTS each. The aims of Food Technology I are (A) to work on different aspects of food science and technology such as: 1) the nature and structure of food, 2) physico-chemical properties of food, 3) treatment technology of production, processing, preservation and packaging in the food industry; and (B) to train students to perform basic procedures in the food industry. With these objectives, the students perform (in groups of 20) 10 hours of lab practice described in the syllabus. As for Food Technology II, the purpose is to show the components and properties of foods of animal origin as well as the technological processes for the transformation, preservation, packaging,

storage, transport and distribution of this kind of foods. The students carry out (in groups of 20) 10 hours of lab practice.

- Hygiene II and Hygiene III are both 5th year subjects with 4.5 ECTS each. The aim of Hygiene II is to train the student in the inspection and control of dairy products, fish products and other food of animal origin. With this purpose, hazards that can affect these foods and hygiene measures are analysed, as well as the legislative framework that concerns their production. The teaching methodology of this subject includes practical fieldwork in food processing companies (dairy, fish and others). The syllabus of Hygiene III is based on: A) the hygiene control, inspection and production and processing technology of meat and meat products for human consumption; B) the knowledge and application of the legal provisions, regulations and administrative procedures in the field of meat and meat products and public health; C) the production, in excellent and economically profitable conditions, of fresh meats and meat products and the valuation of their environmental impact; D) identification of emerging risks in the production of fresh meat and meat products. The teaching methodology includes practical training in slaughterhouses.

The students visit different establishments (Annex 5.1.1):

- Dairy plants and Fish markets. The students enrolled in Hygiene II perform, in reduced groups of 10, active visits to the LARSA dairy processing plant. This factory processes more than 500,000 L-UHT milk per day. Likewise, this factory processes butter and powder milk. The Celeiro fish market located on the Lugo coastline with more than 17,000 m^2 of surface, is the main market for Hake (*Merlucius merlucius*) in Spain. It contains an ice factory as well as shellfish and crustacean tanks and many other fish species.

- Slaughterhouses. On these premises the students (in reduced groups of 10) learn in situ the day-to-day working activity including: reception of animals, ante-mortem inspection, stunning, slaughter process, post-mortem inspection, storage and delivery. In addition, they have the opportunity of supervising the hygienic control of the personnel, equipment and facilities. Moreover, students receive information on traceability, specific risk materials (SRM), the Hazard Analysis and Critical Control Point (HACCP) system and veterinary activities. The two main premises visited within this subject, are:
  - *COREN-Novafrigsa*, the main slaughterhouse for ungulates in the Galician Community, processing more than 400 bovine animals per day. It is also authorized to sacrifice animals following the Halal procedure suitable for the Muslim population. There is a collaboration agreement signed between the FVL and the premise owner the COREN Cooperative to perform ante-mortem inspection, as well as sampling procedures on carcasses and facilities, inspection of cutting area, etc.
  - The *COREN* Poultry Slaughterhouse is probably the main platform in Europe of poultry meat. It includes 2 poultry premises with more than 10,000 broiler sacrifices per hour, one for turkeys, a cutting area, a meat processing plant, etc.

The number of Electives and their distribution guarantee that students can enrol in the elective subjects of their choice, as there is no limitation other than coincidences in the schedule with other subjects. The FVL curriculum offers 19 Electives on a total of 57 ECTS (3 ECTS each) (http://www.usc.es/gl/centros/veterinaria/programas.html?plan=14105).

According to article 12.6 of RD 1393/2007, students may also obtain academic recognition of 6 elective ECTS for the subject "External Practical Training". The Faculty will establish an annual call that will define the conditions and requirements for the application and realization of the External Practical Training (http://www.usc.es/gl/centros/veterinaria/practicas_externas.html). Noteworthy, 100% of the premises/activities chosen by the students are clinics and currently an increasing number of students are enrolling in this subject.

Concerning the procedures used to **ascertain the achievement of each core practical/clinical activity**, each subject publishes in its syllabus the contents of the practical programme and a time frame to complete it. The teachers are in charge of carrying out this programming, which will then be evaluated (see 8.8 and 8.9) to verify the degree of acquisition of the competences.

On the other hand, in the GTCS meetings, the students show, among other things, to what extent the training programme has been completed, including the practical activities.

With regard to EPT, the accomplishment of the practical activity is based on the academic and external tutor reports. In the clinical activity during the Hospital Rotation at the HVURC, a personal Logbook has been designed for the students (Annex 3.5.2), in which their tutors certify the completion of scheduled activities.

3.6. External Practical Training (EPT) are training activities organized outside the Establishment, the student being under the direct supervision of a non academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herd's visits, practical training in FSQ).

The EPT and Hospital Rotation includes core subjects in the 10th semester with a total of 24 ECTS (5 Hospital Rotation, 10 Clinical EPT and 9 Non-Clinical EPT) which **complement, but do not replace, the student's academic training,** held in a professional environment. Specific Rules approved by the Faculty Council regulate the EPT, for example: the necessity to have successfully completed 75% of the curriculum ECTS to enrol in any of the three subjects (http://www.usc.es/gl/centros/veterinaria/practicas_tuteladas.html).

- **Hospital Rotation (see 3.5**).
- Regarding the **Clinical EPT and Non-Clinical EPT**, the students must complete a minimum of 403.5 hours of training activities in external facilities in any aspect of the Veterinary scope:
  - 10 ECTS in Clinical Training in veterinary clinics, external veterinary hospitals or ambulatory clinics (small animals, large animals, exotic and wild animals), or undertaking veterinary clinical research activity, that lasts 5 weeks.
  - 9 ECTS in Non-Clinical and Administration Training in livestock farms (cattle, small ruminants, porcine, equine, poultry, fish, etc.), zoological parks, slaughterhouses, laboratories, food industries or other companies in the veterinary sector, Public Administration with official Veterinary Services, or undertaking non-clinical research activities, that last 4 weeks.

The organisation of EPT depends on the Vice-Dean responsible for External Practical Training Activities, with of the support of administrative staff (2 full time and 1 part time staff members) and the institutional support provided by the UXA (Unit of Academic Management). Among another functions, the UXA performs the administrative management of the practical activities and is responsible for the legal agreements with the companies.

At different moments and particularly at the beginning of the 10th semester, orientation meetings with students are carried out to explain the organization of EPT and how to apply through the FVL website. Any student has access to the full list of available external entities on the website (Annex 3.6). The students can also propose new entities that are not included in the list, if interested; in this case, the Vice-Dean evaluates the proposal and, if appropriate, facilitates the approval of an agreement for the EPT.

At the beginning of the 10th semester, students communicate the chosen entities to the Vice-Dean. The coordinators of Clinical EPT and Non-Clinical EPT also help to plan the students´ selections (in a wide possibility of collaborating entities) to assure a correct learning process because they have direct contact with the non-academic tutors. In most cases, the process is not competitive, and most students are authorized to go to their first choice. However, in the case of some specific

entities, the demand is higher than the positions available. In this case, selection is performed with the external entity, and it is based on students´ academic records and especially their grade average.

3.7. Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education by enhancing for the student the handling of all common domestic animals, the understanding of the economics and management of animal units and veterinary practices, the communication skills for all aspects of veterinary work, the hands-on practical and clinical training, the real-life experience, and the employability of the prospective graduate.

As has already been explained in the preceding paragraph, the **EPT and Hospital Rotation** mean the immersion of a student in real practical activity, with all the variability that this entails, and it is usually very different from the regulated academic environment that a student has had until that moment.

Table 3.7.1 Curriculum days of External Practical Training (EPT) for each student

Fields of Practice	Minimum duration (weeks)	Year of programme
Production animals (clinical)	5	5th
Companion animals (clinical)		
Production animals (pre-clinical)	4	
Companion animals (pre-clinical)		
FSQ & VPH		
Others*		

*Laboratories, public administration, feedstuff industries, recovery centres management…

Table 3.7.2 Practical activities (see 3.5) under academic staff supervision (excluding EPT)

Types of activity	List of subjects	Species	Hours/days per student	Year of programme
Intra-mural clinics (HVURC)	Clinical Propaedeutic	Cattle / Dogs	35/14	3rd
	Veterinary Clinical Medicine and Surgery I	Variable*	20/4	3rd
	Veterinary Anaesthesia and Reanimation		20/4	3rd
	Veterinary Clinical Medicine and Surgery II		20/4	3rd
	Diagnostic Imaging		30/7	3rd
	Special Veterinary Pathology I		15/5	3rd
	Special Veterinary Pathology II		22/7	3rd
	Veterinary Pharmacotherapy		9/3	4th
	Veterinary Medical Clinic I		19/4	4th
	Veterinary Medical Clinic II		19/4	5th
	Veterinary Reproduction and Obstetrics I	Cattle	9/3	4th
	Veterinary Reproduction and Obstetrics II	Cattle / Dogs	20/7	4th
	Veterinary Reproduction Technology	Cattle	18/5	5th
	Parasitic Diseases I	Cattle	3/1	3rd
	Hospital Rotation	Variable	88/12	5th
Extra-mural clinics (AMBULATORY)	Veterinary Medical Clinic I	Livestock	9/2	4th
	Veterinary Medical Clinic II		9/2	5th
	Epidemiology, Preventive Medicine & Sanitary Policy II	Cattle / Broilers	10/2	5th

Types of activity	List of subjects	Species	Hours/days per student	Year of programme
	Infectious Diseases I	Equine / Swine / Rabbits	14/3	3rd
	Infectious Diseases II	Cattle / Swine / Sheep / Broilers	14/3	4th
	Hospital Rotation	Livestock / Equine	16/2	5th
FSQ & VPH	Hygiene II: Inspection & Control of Milk, Fish and other Products	Dairy Cattle / Fish	18/6	5th
	Hygiene III: Inspection & Control of Meet and Meet Products	Cattle / Swine / Sheep / Broilers	20/4	5th
	Zoonoses and Public Health	Livestock / Pets	15/5	
Electives	Clinical Microbiology	Livestock	10 hours	4th
	Ecotoxicology	Environment	4/1	4th
Other	Optional Extracurricular Practical Training (Mainly clinical activities)	Variable*	125-600 h	1st-5th

*Dogs, Cats, Horses, Cattle, Swine, Sheep, Exotics & Wild fauna

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

The USC Rectorate has made the management of agreements easier and ensured that they last longer (as they are valid for at least 4 years) by signing an official agreement with every EPT provider which fixes the rights and obligations of the student (Annex 3.8.1). To date, the FVL has promoted a wide number of agreements with many national and international entities (see a list in Annex 3.6), and new placements can easily be added by signing an official agreement.

Before beginning their practices, the students receive a folder (Annex 3.8.2) with the following documents:

- An annex to the general agreement with the student's particular information and the dates of the practical activities in the external facilities.
- A copy of USC insurance and civil liability insurance.

The professional tutor will assess the work and activity carried out by the students and is responsible for certifying the achievement of professional skills on-site. The academic tutor evaluates a detailed report delivered by the student. The rating will be from 0 to 10 points, and the final grade will be the mathematic average of the qualification of both professional and academic tutors.

The EPT coordinators directly contact each one of the professional tutors to gather information about their degree of satisfaction with the performance of the student. The professional tutors fill-in a survey about their degree of satisfaction with the relationship maintained with the Establishment (Appendix 4. Q9).

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

The academic persons responsible for the supervision of the EPT activities and liaison with providers are:

- Ana Mª López Beceiro: Vice-Dean of External Practical Training.

•Marta López Alonso: coordinator of Clinical EPT.
•Nuria Vicenta Alemañ Posadas: coordinator of Non-Clinical EPT.

3.10. Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the Establishment and evaluating the EPT. Students must be allowed to complain officially or anonymously about issues occurring during EPT.

The students are free to choose the EPT placement or establishments that they consider most interesting for their professional future. They must select one of the companies that have already signed an agreement with the USC. However, many students look for new entities, and they are responsible of performing all the steps necessary to sign a new agreement. In both cases, students must contact the external centres and their professional tutors and agree on the dates and schedules of their placement.

During their EPT period, in addition to complying with its obligations in the centre, students must write a placement report and must explain some clinical cases. Students know the model of the EPT report and the assessment criteria.

Students should reflect their level of satisfaction with the EPT in the report they send to the academic tutor and fill in the survey on their degree of satisfaction with the facilities visited and the treatment received (Annex 3.10).

As for the **complaint mechanisms in place concerning EPT**, students can inform the EPT coordinators or the Vice-Dean about any incident, suggestion or complaint. If possible, this person will try to correct it directly by contacting with the places or the professional tutors.

There is also an official procedure for major claims or suggestions, which are the same as for any other subject; these forms are available online (see 7.15).

Comments on Standard 3

The main objective of the FVL Veterinary Degree is that students acquire detailed knowledge in the different areas of the veterinary profession. The curriculum is fully compliant with Spanish laws and EU Directive 2005/36/EC as amended by directive 2013/55/EU and its Annex V.4.1., and it is continuously reviewed and assessed to ensure that the learning outcomes are met.

As a result of this continuous assessment, modifications have been made that have led to improvements in its development. It should be noted, the implementation of the elective "External Practical Training", which is in high demand by students.

The creation of the GCTS has been an essential tool in the process of monitoring the degree, where students feel particularly involved.

There is a wide variety of options available in the EPT, which has been increasing since its implementation, largely thanks to the initiative of the students themselves looking for new destinations according to their professional expectations.

Suggestions for improvement on Standard 3

The coordination mechanisms should be continued to avoid redundancies and overlaps between subjects.

We need a restructuring of some competences –specially the general and transversal ones- that make them more easily understandable and assessable.

There is an initiative promoted by the Deans of Veterinary Faculties in Spain to request an official expansion to 330 ECTS for the degree, to harmonize it with other European countries.

STANDARD 4:
FACILITIES

Standard 4. Facilities and equipment

4.1. All aspects of the physical facilities must provide an environment conducive to learning.

The facilities were planned with the goal of offering adequate conditions for quality education and training, research and provision of services in the various areas of the Veterinary Sciences. The Faculty area comprises a 51,620 m^2 estate on which 40,934 m^2 have been developed and a total extension of 31,728 m^2 has been built in order to accommodate the Faculty's eight basic structural units. These are: the Central Pavilion, the Auditorium, the Lecture Building, four Department Pavilions (14,650 m$^{2)}$, and the Clinics, which include the HVURC. The general plan and distribution of all the Faculty's facilities are shown in Appendix 3.

As regards extramural activities, the FVL has many agreements with numerous private facilities; thus distances are variable (from 10 to 100 km), and adequate transportation is provided. The new Experimental Teaching Farm –currently under construction- is located 17 km from the FVL.

4.2. The veterinary Establishment must have a clear strategy and programme for maintaining and upgrading its buildings and equipment.

The USC Infrastructure Area is in charge of the maintenance and repair of the buildings. They meet annually with the university manager to establish the needs of each Faculty and establish a three-year implementation plan. Each year the actions planned are included in the general budget of the USC.

The allocation of resources of the HVURC is independent of the Faculty and is managed by the Rof Codina Foundation Board that approves the decisions affecting the HVURC management, including the annual budget.

The FVL annually receives specific funds oriented to cover the operating costs and equipment related specifically to teaching, and some specific maintenance costs.

For more detailed information see Standard 2.

4.3. Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled.

- **Lecturing** (total room capacity: 1,458)**:**
    - 3 high capacity lecture halls with 234 seats each
    - 4 medium capacity lecture halls with 144 seats each
- **Group work** (total room capacity: 430 aprox.):
    - 5 small capacity rooms with 15-40 seats each
    - 19 seminar rooms, located in the pavilions, with 10-15 seats each
    - 3 working areas in the lecture building
- Other work rooms:
    - 1 Faculty Council room with 80 seats
    - 1 Auditorium seating 632

All of them have similar basic equipment: blackboard and media system, Wi-Fi coverage, electrical connection for portable devices. Detailed information about equipment can be accessed through the website (http://www.usc.es/gl/centros/veterinaria/infraestruturas.html).

- **Practical work** (total number of places work: 684).

Intramural practical work facilities are within the Departments and Teaching Units, and are mostly laboratories for practical training equipped with the required tools. These premises are

managed and maintained by the Departments or Teaching Units. Some of them have specific requirements (Anatomy, Necropsy…).

The Clinical Skills Lab is currently used by different disciplines, such as Propadaeutics or Veterinary Surgery, so the students practice their clinical abilities in relation to different procedures: venipunction, venous catheterization, ophthalmology, fluids therapy, intramuscular injections, otoscope examination sutures or bandages. Handmade equipment (low-fidelity simulators) or simpler plastic simulators are used for training in basic procedures.

Extramural practical work is carried out in different external farms and other animal production facilities through agreements with several entities (see Annexes 5.1.1 and 5.1.2). Clinical facilities (HVURC) are specifically considered in 4.8.

4.4. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food services facilities.

- **Study and self-learning.** The Central Pavilion has a study room with 130 seats and a computer room with 22 PC. The Wi-Fi coverage allows the students to use the 3 working areas in the lecture building as self-learning spaces to access the internet.

The *Intercentros* Library is only a three minute walk away from The Central Pavilion (fully described in Standard 6)

- **Catering.** The FVL has a large canteen located in the Central Pavilion, with 150 seats. Vending machines are also available in the Lecture Building and the HVURC. Students are free to request the use of the microwave located in the canteen. Prices are economic, and menus are subsidized by USC.
- **Lockers.** There are 96 lockers at the lecture building, 6 locker rooms at the Pavilion 3 (Anatomy and Pathology), and 7 more in the HVURC.
- **Accommodation for on duty students.** There are 2 separate (female/male) bedrooms for on duty service students in the HVURC. The on duty premises are equiped with toilets, shower and a kitchen with a dining area.
- **Leisure.** The *Campus Terra* Office of Culture and Sport services aim to promote and foster the cultural and sport activities on campus.
    - Cultural Programmes and Partnerships: http://www.usc.es/campusterra/en/culture
    - Sports Facilities and Activities: http://www.usc.es/campusterra/en/sports#
- **Sanitary (toilets, washing and/or shower facilities...).** There are toilets and washing facilities in every floor of all buildings. In Pavilion 3 there are also showers in locker rooms (Anatomy and Diagnostic Pathology).

There are several toilets, washing facilities and locker rooms with showers at the HVURC.

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

Pavilions 1 to 4 have several floors, each one with 4 to 6 teacher offices and 3 laboratories (average). The HVURC building and clinic area has different offices and laboratories dedicated to teaching and research. Altogether this means aprox 125 offices and 100 laboratories, enough for the needs of the academic and support staff for teaching and research activities.

In the CEBIOVET there is a surgical research area, one pre-operating theatre for surgical preparation, one recovery and hospitalisation room, two fully equipped small animal operating theatres, 2 storage rooms, 2 locker rooms and a sterilising room.

4.6. Facilities must comply with all relevant legislation including health, safety, biosecurity and EU animal welfare and care standards.

FVL Biosecurity and Risk Prevention Committee: its function is to coordinate, review and approve the biosecurity and self-protection protocols applied to the units where the different activities are carried out, i.e.: academic, clinical or research (see composition: http://www.usc.es/gl/centros/veterinaria/comisions/bioseguridade.html).

These protocols as well as the General Biosecurity Guide are published in the FVL website (http://www.usc.es/gl/centros/veterinaria/bioseguridade.html). There is security signalling and specific information in every lab about individual procedures performed during the activity that takes place there. When appropriate, biosecurity measures are published in the Virtual Campus of specific subjects. When the practical activity involves a potential risk, students must be informed, and a disclaimer must be signed.

In accordance with the needs detected by the biosafety committee, the following actions have recently been undertaken at the FVL:

- An integral remodeling of the necropsy room (to adapt it to the biosecurity standards).
- There are boot washer devices in the dissection and necropsy rooms, as well as in the HVURC area.

All the hazardous waste coming from teaching and research activities undertaken at in the faculty are classified, separated, deposited and stored until their final collection following the rules of the **Waste Management Unit** of the USC (http://www.usc.es/gl/servizos/sprl/residuos/).

All procedures in which animals are used are communicated for authorization by the USC **Bioethics Committee** (http://imaisd.usc.es/seccion.asp?i=gl&s=-2-26-229) in accordance with Royal Decree 53/2013 -that incorporates Directive 2010/63/EU- by which the basic rules applicable for the protection of animals used in experimentation and other scientific purposes, including teaching, are established.

4.7. The Establishment's livestock facilities, animal housing, core clinical teaching facilities and equipment must:
-) be sufficient in capacity and adapted for the number of students enrolled in order to allow hands-on training for all students;
-) be of a high standard, well maintained and fit for purpose;
-) promote best husbandry, welfare and management practices;
-) ensure relevant biosecurity and bio-containment;
-) be designed to enhance learning.

- **Healthy animals.**

The housing of healthy animals is reduced to dogs, cows and horses used for the practice of different subjects. Large animals are temporarily housed at different times of the year according to the teaching needs of each subject. This situation will vary substantially when the works of the new experimental Teaching Farm are completed.

Table 4.7.1. Accommodation for healthy animals for teaching purposes

Authorized species	CEBIOVET Modules	Total number
Dogs	M2	12
Cattle	M6	30
Horses	M5	7

- **Research animals.**

The *Campus Terra* has a **Research Animal Facility (RAF)** close to Pavilion 1 (registration number ES270280331701), and a **Zebrafish Aquarium (ZA)** located at the Research Area (RIAIDT) in Pavilion 2 (registration number ES270280346401).

A new building has been built near the HVURC called **CEBIOVET** (registration number ES270280229301), which houses small and medium animals (dogs, small ruminants and pigs) as well as large animals (cows and horses) intended for research; it also houses isolation and quarantine areas (http://www.cebiovet.com/index.php/en/que-es-cebiovet).

All of them have control systems for temperature, humidity and light-dark cycles to ensure the best husbandry, welfare and management of the hosted species. All the hazardous waste coming from the activities carried out in these dependencies are classified, separated, deposited and stored until their final collection following the rules of the Waste Management Unit of the USC.

There are general biosecurity guides and specific biosecurity sheets, as well as standarized work protocols for each type of experiments, available at any of the three dependencies. Security signaling is clearly displayed.

Table 4.7.2. Authorized species, housing facilities and equipment for research animals in RAF and ZA (in compliance with Law 53/2014, animals used in teaching are intended for scientific use)

Authorized species	RAF	ZA	Modules
Rodents	X		1
Rabbits	X		1
Zebrafish		X	1
Facilities/equipment	RFA	ZA	Units
Quarantine	X		2
Laboratory	X		2
Surgery room	X		2
Necropsy room	X		1
Freshwater aquarium		X	1
Store room	X		2
Cleaning room	X		1
Locker room	X		2

Table 4.7.3. Authorized species, housing facilities and equipment for research animals in CEBIOVET (in compliance with Law 53/2014, animals used in teaching are intended for scientific use)

Authorized species	CEBIOVET Modules	Number of boxes	Nº animals
Dogs	M2	23	92
Small Ruminants	M3	6	30
Swine	M3	6	30
Horses	M4	4	4
Cattle	M4	4	4
Facilities/equipment	Modules	Number of units	
Laboratory	M1	1	
Surgery room	M1	1	
Procedures room	M2	3	
Anaesthesia room	M1	2	
Necropsy room	M1	2	

Authorized species	CEBIOVET Modules	Number of boxes	Nº animals
Postoperative room	M1	1	
Store room	M1	1	
Cleaning room	M1	1	
Hayloft	M1	1	
Milking room	M1	1	
Cold store	M1	1	
Seminar room	M1	1	

- **Hospitalized animals.**

There are different facilities for general hospitalisation and ICU for small and large animals as well as a quarantine and isolation wards. In total there are more than 2,000 m^2 for these areas.

Table 4.7.4. Facilities for hospitalized animals

	Species	Module	Number of animals
Isolation wards	Cattle	M8 CEBIOVET	2
	Equine	M4 CEBIOVET	3
	Cats	M4 CEBIOVET	6
	Dogs	M4 CEBIOVET	12
Quarantine	Cattle	M8 CEBIOVET	2
	Equine	M4 CEBIOVET	3
	Porcine	M3 CEBIOVET	6
	Small ruminants	M3 CEBIOVET	6
	Dogs	M2 CEBIOVET	5
General Hospitalisacion and ICU	Cattle	M5 CEBIOVET	8
	Equine	M5 CEBIOVET	8
	Dogs	HVURC	30
	Cats	HVURC	12
	Exotic pets and wildlife	M4 CEBIOVET	2

4.8. Core clinical teaching facilities must be provided in a VTH with 24/7 emergency services at least for companion animals and equines, where the Establishment can unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures. For ruminants and pigs, on-call service must be available if emergency services do not exist for those species in a VTH. The Establishment must ensure state-of-the-art standards of teaching clinics which remain comparable with the best available in the private sector.

- **Clinical activities.**

In the HVURC there are two main clinical areas, served by a third one grouping the complementary procedures and services.

The SMALL ANIMAL AREA has a lobby, separated waiting rooms for dogs and cats, 7 Consulting rooms (1 Internal Medicine, 1 Cardiorespiratory, 1 Ophthalmology, 1 Dermatology, 1 Exotic Animals, 1 Surgery, 1 Reproduction), 1 Clinical Laboratory, 1 Pharmacy, 1 Anaesthesia room, 2 Ultrasound rooms, 2 X-ray rooms, 1 Film-reading room, 1 CT room, 1 MRI room, 1

Student General Exam room, 5 Surgery rooms, 2 Procedures rooms, Sterilization area, Hospitalisation area, premises for animals used in Medicine an Surgery classes and services:

- o The Internal Medicine Service includes first-opinion and specialty consultations.
- o The Ophthalmology Service includes consultations and surgery procedures.
- o The Dermatology Service includes consultations and minimally invasive diagnostic and therapeutic procedures.
- o The Neurology Service includes consultations and minimally invasive diagnostic and therapeutic procedures.
- o The Companion Animal Welfare and Behavioural Medicine Service include consultations, diagnostic and therapeutic procedures.
- o The Cardio-Respiratory Service includes consultations, echocardiography, interventional radiology and airway endoscopy diagnostic and therapeutic.
- o The Surgery Service includes consultations and surgery procedures of soft tissue, orthopaedics, neurosurgery and dentistry.
- o The Small Animal Hospitalisation and ICU service.

The LARGE ANIMAL AREA has 1 room for examination and specific clinical procedures, 1 X-ray room, 1 Induction/recovery rooms, 1 Surgery room, and Hospitalisation area.

The CENTRAL SERVICES AREA has different services which are common to the small and large animal areas:

- o The Anaesthesiology Service performs sedations and anaesthetic procedures required by the patients (exotic, small and large animals). It is equipped with 10 Anaesthesia machines in the Small Animal Area (1 Anaesthesia room, 5 Surgery Rooms, 1 Procedures room, 2 X-Ray rooms, 1 CT room) and 1 in the Large Animal Surgery Room.
- o The Diagnostic Imaging Service performs radiographic, ultrasound, TC and MRI diagnosis for the HVURC patients and also receives referrals from private practices. The service facilities include 2 X-ray rooms for small animals and exotic pets, 1 X-ray room for large animals, 2 Ultrasound rooms for small animals and 1 CT unit for small animals, plus an archive room and MRI.
- o The Pharmacy Service/Store serves as the control of all medicines and drugs, consumables, laboratory equipment, sutures and other orders requested by the different services of the HVURC distributed as 1 office, 1 laboratory and 1 storage room.
- o The Small Animal Reproduction Service offers a full range of techniques to improve the reproductive performance at the HVURC, artificial insemination in companion animals. The service facilities include 1 consulting room and 1 laboratory.

- **Diagnostic services, including necropsy.**

ANIMAL HEALTH DIAGNOSTIC SERVICE. A parasitic and infectious diseases service is offered here. It gives diagnostic support in the field of infectious diseases, mainly in livestock. In the Parasitology and Parasitic Diseases laboratory an image diagnosis system is used (optical and fluorescent microscopy) to visualize parasitic forms in faecal and entire blood samples. Different parasitic and infectious diseases are detected by means of microbiological and immune-enzyme technologies, liquid chromatography system (FPLC) and a spectrophotometer. Flow cytometry and immune-histochemistry is used for the follow-up of lymphocyte populations in parasitised animals. New equipment has been incorporated as well as qPCR for the detection of parasite and microbological DNA and RNA in different animal and environmental samples.

PATHOLOGICAL DIAGNOSTIC SERVICE. Pathological diagnosis on biopsies and cytology is performed, as well as necropsy and specialized histopathological studies. Special stains, inmunohistochemistry, Transmission and Scanning Electron Microscopy (TEM and SEM) and Fluorescence *in situ* Hybridisation (ISH) techniques are routinely used to complete

histopathological studies. Moreover, our team has two European Specialists in Aquatic Animal Health (in EBVS) and provides services to a growing business sector in our country.

LABORATORY SERVICE. The HVURC has its own clinical laboratory in which the analyses for the hospital patients are carried out as well as those for samples brought in by other clinicians. This service is managed by HVURC personnel. It has diverse, easy-to-use equipment which provides fast haematological and biochemical identifications for the emergency service, especially at night. The most frequently performed analyses in the clinical laboratory are: biochemical, and haematological analysis including metabolites, enzymes, ions, hormones, etc. and some serological, bacteriological, mycological and parasitological tests for small and large animals. In addition to the basic laboratory equipment, the diagnostic laboratory has an automated haematological analyser (laser technology), biochemical analyser, microscopes, refractometer, electrolytes analyser, gas analyser, spectrophotometer, coagulometer, flow hoods, stove for bacterial and fungal cultures in urine and hair samples. The samples that cannot be processed in the HVURC laboratory are sent to external laboratories. The tests most frequently needed are: allergy tests, bacteriological cultures, serological test (antibodies determination).

Table 4.8.1 Equipment for clinical services.

Small animal area ▭   Large animal area ▭   Central services area ▭

Service	Basic equipment	Specialized Equipment
Internal Medicine	Available	Endoscopy
Surgery Service	Available	Arthroscopy, neurosurgery micromotor, laparoscope
Exotic animals	Available	
Hospitalisation/IC/ER	Available	Ultrasound, 2 oxygen concentrators, 1 anaesthetic machine, 1 multiparameter monitor, blood pressure monitor (Doppler)
Ophtamology	Available	Ocular ultrasound, electroretinography, slit-lamp, indirect and direct ophthalmoscopy, phacoemulsificator, surgery microscopy
Cardio-respiratory	Available	ECG, echocardiography (4D), Holter ECG, blood pressure monitor (Oscillometry and Doppler).
Dermatology	Available	
Animal Welfare and Behaviour	Available	
Neurology	Available	Electromyograph
CENTRAL SERVICES	Available	Endoscopy, arthroscopy

Diagnostic Imaging Service	Available	2 X-ray machines for small animals and exotic pets
		    1 with direct radiography (DR) and fluoroscopy
		    1 with computed radiography (CR) system
		2 mobile X-ray machine for large animals
		3 ultrasound machines: small animals and large animals
		2 C-arm fluoroscopy system for radiographic diagnosis and surgical support
		1 16 Slice-CT system for small animals
		1 Low field MRI system (0.25 Tesla) for small and large animals

Anasthesiology Service	Available	Anaesthetic workstations with ventilator and ventilatory and anaesthetic gases monitoring, standard monitoring, BIS
Pharmacy	Available	
Laboratory		Haematological and biochemical analysers, ion-selective electrode analyser, gasometer, centrifuges, microscopes, refractometers
Reproduction	Available	Microscopes, endoscopy

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

The HVURC applies the deontological code regarding good practices and minimum prices. Both the farms in which the students perform their practical training and the HVURC facilities are regularly inspected by veterinarians of the Rural Environment Department of the Autonomous Government, thus ensuring standards of animal welfare and animal health.

All the specialists at the HVURC are collegiate members and meet the deontological code. All the veterinarians that supervise the EPT are collegiate members of the Official Veterinary College and follow the deontological code for the exercise of the veterinary profession as set ont by the Spanish Veterinary College Organization (http://colvet.es/sites/default/files/2015-11/documento__0.pdf). In addittion they meet the FVE guidelines of the Code of Good Veterinary Practice. (http://www.fve.org/news/publications/pdf/gvp.pdf). Most of them belong to professional associations (such as AVEPA, ANEMBE...) whose purpose is to help professionals stay up to date in the respective specialties. Therefore, these are veterinary professionals who are concerned about constantly improving their knowledge and skills.

The Laboratory of Food Hygiene, works as an accredited Laboratory following the ISO-17025 Standard, and passes regular Audits made by the National Accreditation Entity (ENAC). This Laboratory has certified procedures to check for the presence of residues of drugs in bovine urine, liver and retina, and others used to check animal residues in feed, cholesterol in feed, *Salmonella* in faeces as well as to verify the traceability of meat products using molecular techniques. The students learn what the work in a laboratory following the ISO-17025 Standard should be like.

4.10. All core teaching sites must provide dedicated learning spaces including adequate internet access.

All classrooms have apropriate teaching facilities: blackboards, screens, computers, video projector, speakers, etc. Computers on the premises are all equipped with the necessary software for their teaching purpose. There is also a classroom for group work (*XXV-Aniversario*) with a interactive whiteboard. Videoconferencing is available in Council room and in different premises for group work: *XXV-Aniversario*, *Galeno*, *Aresa I* and *Aresa II* rooms.

Campus Terra buildings have a wired intranet connection with the Campus of Santiago de Compostela de Compostela. In addition, all of them have their own free Wi-Fi access (open to all members of the university community), each one with a personal username and password, to access the network services. (eduroam or WIFIUSC-WEB).

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

All students have access to diagnostic and therapeutic facilities under the supervision of the professor in charge of the practical groups. They are also allowed to access the clinical records of the HVURC databases upon request submitted to the staff member in charge of each service, not only to follow the hospital clinical cases but also to prepare their essays and final practical training reports.

4.12. Operational policies and procedures (including biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors.

USC Risk Prevention Service (http://www.usc.es/sprl) promotes the health and security of USC workers and for this reason it designs, applies and coordinates the plans and programmes of preventive action, evaluates the risk factors that might affect the security and personal health of

the staff, and promotes a culture of prevention by irforming and implicating all those involved. Processes and protocols that can be carried out in the service: emergency telephones, notifications of accidents, procedure of risk communication, acquisition of equipment for individual protection, communication of pregnancy, request of dangerous waste collection.

FLV Biosafety Manual has been prepared by the Biosafety and Risk Prevention Committee in collaboration with the professors and researchers, with the advice of the USC Risk Prevention Service (and approved by the Faculty Board). In this Manual, the information and the general biosafety norms, good laboratory practice and good clinical practice to be applied in all activities, undertaken within the establishment and in extramural practices are contemplated.

In addition, each subject has developed one or more **Specific Protocols** for each type of practical activity (laboratory, necropsy, anatomy, clinic, farms, slaughterhouses, etc.) and activities (teacher and researcher). The specific protocols for each subject are generally available for students in the virtual calssrooms. Both the Biosafety Manual and the Specific Protocols are under permanent review for improvement. All information about biosecurity is available on the FVL website (http://www.usc.es/gl/centros/veterinaria/bioseguridade.html).

Normally, the first day of class, each subject explains the general biosafety norms and especially the personal protection equipment, (their own or provided for them) that the students must use during the practical sessions. Before starting each activity, the teacher explains the rules of biosecurity and good practice again and ensures that the students understand and comply with them.

The main researcher is responsible for informing/reporting biosafety measures and good laboratory practice to new investigators or auxiliary personnel who join the group.

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

The hospital has an independent building for the isolation and hospitalisation of small and large animals with contagious infectious or parasitic diseases. It is designed and constructed to maintain proper welfare conditions and biosafety for these animals, and prevent the dissemination of infectious agents. Only authorized personnel, including cleaning personnel, can access it. Students must be accompanied and supervised by a hospital teacher or veterinarian. All the staff and students must follow the strict protocol of work: good practice, clothing, use of personal protective equipment and waste/residue collection.

Table 4.13.1. Isolation facilities at HVURC

Species	Number of units
Cattle	1 box
Equine	1 box
Small ruminants	1 box
Dogs	4 cages
Cats	4 cages

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

The Ambulatory Clinic Service of the HVURC, supervised by the professors of Large Animal Internal Medicine, serves clinical cases on the farms throughout the year.

Students also perform clinical practice in subjects included in the Clinical Sciences and Animal Health module. This practice includes visits to farms of cattle, sheep, pigs, rabbits, laying hens, broilers, horses and a dog and cat shelter (for farms visited, see 3.5.2).

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

The following means of transport are used to take students to extramural practices:

- 2 HVURC vans (6 seats), one for the Livestock Ambulatory Clinic (mainly cattle) and one for the Equine Ambulatory Clinic. They have the necessary equipment, instruments and medicines to take care of the most common cases treated. If necessary, other portable equipment is used.
- FVL contracts the bus service with a private company for the rest of extramural practices (farms, slaughterhouses, factories and other facilities). The number of the depends on the number of students, usually between 10 and 40 per group.

Transportation of live animals. Usually any animal that needs to be treated is taken to the hospital by its owner. Thus the HVURC only has a specific trailer for the transport of horses (or cattle).

Transportation of cadavers/materials from animal origin. The FVL has a van with lifting platform, for the collection and transport of cadavers from clinics and farms, fishes from fisheries, and organs from the slaughterhouse. After use, it is cleaned and disinfected at the necropsy room facilities.

Table 4.15.1 Vehicles and use

USE	FVL	HVURC
Student transportation	External bus service (contracted)	
Ambulatory Clinics		1 van: Nissan Primastar for ruminants (6 seats) 1 van: Mercedes-Benz Vito (6 seats)
Live animals		Nissan X-Trail (5 seats) Horse (large animals) Transportation Traile
Cadavers/materials from animal origin	1 van (3 seats) w/lifting plattform	

Table 4.15.2 Number of extramural practical trips (excluding ambulatory clinic)

Month	2016/2017	2015/2016	2014/2015	Mean
September	16	17	11	14.67
October	27	27	22	25.33
November	33	26	21	26.67
December	15	19	9	14.33
February	5	3	2	3.33
March	18	9	8	11.67
April	25	24	24	24.33
May	30	10	10	16.67
Total	169	135	107	137

Comments on Standard 4

Since the last visit, apart from the maintenance and renovation of teaching facilities (projectors, computers, laboratories, freezers...), numerous reforms were undertaken to adapt the spaces to the European Higher Education Area methods, to ameliorate the welfare of students, professors and administration staff, to raise biosecurity and to improve energy efficiency in the complex. More detailed information can be seen in the Introduction.

In the last years, we have introduced a new strategy to increase some facilities intended for students' welfare: lockers, information screens and working corners in the lecture halls have been donated by different companies related to the profession.

**Suggestions for improvement on Standard 4**

The FVL buildings go back to 1990. Therefore, an exhaustive maintenance plan is needed as well as the refurbishment of different facilities for the handicapped people so as to guarantee the existence of adapted WC´s in every pavilion and a lift in the Central one.

The new demand for smaller groups of students, requires the large lecture halls to be refit.

The central heating in the Lecture building needs to be renewed.

The transportation of professors and students to the new teaching farm has to be assured so as not to interfere with the regular schedule.

All these demands cannot be accomplished by the FVL with its own budget this depends on the central services of the USC.
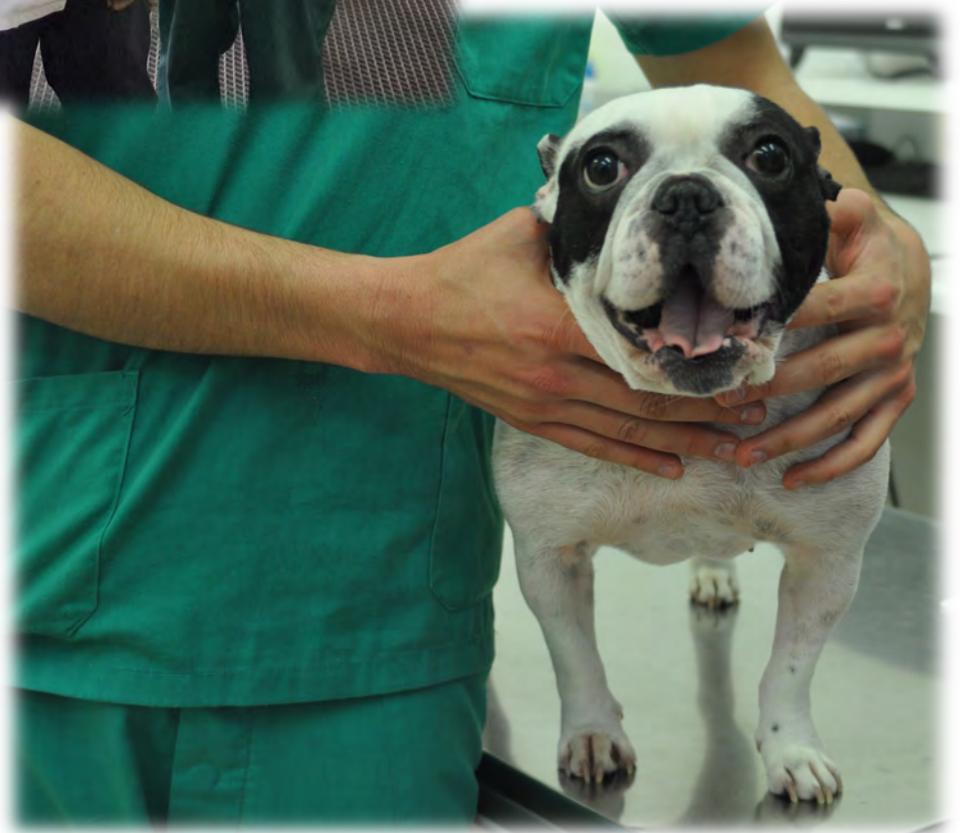
STANDARD 5:
ANIMAL RESOURCES

Standard 5. Animal Resources And Teaching Material Of Animal Origin

5.1. The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical training (in the area of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled.

The **global strategy of the FVL about the use of animals and materials of animal origin** is, first, to guarantee the acquisition of all the competencies defined in the curriculum, including day one competencies. This must be achieved with the search for a balance between what is needed to assure an adequate hands-on training and what can be reduced or replaced using cadavers or models instead of live animals. And this is done for two reasons: to minimize the risk of exposure of our students and to favour animal welfare as much as possible.

In this sense, all subjects, but especially Basic Sciences ones, make an annual prediction of their needs based on the number of students enrolled in the previous course, which is usually a valid indicator. This process is done with the support of the departments and the faculty.

The clinical training is mainly supported by the HVURC as its chief foundational mission. A permanent goal is to maintain a sufficient caseload in the areas of small and large animals, with respect to intramural cases and those attended with the ambulatory clinics.

In 2016 a Clinical Skills Laboratory (LHC) was opened, where a series of low-fidelity dummies gives students a risk-free hands-on experience in different practical simulated procedures to enhance their abilities beyond the regular training during the practices. Attendance to this activity is voluntary.

Concerning practical training in the fields of food safety and animal production, they are carried out in the LARSA dairy plant, the COREN slaughterhouses and the Celeiro fish market (see table 5.1.8), and in the visits to the concerted farms (Annex 5.1.1).

With regard to how 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, implemented and revised, there are different and complementary levels of responsibility:

- Each subject has the responsibility to anticipate the necessary materials for the practical training and, when necessary, ask for Department and Faculty support:
  - Basic subjects (namely Anatomy, Biochemistry, Biology, Genetics, Cytology, Histology, Embryology, Microbiology, Immunology, Animal Welfare and Ethology, Physiopathology) use animals or animal derived products for their practical teaching. Live animals (equines, bovines, dogs, cats) are generally used, as well as cadavers and animal organs, and biological specimens such as blood, serum, plasma, urine, milk, tissues, exudates, cell suspensions, and cell cultures. Those materials are obtained from the necropsy room, HVURC clinical cases, CEBIOVET, slaughterhouses and kennels, or from other sources such as farms, private clinics, local markets, and animal housings. Dogs, equines and cattle from the HVURC/CEBIOVET kennel and barns are also employed in the teaching of non-invasive procedures. All materials are stored by fixation, refrigeration or freezing techniques, whilst live animals are always kept in controlled animal housings in the HVURC and/or CEBIOVET. The Human Public City Hospital also facilitates human erythrocytes for the practical training of the students in the subject Veterinary Immunology.
  - The core subjects Animal Welfare and Ethology, Animal Production II, Infectious Diseases I and II, and Epidemiology, Preventive Medicine and Sanitary Policy II use animals from the Provincial Government *Gayoso Castro* Farm in Lugo, The *Fontefiz* cattle breeding farm, the *Marco da Curra* sheep farm, the local Animal shelter and animals from different cattle, horse, rabbit, poultry, swine and sheep farms.

- All teaching activities addressed in the syllabus are approved by the departments, reviewed by the GTCS and ratified by the Faculty Council, so they can be published on the web at least 10 weeks before the start of the next academic year.

The HVURC annually asks all subjects to communicate, several months ahead of the beginning of the academic year, the dates and number of healthy animals they will need for practical activities (see table 5.1.2). The HVURC has 30 healthy cows, 2 mares and a pack of 6 beagles (average) available for training purposes. Besides, it also has 26 agreements with external farms to perform clinical practice on livestock through the ambulatory clinic (Annex 5.1.2). Additionally, there is also an annual agreement between the Faculty, the HVURC and the Spanish Ministry of Defence to allow our students to practice with the military stock of studs that are available at the hospital premises from April to June on a daily basis (normally 4-5 horses/day). Activities developed at the HVURC are intended to provide clinical services and assistance to the practitioners and, at the same time, on developing its main mission of supporting the practical training of veterinary students.

In 2003, the USC set up a Bioethics Committee (CB, *Comité de Bioética*), with the main duty of overseeing all scientific and teaching **procedures** using live vertebrates **to ensure the welfare of animals used for educational and research activities.** The CB is currently made up of ten members, including seven scientists -two of them Veterinarians- with expertise on animal welfare and/or ethics. (http://imaisd.usc.es/seccion.asp?i=gl&s=-2-26-229). It must approve any procedure using live animals or samples from vertebrates, both for teaching and research purposes, before it can be carried out; it is also in charge of evaluating any research project that uses animals and employs the 3 Rs principle as a framework to assess their ethical acceptability http://www.usc.es/export9/sites/webinstitucional/gl/normativa/descargas/ComiteBioetica.pdf.

The FVL has been particularly active in the field of animal welfare. Three professors are members of the CB and one veterinarian member of the academic staff oversees the sanitary status and welfare of the laboratory animals for the animal housing facilities in Santiago de Compostela and Lugo.

The HVURC, that has been officially recognised by the Galician Autonomous Government as an Animal Welfare Teaching Centre, also has a Bioethics Committee (CB-FRC, *Comité de Bioética de la Fundación Rof Codina*). In 2013 this CB-FRC got the accreditation as official evaluator of research projects in agreement with art.43 of Royal Decree 53/2013 (Annex 5.1.3). Any research project using animals to be developed in the CEBIOVET, or in any other external research facility inside or outside the USC, may apply for evaluation by the CB-FRC (http://cebiovet.com/index.php/es/formularios/proyectos).

Bones, viscera and cadavers or parts of them from different domestic and wild/exotic animal species (dogs, cats, equines, bovines, sheep, poultry, wild birds, fishes and exotic and laboratory animals) are used for the **practical anatomy training** of the students.

Dog and cat cadavers may come from the Lugo Animal Shelter animals euthanized for humanitarian reasons, or from the HVURC provided that they were euthanized for neither non-pathologic, nor infectious reasons. The cadavers of poultry and sheep are old animals which have been rejected from farms. The cadavers of foals and calves are animals that died during delivery or due to a pathological non-infectious condition. Viscera are extracted from the whole cadavers used and/or obtained from slaughterhouses (this is the case of horses, cattle and pigs). Several other animal products are also sporadically used, such as foetuses with congenital malformations, usually obtained from private practitioners. Wild birds' specimens come from animal recovery centres; wild and cultured fish are provided by aquariums, industries and restocking facilities; marine mammals and parts of them are obtained from the Galician Stranding Network (CEMMA); wild or exotic mammals come from animal recovery centres, rabbits from animal farms and rats from the USC Central Animal Facilities; amphibians come from a Neuroscience

research laboratory from the Autonomous University of Madrid, some snakes, lizards and alligators come from the Vigo Zoo (Pontevedra) and from the Department of Anatomy of the University of Valladolid, and turtles are provided by a local animal recovery centre.

Once used, all carcasses, fresh parts and viscera are destroyed by incineration; the rest of the materials are stored depending on their future use: some specimens will be kept in containers with preserving solution for several years, some will be frozen, and others will be dehydrated and exhibited -ready to use- in the Anatomy Museum. The Anatomy Unit has a complete collection of bones and skeletons of the different domestic species, stored next to the dissection room or in the Anatomy Museum, accessible to students. In addition, for specific parts or purposes some resin anatomic models can be used to complete students' training.

Cadavers of small animals for **necropsy** come from the HVURC and the Lugo Animal Shelter. Moreover, the Faculty has an agreement with Small Animal Clinics in Lugo and its surroundings to provide, with the owners' approval and free of charge, the cremation of pets once they are used for practical sessions with the students. Cadavers of large animals come from farms and private practitioners. In this case, the Faculty also offers free transportation and cremation when they are used in practical training with the students. In addition, discarded organs from the NOVAFRIGSA slaughterhouse are used in practical classes at the necropsy room of the core subjects of General and Special Veterinary Pathology.

The practical sessions of histopathology are performed on pathological tissues from biopsies, organs or cadavers obtained from the necropsy room, HVURC, private clinics, practitioners or slaughterhouses.

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

Species		Number of cadavers			Mean
		2017*	2016	2015	
Food producing animals	**Cattle:** 2 whole skeletons + several sets of bones (figures correspond to viscera)	Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital organs: 10 Stomach: 5 Lg intestine: 3	Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital organs: 10 Stomach: 5 Lg intestine: 3	Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital organs: 10 Stomach: 5 Lg intestine: 3	Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital organs: 10 Stomach: 5 Large intestine: 3
	Small ruminants: 1 whole skeleton + several sets of bones (figures correspond to viscera)	2 whole cadavers + preserved viscera	2 whole cadavers + preserved viscera	2 whole cadavers + preserved viscera	2 whole cadavers + preserved viscera
	Porcine: 1 whole skeleton + several sets of bones (figures correspond to viscera)	2 whole cadavers + different preserved viscera	2 whole cadavers + different preserved viscera	2 whole cadavers + different preserved viscera	2 whole cadavers + different preserved viscera
Poultry (whole fresh cadavers)		2	2	3	2.3
Rabbits (whole fresh cadavers)		16	12	12	13.3
Equine: 1 whole skeleton + several sets of bones + parts and viscera (figures correspond to heads, feet and viscera)		Heads: 8 Feet: 8 Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital	Heads: 10 Feet: 10 Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital	Heads: 10 Feet: 10 Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital	Heads: 9.3 Feet: 9.3 Heart: 10 Lungs: 10 Liver: 10 Spleen: 10 Kidneys: 10 Genital organs:

Species		Number of cadavers			Mean
		2017*	2016	2015	
		organs: 10 Stomach: 10 Large intestines: 3	organs: 10 Stomach: 10 Large intestines: 3	organs: 10 Stomach: 10 Large intestines: 3	10 Stomach: 10 Large intestines: 3
Companion animals /exotics	Canine*: 4 whole skeletons + several sets of bones + different preserved viscera	10	12	12	10.6
	Feline*: 2 whole skeletons + several sets of bones + different preserved viscera	3	2	2	2.3
	Wild Birds**: several whole skeletons + several sets of bones	25	20	20	21.6
	Fish**:1 whole skeleton	59	35	30	41.3
	Amphibians: Anura and Urodela preserved animals Reptiles*: fresh turtles + 2 whole skeletons and preserved specimens of Lizards, Snakes and Alligators. Some preserved viscera of turtles and alligators	15 turtles	10 turtles	10 turtles	11.66
	Laboratory/Exotic Mammals**: several whole skeletons	Rats: 32	Rats: 24	Rats: 24	Rats: 26.6
	Marine Mammals***: 1 whole skeleton + several sets of bones + different preserved viscera	2 whole cadavers + 4 heads	2 whole cadavers + 3 heads	1 whole cadaver + 3 heads	1.6 whole cadavers + 3.3 heads

* Figures correspond to whole preserved cadavers used for dissection; ** Figures correspond to whole fresh animals used for dissection; *** Figures correspond to specimens used for dissection.

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

Species		Number of healthy animals			Mean
		2017*	2016	2015	
Food producing animals	Cattle	30[a]/675[b]	30[a]/675[b]	30[a]/675[b]	750
	Small ruminants	340[b]	340[b]	340[b]	340
	Pigs	122[b]	122[b]	122[b]	122
Poultry		210,180b	210,180[b]	210,180[b]	210,180
Equine		7[a]/5[b]	7[a]/5[b]	7[a]/5[b]	12
Companion animals /exotics	Canine	7[a]/5[b]	7[a]/5[b]	4[a]/5[b]	11

* Year prior to evaluation. a) Faculty animals (HVURC); b) Animals in other locations

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

Species		Number of patients						Mean
		2017*		2016		2015		
		a)	b)	a)	b)	a)	b)	
Food producing animals	Cattle	34	6	31	5	41	6	35.33
	Small ruminants	7	2	2	0	1	0	3.33
	Pigs	1	0	0	0	0	0	0.33
Equine		47	9	130	18	121	4	99.33
Companion animals /exotic	Canine	4,993	445	4,919	541	5,174	657	5,028.66
	Feline	555	96	547	95	575	99	559
	Other**	145	20	199	27	224	19	189.33

* Year prior to evaluation; ** Indicate species: birds, reptiles, rodents, etc. a) received for consultation; b) remain hospitalised in the HVURC. ✧ Each patient must be officially recorded in the electronic patient record system of the Establishment and must be individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient, even if it has been examined/treated by several departments/units/clinics.

Due to the special characteristics of the Large Animals clinic, most of the cattle and almost half of the horses, swine and small ruminant patients are not seen intra-murally in the HVURC facilities but visited with the Ambulatory Clinic Service (table 5.1.4).

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

Species		Number of patients extra-murally (HVURC ambulatory clinics)			Mean
		2017*	2016	2015	
Food producing animals	Cattle	913	1060	1164	1045.66
	Small ruminants	46	38	23	35.66
	Pigs	11	18	29	19.33
Equine		120	50	84	84.66
Companion animals /exotics	Canine	0	1	0	0.33
	Feline	1	0	0	0.33
	Other** (birds)	1	1	0	0.66

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

Additionally, the HVURC has signed an agreement with the Galician Ministry of the Environment to provide clinical support to a Wildlife Rescue Centre (*O Veral*) in Lugo; this allows students to actively participate in clinical cases: sampling treatment and control of infectious diseases.

There are agreements between the Faculty, the HVURC and the Lugo Animal Shelter for the protection of abandoned dogs and cats. Within this frame, animals abandoned in Lugo area are sent to the Faculty for care and neutering before being given in adoption or returned to the kennels. Students are involved in these activities which provide them with additional surgery training (5 neutering's/week).

The proportion of referred cases is highly variable depending on the area and the speciality consultations (Table 5.1.5). The medical records do not discriminate between **first opinion patients and referral cases**, so the figures shown here are an estimation. As a whole, the total percentage of referral cases in the Small Animal Unit is about 50%; nevertheless, in the specialised services referral cases reach 70-80% of total consultations (CT, electroretinography...). For Large Animals, the percentage of referral cases is around 20%. It is not objectively possible to

anticipate how this percentage will evolve in the coming years, but, subjectively, a steady increase can be seen. For small animals, the policy of the establishment is to keep a significant number of first opinion cases since they provide valuable material for teaching in the type of cases that our students will face most frequently when they graduate.

Clinicians who receive referred cases contact the practitioner by phone to inform him/her on the diagnose and to agree on the therapeutic protocol. Finally, owners of referred cases are encouraged to go to their clinic for any case follow-up by their regular veterinarian.

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

Species		% First opinion patients intra-murally and ambulatory clinics			Mean
		2017*	2016	2015	
Food producing animals	Cattle	80	80	80	80
	Small ruminants	80	80	80	80
	Pigs	100	100	100	100
Equine		80	80	80	80
Companion animals /exotics	Canine	50	50	50	50
	Feline	50	50	50	50
	Exotic animals	75	75	75	75

*Year prior to evaluation

Table 5.1.6 Cadavers used in necropsy

Species		Number of necropsies			Mean
		2017*	2016	2015	
Food producing animals	Cattle	55	50	29	45
	Small ruminants	27	28	32	29
	Pigs	41	63	53	52
	Other farm animals [1]	693 kg	950 kg	640 kg	761 kg
	Fish [2]	70	108	240	139
Equine		5	3	0	3
Poultry		80	70	64	71.33
Rabbits		122	62	159	114.33
Companion animals /exotics	Canine	142	159	187	162.66
	Feline	32	33	39	34.36
	Other**	20	33	28	27

* Year prior to Visitation, **Indicate species: rodents and exotic pets (not included in other parts of the table) (1) Kg of organs condemned from slaughterhouse, mainly cattle lungs, livers, kidneys and hearts. (2) Salmonids, Turbot, Seabass, Gilt-head bream.

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

Species		Visits in herds/flocks/units			Mean
		2017*	2016	2015	
Food producing animals	Cattle	616[a]	616[a]	616[a]	616[a]
		32[b]	29[b]	26[b]	29[b]
		45[c]	41[c]	40[c]	42[c]
	Small ruminants	22[a]	22[a]	22[a]	22[a]

Species		Visits in herds/flocks/units			Mean
		2017*	2016	2015	
		11[b]	10[b]	9[b]	10[b]
		13[c]	12[c]	11[c]	12[c]
	Pigs	22[a]	22[a]	22[a]	22[a]
		11[b]	11[b]	11[b]	11[b]
		13[c]	13[c]	11[c]	12.3[c]
Equine		200[a]	40[a]	40[a]	90.3[a]
		10[b]			3.3[b]
Poultry		10[b]	8[b]		6[b]
		13[c]	13[c]	11[c]	12.3[c]
Rabbits		10[b]	11[b]	11[b]	10.7[b]
		13[c]	13[c]	11[c]	12.3[c]
Other**: Visits to kennels		10[b]	11[b]	8[b]	9.7[b]
Visits to industries producing animal Foodstuff (subject: Animal Nutrition)		7	6		4.3
Visits to farms producing forage (subject: Agriculture)		2	2	2	2

* Year prior to evaluation, ** Indicate species. [a] Visits to farms with agreement with the HVURC for practical training in Herd Health Management in the core subject Hospital Rotation (these data are estimative; see Annex 5.1.2). [b] Visits to farms nearby Lugo with agreement with the USC for practical training in Infectious Diseases, Epidemiology, Preventive Medicine and Sanitary Policy (see Annex 5.1.1). [c] Visits to farms with agreement with the USC for practical training in Animal Production and Herd Health Management (see Annex 5.1.1).

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

Species		Visits in slaughterhouses and food industries			Mean
		2017*	2016	2015	
Slaughterhouses	Ruminants	20	20	20	20
	Poultry	4	4	4	4
Milk industries		4	4	4	4
Fish industries/markets		4	4	4	4
Other**		4	4	4	4

*Year prior to evaluation; **Meat cutting room

5.2. It is essential that a diverse and sufficient number of surgical and medical cases in all common domestic animals and exotic pets be available for the students' clinical educational experience and hands-on training.

The teachers responsible for each clinical subject of the curriculum design the contents of the syllabus, and with this base they calculate the quantity and variety of clinical cases necessary to guarantee optimal training. However, this is only an estimation, since it depends on the variable workload of the hospital during the academic period. However, as can be seen from the data in the previous tables, a sufficient number and diversity of cases to guarantee educational experience and hands on training is observed. In fact, the curriculum is developed without difficulties and the students acquire an adequate level of competence as can be seen from the satisfaction reports of the EPT providers.

Annex 1.5 shows the HVURC organisation chart. The HVURC intra and extramural activities, facilities and management are fully described in 3.5, 4.8 and 4.14.

The HVURC is open on a 24/7/365 basis, including emergency services and Intensive Care. Consultations are open from Monday to Friday by appointment, normally from 9 a.m. to 2 p.m. The HVURC has a broad variety of services and specialisations described in 4.8. Each service has its own time schedule depending on academic duties.

During afternoon and overnight, as well as week-ends and holidays, there is an Emergency service and Intensive care unit with the on-duty veterinarian plus 2-3 students sleeping at the Hospital (1 student from Surgery, 1 student from Internal Medicine and 1 student from Clinical Rotation); there is always a specialist (Surgery, Anaesthesiology, Internal Medicine and Diagnostic Imaging) available on-call.

Within this regular schedule, clinical and Hospital rotations are developed; detailed information on everyone involved can be seen in 3.5.

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

In the visits to external sites a professor always goes with the students in one of the HVURC vehicles and when necessary, transportation for students and professors is contracted by the Faculty with an external company.

Visits to external farms are organised under official agreement either with the HVURC or the FVL (see Annexes 5.1.1 and 5.1.2). The number of visits to these farms in small groups is shown in Table 5.1.7.

Students actively participate in the practices on extramural teaching farms:

During the HVURC practical activities for Herd Health Management, students go with the professor to external farms in order to deal with the common medical and surgical problems in the farming of food-producing animals and horses. Students must not only watch the professor, but they must perform the clinical evaluation and medical or surgical procedures by themselves. In cattle farms all students perform the anamnesis, exploration and differential diagnose, blood sampling, perform SC, IM, IV injection, auricular vein catheterisation and fluid therapy, urinary bladder catheterisation and urinary test interpretation, bandages, hoof trimming, dehorning, ultrasound diagnosis of pregnancy as well as postpartum control (1-3 weeks after delivery) of ketosis, aciduria and metritis. In equine farms all students perform identification, cardiovascular exploration (heart rate, capillary refill time, pulse, digital pulse, mucosae colour), auscultation and breathing frequency, intestinal motility checking, take body and foot temperature, exploration of the eye, ear, mouth and feet, take blood samples from jugular vein and perform transrectal ultrasound gestation control at days 15, 45 and 5 months of pregnancy.

During their practice for Infectious Diseases, Epidemiology, Preventive Medicine and Sanitary Policy on external farms, students perform risk analysis, evaluate the health status of the farm, diagnose, treat, prevent and control the infectious diseases, make the anamnesis of animals and farms, cross-check the productivity and sanitary data and perform a mock sanitary inspection in the farm by applying the biosafety and biosecurity rules.

During their practice for Animal Production and Animal Welfare, students go to external sites. There, students must use the legislation in place to qualify the welfare of different animal species at the farm, evaluate body condition and cleanliness of the animals and the suitability of buildings and equipment for the given production system, see and participate in the milking process from the entrance to the departure of the cows in the milking room, calculate productivity and prolificacy indexes at the farms, etc. Normally students receive a questionnaire to fill in during the inspection of animals and facilities, with the real productive and reproductive data of the farms to facilitate the analysis; they also must ask the farmer and the professor questions to complete the questionnaire.

During their practice for Animal Nutrition, students visit industries producing animal foodstuffs with the professor and are trained by a veterinarian on analysis and biosecurity control and inspection of foodstuffs.

5.4. The VTH must provide nursing care skills and instruction in nursing procedures.

Nursing care skills are implemented and taught to the students by the professors in charge of the different clinical subjects, while rotating through the HVURC services; all students must participate in the care of patients: clinical exploration, sampling and follow-up of the hospitalized animals (medication, cleaning, feeding, walking, etc.).

5.5. Under all situations students must be active participants in the workup of patients, including physical diagnosis and diagnostic problem-oriented decision making.

For most of the **different types of clinical training at the HVURC services**, **there is a maximum of 7 for the group size of students**; but they are further subdivided to carry out the diverse specialty consultation or activities simultaneously and supervised by different professors (3-4/teacher) to guarantee an adequate hands-on training. In the Ambulatory Clinic, the maximum number of students per teacher is 2-3. Annex 5.5 summarizes the size of the groups in each clinical service at the HVURC.

In the Clinical practice for the core subjects Propaedeutics, Obstetrics and Reproduction with healthy animals at the HVURC there is a maximum of 10 students/teacher.

For Clinical practice in the core subjects Parasitology and Parasitic Diseases, Infectious Diseases, Epidemiology, Preventive Medicine and Sanitary Policy in the FVL laboratories or in external farms there is also a maximum of 10 students/teacher.

Students are directly involved in all the clinical procedures developed both in the HVURC and its extra-mural training farms (Annex 5.1.2). Specific activities depend on the area where the student is working, and at least include:

- First-opinion and specialty consultations, both medical and surgical, in all animal species:
  - To carry out the patient (or the population) anamnesis and complete physical examination, including neurologic, orthopaedic and ophthalmologic examination, depending on the clinical case.
  - To analyse the nutritional and welfare status in individual and population medicine.
  - To prepare the list of problems, differential diagnoses, working plan and therapeutic approach.
  - To effectively communicate with the client.
  - To make diagnosis procedures: fine-needle aspiration cytology, blood and urine sample collection, blood pressure, Schirmer's test, ocular tonometry, skin scrapings, electrocardiogram, faecal smear, vaginal cytology, etc.
  - To apply drug therapy through different routes (PO, SC, IM, IV).
  - To assist in other diagnostic and therapeutic procedures, such as endoscopic protocols, cerebral spinal fluid analysis, skin biopsy, chemotherapy administration, euthanasia, etc.
  - To put bandages and other immobilization techniques.
  - To write medical records and to elaborate reports.
- Hospitalisation and emergencies, both medical and surgical, in all animal species:
  - To perform first aid procedures.
  - To review the history, to evaluate the patient through physical exam and to actualize the clinical record.
  - To prepare the list of problems, differential diagnoses, working plan and therapeutic approach.

- To carry out routine diagnosis procedures in hospitalized animals: blood and urine sample collection, blood pressure, etc.
- To work in different therapeutic procedures: placement of IV catheters, fluid therapy (choice of fluid, dosage calculation and administration), drug administration by different routes, placement of urinary catheters, bandage, wound cleaning and dressing, and other post-surgical care procedures.
- To design and to administrate nutritional therapy for hospitalized cases.
- To assist in other diagnostic/therapeutic procedures, such as feeding tube placement, drainage tube placement and effusion drainage, blood transfusion, endotracheal intubation and mechanical ventilation, euthanasia, etc.
- To apply biosecurity procedures, and more especially in isolated patients.
- To effectively communicate with the client.
- To write medical records and to elaborate reports.

- **Surgery operating rooms** (on all animal species)
  - To participate in the preparation of surgeries (surgical material, room and patient), taking into account biosecurity rules and the concept of aseptic surgery. To perform by themselves easy surgical procedures (ovariohysterectomy, orchiectomy).
  - To assist the surgeon in complex surgeries (acting as assistant surgeon).
  - To suture the surgical wounds and to place bandages and drainages.
  - To be responsible for the immediate post-operative care of surgery patients.
  - To effectively communicate with the client.
  - To write medical records and to elaborate reports.

- **Anaesthesia** (for all animal species)
  - To evaluate the pre-anaesthetic status of the patient.
  - To discuss and to design the anaesthetic protocol to apply in every case and procedure.
  - To carry out all the complementary work, including fluid therapy administration and oral-tracheal intubation.
  - To administrate the anaesthetic protocol validated by the teacher.
  - To monitor the anaesthetic procedure induction, maintenance and recovery.
  - To assist the anaesthetist in taking decisions.
  - To write medical records and to elaborate reports.

- **Diagnostic Imaging** (for all animal species)
  - To collaborate with patient positioning.
  - To start ultrasound studies and to assist the teacher in completing those studies.
  - To discuss and to interpret results of radiological and ultrasound studies and to write reports based on diagnostic imaging.
  - To participate in CT scanning of patients.
  - To write medical records and to elaborate reports.

- **Necropsies** (in all animal species)
  - To review the animal individual/population history.
  - To make a complete and systematic necropsy, sampling and necropsy reporting discussing the macroscopic findings and determining their relationship with the clinical findings.

Students are directly involved in all the intra-mural clinical training. In the core subject Parasitology and Parasitic Diseases, students participate in the diagnosis of the common parasitic diseases through practical sessions in the laboratories, are exposed to real clinical cases and must work on sick animals, organs (liver, lung, heart, and tongue from food-producing animals discarded in the slaughterhouse) or biological specimens (blood, serum, faeces, skin, muscle) from diseased animals. Students perform the clinical examination of live animals and process the samples from the organs and/or biological specimens until they propose a suitable diagnosis, treatment and preventive measures.

Information on the hands-on involvement of students in the external farms for the core subjects Herd Health Management, Infectious Diseases, Epidemiology, Preventive Medicine and Sanitary Policy is provided in 5.3.

Within the daily activity in all the consultations, hospitalisation, anaesthesia and surgery rooms at the HVURC students participate in the rounds with the responsible teachers. While they rotate from station to station, they review the appointed cases and, if previously attended, they discuss the procedures that have already been performed and the approach for the next visit to the patient. At the end of the consultation, **students analyse and discuss with the teacher about the patients they have attended.** Beyond the daily rounds, the students are exposed to deeper discussion of clinical situations in their off-clinic days. All this information exchange is supported by evidence-based medicine that clinicians encourage students to manage.

During the rotation of the students at necropsies, they **analyse the diagnosis and therapeutic procedure performed** in each clinical case, and finally correlate this information with the lesions found during the necropsy.

In the core subjects Infectious Diseases, Epidemiology, Preventive Medicine and Sanitary Policy teachers encourage the proactive participation of the students during practical training (asking the farmers or veterinarians questions, etc. to get the necessary information on the diseases, possible risk factors, and so on). In some cases, students must prepare a written report on the activities they carried out during practical sessions.

After each practical session in the core subject Parasitology and Parasitic Diseases, students must write a report and use bibliography and supplementary materials available in the Virtual Campus. These written reports are discussed as a part of their oral examination.

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

The HVURC Reception area manages all patient-related administrative issues; counts on two members of administrative support staff for payments, appointments and records maintenance. After-hours, the intern veterinarians on duty are in charge of the opening of new records.

The first time that a patient comes to the HVURC, it is registered into the centre's computerised database with a unique code, including the owner's data (name, address, identity card, telephone, e-mail), and the patient's file (species, breed, age, sex). The diagnostic tests -from laboratory samples to X-Rays- have a unique registry code for identification (used for the entire life of the patient) that includes all the owner`s and animal's data. The forms to request tests use adhesive labels with this code to reduce the likelihood of error in the different services.

Each patient's record is kept in a folder along with handwritten clinical data and reports on the different tests performed. These record folders are stored, in numerical order, in the HVURC files, maintained by the Reception/Admission staff. Dead patient's records are kept in a separate file. In addition, the HVURC designed its own electronic record system for clients and patients including all the clinical data available so that they can be retrieved from any of the HVURC computers. Staff may consult the records of patients for teaching or research purposes and for their learning activities at any time; up on request, students can access the reports under the supervision of the veterinary PACS.

The Reception/Admission area is also in charge of answering phone calls (phone enquiries for clinicians are passed on to them), making appointments for the different specialty consultations in person or by telephone, and preparing the patient records for each day's appointments before the consultations begin.

Comments on Standard 5

The HVURC is well designed and has high quality equipment (radiology, ultrasound, echocardiography, endoscopy, surgical microscopes, anaesthetic appliances, dental equipment, diagnostic laboratory equipment, arthroscopy, etc.) that places it at the level of any veterinary hospital in Spain and is clearly superior to most private clinics in the area. The recent opening (2018) of an MRI Service will surely increase the number of referrals, both in large and small animals. The cases for cataract surgery will rise with the recent acquisition of a new microscope and phacoemulsification device for the ophthalmology service.

The normal schedule allows professors to fully develop the teaching activity and patient care, in all animal species, both first opinions and referrals. Moreover, there is an Emergency Service that guarantees small and large animals attention 24/7/365, with an on-call specialist.

The HVURC staff has a high level of expertise and qualifications that ensures the best performance: clinicians are well trained in their respective specialties, and continuing education is encouraged by means of placements in other centres, courses, seminars, etc. The Hospital staff participates in Postgraduate Internship Programmes of specialisation in large and small animal clinical and Continuing Education courses for Veterinarians and Physicians.

In every area, HVURC clinicians are members of the respective professional associations (AVEPA: Spanish Association of Veterinary Small Animal Specialists, ANEMBE: National Association of Bovine Medicine Specialists, SEMIV: Spanish Association of Specialists in Veterinary Medicine, SECIVE: Spanish Association of Veterinary Surgeons, SEOVE: Spanish Association of Veterinary Odontologists, AEVEE: Spanish Association of Veterinary Equine Specialists), in which they actively collaborate. Some of them occupy posts on their boards, scientific committees, or reference groups for publications, while others occasionally act as President. It is quite common for these associations to request help from HVURC clinicians to collaborate in their annual congresses.

As regards Food Hygiene and Food Safety, the main activity developed covers the training needs of students.

A recently signed agreement with the Equine Federation of Raid Horses will surely increase the equine caseload.

The start-up of the *Gayoso Castro* farm will mean an intensification in the number of livestock cases for all the subjects that use these species.

Suggestions for improvement on Standard 5

It would be helpful if the legal framework allowed the HVURC to hire more personnel. In this way, some services could improve their effectiveness and new highly specialised fields might be offered, such as physiotherapy and rehabilitation.

Increasing the number of HVURC clinicians included in European or American professional boards as accredited specialists would be advantageous.

The necropsy ratio falls within the satisfactory range and the number of companion animal necropsies seems adequate, but it would be interesting to be able to increase those of cattle older than 36 months and horses; nevertheless, bio-security regulations related to BSE and the scarce number of horses around Lugo make it somewhat difficult.

Although we have an acceptable ratio for livestock clinical teaching, taking into account that Galicia is one of the most important livestock regions in Spain, we feel that more ambulatory clinic activities for farm animals would be useful.

We are also aware of the necessity to improve the management and diversity of clinical skills models/procedures in the laboratory in order to increase the proficiency of the students as well as animal welfare.

STANDARD 6:
LEARNING RESOURCES

Standard 6: Learning resources

6.1 State-of-the-art learning resources must be available to support veterinary education, research, services and continuing education. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to under graduate students.

Currently, almost all available information is in electronic format and very few printed documents are still used; if necessary they can be downloaded from the Virtual Campus or the website.

The USC has three support areas for learning resources, research and continuing education: Information and Communication Technologies Area (ATIC): http://www.usc.es/gl/servizos/atic/ Learning Technology Centre (CeTA): http://www.usc.es/gl/servizos/ceta/index.html; and the USC Library (BUSC): http://www.usc.es/gl/servizos/biblioteca/index.html.

As described below, these services guarantee students, staff and stakeholders access to State-of-the-art learning resources.

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

The BUSC includes the general library, eleven faculty libraries, and four interfaculty libraries distributed between the two campuses of the USC located in the cities of Santiago de Compostela and Lugo. The university libraries of Galicia form the *Bugalicia Consortium* whose purpose is to subscribe to the databases and the editorial packages of magazines and e-books: Web of Science, ScienceDirect, Scopus, Medline, Elsevier Freedom Collection, SciFinder Scholar, Wiley Online Library, Agris, Farmacopea Española, Asfa–Aquatic Sciences & Fisheries Abstracts, Greenfile, Earth, Atmospheric & Aquatic Science, etc. Access to electronic journals is carried out through *Pórtico* (http://sfx.bugalicia.org/san/az/). RefWorks is also available as a bibliographic manager.

The USC has an institutional repository, *Minerva*, that allows for the diffusion of its own scientific production (https://minerva.usc.es/xmlui/?locale-attribute=gl).

The main library of the *Campus Terra* is an interfaculty library called *Intercentros*, where the bibliographic collection of most of the campus faculties, including the FVL, is located. (http://www.usc.es/gl/servizos/biblioteca/busc/centros/intcentroslugo/).

This library has more than 100,000 documents. Its main thematic axis is the Agrifood sector, of which more than 90% is offered in free access. The collection of printed magazines is located in the periodicals archive and books, are distributed in different rooms depending on the subject. In addition to the services of a library, it provides others such as the preparation of guides and tutorials and courses for its users. The entrance to the library is free and services are free of charge for students, staff and collaborators of the USC.

The library staff is formed by 17 full-time people:

- 6 Librarians, with 1 director; 1 head of the procurement office; 1 cataloguer; 1 head of the information office and 2 training and reference librarians.
- 11 Library assistants, 9 of them working from Monday to Friday and the other 2 working on weekends and holidays. During exam periods two more people cover night shifts.

The opening hours of the library are:

- Monday to Friday: 8.30 a.m. – 21.30 p.m.

• Saturdays, Sundays and holidays: 10.00 a.m. – 19.30 p.m.

During exams periods (December, January, April, May, June and first half of July), the library remains open until 3.00 a.m.

The *Intercentros* **annual budget** appears in the table below:

Year	BUSC*	Journals**	Monographs***
2017	2,259,500.00 €	17,619.16 €	279.00 €
2016	2,204,916.00 €	17,741.60 €	6,897.17 €
2015	2,223,340.00 €	17,331.06 €	6,959.01 €

*Overall budget of the BUSC from which the participation fee is paid in the Bugalicia Consortium; **Annual subscriptions of specific veterinary journals; ***Acquisition of specific veterinary monographies, including study manuals.

Facilities and location: This library is a 10,000 m^2 building located between the FVL and the Polytechnic School of Engineering. It houses 1,642 study places -several of them adapted for users with disabilities- distributed in 5 reading rooms, 1 group work room, 1 periodicals room, 1 research room with 20 single work areas and 1 completely renovated (2016) training room (*sala e-Terra*) with 21 computers. There are also 20 online catalogue consultation posts and electronic resources and microfiche consultation devices. Finally, we must mention the different offices for the library staff.

The *Intercentros* equipment is composed of: 44 desktop computers, 6 laptops and 1 multifunction device (printer, photocopier, etc.) available to users. The number of computers is sufficient since most students and teachers use their personal tablets or laptops. The Wi-Fi network of the university can be used throughout the building. All rooms have a large number of electrical outlets (394 in total).

In relation to the **software for bibliographical search**, the BUSC uses *Millennium* an integrated management software that includes the catalogue of the library -called *IACOBUS*- in which users perform bibliographic searches (http://iacobus.usc.es/). This catalogue has a link to the bibliographies recommended in each subject (http://iacobus.usc.es/screens/course_gag.html).

The RefWorks bibliographic reference manager is another tool that they can use for free.

There are no subsidiary libraries, but it should be noted that students, teachers, etc. of the FVL have a library card that permits to borrow books from any library of the Campus of Santiago de Compostela (Medicine, Pharmacy, Biology ...) with a three-day maximum wait. Also, they can request the free reproduction of articles from the journals of the Santiago Campus collections, which are then delivered, in a few hours, to their email.

The IT facilities: The FVL has two computer rooms equipped with 44 PCs with the necessary software for teaching use, and an additional computer room with 30 posts in which students can work with their laptops and/or tablets. This is all located in the central pavilion. When students need to use a computer, they have free access to these rooms if they are not busy. There is 1 IT technician at the FVL for student and academic staff support.

The USC uses Moodle as e-learning platform. The Virtual Campus is managed by CeTA (see 6.1). There are 5 full-time people on the CeTA staff. Each year different training courses on the use of the Moodle platform are offered to the teaching staff (http://www.usc.es/gl/servizos/pfid/index.html).

All teachers use the Virtual Campus to enhance their teaching. They can share teaching materials and tasks with students, manage groups of students, perform evaluation tests, publish announcements, create discussion forums, etc. At the beginning of the course each subject has at its disposal an official virtual classroom, but in addition, the teachers can request the creation of new ones for different purposes.

6.3 The Establishment must provide students with unimpeded access to learning resources which include scientific and other relevant literature, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme, and have mechanisms in place to evaluate the teaching value of innovations in learning resources.

Veterinary books and periodicals: In the library room dedicated to Veterinary and Food Technology, users have 14,430 volumes at their disposal. Of these, 14,016 are directly related with the curriculum: 4,902 falls within the category of veterinary science, 3,309 in the category of animal production and 2,076 in food science, there are also numerous monographs about the basic subjects. As for magazines, the library subscribes to 36 specific veterinary magazines.

Veterinary e-books and e-periodicals: The portal of electronic services of the BUSC, *ReBUSCa* (http://sp.bugalicia.org/san/) provides access to the collection of electronic books and magazines. Users have access to 181 monographs directly related to this Degree. Of these, 85 falls within the category of veterinary science, 2 in the category of animal nutrition and 94 of food science; there are also numerous monographs on the basic subjects and sciences. As for e-periodicals, users can access many journals: 84 veterinary medicine, 78 food science, 7 dairy technology, 48 animal nutrition and breeding, 117 on fish farming and aquaculture journal and several journals on basic science subjects.

Other (e) books and (e) periodicals: With its own budget, the BUSC acquires 1,039 electronic books, 283 electronic journals and 23 databases. Also, the *Bugalicia Consortium* gives access to the most important collection of electronic resources by subscribing more than 9,000 journals with a high scientific impact, more than 18,000 monographs (including electronic books, standards and conference proceedings) and more of 10,000 full-text documents accessible from databases.

Students have different learning resources available:

- In addition to access to numerous bibliographies, both in paper and electronic format, they have access through the Virtual Campus to all the teaching material provided by the teachers.
- Throughout the year the *Intercentros* library provides training courses for students and academic staff that focus on the use of specific tools: RefWorks, Web of Science, Open Access, etc. Courses are also organized to facilitate the preparation and drafting of the TFG. Additionally and in collaboration with the subject "Food Technology I" the library offers a workshop called "Information management for veterinary students".http://www.usc.es/gl/servizos/biblioteca/busc/centros/intcentroslugo/formacion.html.
- The FVL has a LHC (see 4.3) where students have at their disposal low fidelity models and simulators with which they can repeatedly practice to develop their procedural skills.
- The area of Veterinary Anatomy makes a museum where different animal specimens are exhibited available to students. It also offers a bone loan service. Both are designed to facilitate learning.

6.4 The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the Establishment's core facilities via wireless connection (Wi-Fi) and from outside the Establishment via Virtual Private Network (VPN).

The accessibility to electronic learning resources: The entire *Campus Terra* has a wired intranet in connection with the Campus of Santiago de Compostela. In addition, all *Campus Terra* buildings have their own free Wi-Fi access for members of the university community (eduroam o WIFIUSC-WEB). All USC members are assigned a username and password to access the network services.

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

The ATIC Area (see 6.1) is responsible for managing these infrastructures and service.

To disseminate the procedures of access and use of learning resources to students. the first day of the first academic year, the FVL organizes a welcome session for new students. This meeting explains everything related to teaching and the support services of the university. Among other information, a brief explanation of how to access the Virtual Campus and how to manage the institutional e-mail address is provided. On this day they will also be presented to student tutors. These are one or two students from previous terms who have received an orientation course and get academic recognition for their participation (*Programa de Alumnos Tutores*). Their mission is to guide new students on everything they may need concerning university services and faculty organization (http://www.usc.es/es/servizos/oiu/modules/news2/news_0028.html).

The *Intercentros* library also organizes a Welcome Seminar aimed at 1st year students to present the services that they must know about and a guided visit of the library. It also offers numerous training courses that students can take at any time. Both the BUSC and the *Intercentros* library publish numerous guides and tutorials on the use of the library, resources, etc. on their websites. (http://sp.bugalicia.org/san/subjects/index.php)

(http://www.usc.es/gl/servizos/biblioteca/busc/centros/intcentroslugo/guias.html).

In addition the curriculum includes competences related to bibliographic searches that are used in different subjects, but especially for the TFG and EPT.

Regarding staff training, the USC Innovation Programme for Training and Teaching (PFID) (http://www.usc.es/es/servizos/pfid/index.html), organizes training courses related to the use of the Moodle platform, Office 365 and others according to professor´s needs.

Concerning the processes associated with the implementation and monitoring of the learning technologies different agents are involved. The Establishment has a Library Committee in which library staff, teachers, researchers and students are represented. This committee meets annually to decide the distribution criteria of the annual budget. Once the allocations are assigned, it is the professors and researchers responsibility to select the books to be acquired. As for the library`s own allocation, the librarians decide the acquisitions based on students` suggestions and the use of each resource, or the necessity to reinforce specific monographies. As for journal subscription, the FVL determines the ones that are most interesting, and it is the BUSC depending on its general budget, who decides what subscriptions to maintain. The CeTA is responsible for the supervision and updating of the available electronic platform for the Virtual Campus (currently Moodle). The ATIC area is responsible for the maintenance of all the IT equipment of the Establishment.

Comments on Standard 6

The USC has different areas in charge of maintaining and updating the learning support resources necessary to carry out the teaching activity. In this sense one has to mention the crucial role of the *Intercentros* library and the BUSC itself. These areas also offer workshops and training courses necessary to achieve the best use of the resources offered.

The policy of the FVL is to participate actively in all the proposed teaching initiatives and to organize annual training courses for teachers.

Suggestions for improvement on Standard 6

Increase the offer of training courses for students.

Encourage the teaching staff to diversify the offer of learning resources that complement the use of the Virtual Campus.

Extend the number of subjects who use the Clinical Skills Lab as well as the variety of procedures offered.

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STANDARD 7: STUDENT ADMISSION

Standard 7. Student admission, progression and welfare

7.1. The selection criteria for admission to the programme must be consistent with the mission of the Establishment. The number of students admitted must be consistent with the resources available at the Establishment for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.

The Undergraduate students do make their university studies at any Spanish university; therefore, all the public universities use the same access system based on a prospective student´s academic transcript from the last two years of their secondary schooling, and their University entrance exam (PAL results) (PAU; see 7.4).

The FVL receives a limited number of new students every year. This number (110) must comply with that established in the officially approved curriculum. Each year, the Faculty Council, proposes (to the USC Government Board) the number of places to be offered. If approved, it is sent to the Inter-University Commission of Galicia (CIUG). This institution has the authority to decide, but it usually accepts the USC proposal.

The number of new-admission students is based mainly on available resources of personnel, buildings, equipment, animals and animal-derived materials that must be sufficient to guarantee the training of the students and to ensure animal welfare. In relation to the conditions necessary for biosafety, the number of new students admitted has to be compatible with maintaining an appropriate level of biosecurity in all activities. The demand for veterinary graduates in the labour market is also considered.

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

Type of students	2016/2017	2015/2016	2014/2015	Mean
With financial aid	37	36	39	37.33
Standard	65	71	72	69.33
Total	102	107	111	106.67

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

Year of programme	2016/2017	2015/2016	2014/2015	Mean
First year	106	108	116	110.00
Second year	130	140	137	135.67
Third year	130	135	131	132.00
Fourth year	114	111	101	108.67
Fifth year	218	154	120	164.00
Total	698	648	605	650.33

Table 7.1.3. Number of veterinary students graduating annually*

Type of students	2016/2017	2015/2016	2014/2015	Mean
With financial aid	24	26	15	21.67
Standard	59	41	23	41.00
Total	83	67	38	62.67

*The current "Degree in Veterinary Medicine" replaces the previous curriculum (Licenciatura). This new Degree was gradually introduced from the 2010/2011 academic year while the Licenciatura courses were extinguished in parallel. During the period 2010/2011 to 2013/2014 both curricula coexisted. Since 2014/2015, only the students of the new Study Plan received teaching and the Licenciatura students were only allowed to take the exams of the pending subjects, so that they finished: 138 (2014/2015), 71 (2015/2016) and 19 (2016/201)7. These students were not included in the table since they did not receive any teaching

Table 7.1.4. Average duration of veterinary studies

Duration	% of the students who graduated on 2016/2017
5 + 0	50.6*
5 + 1	39.8
5 + 2	9.6
5 + 3 or more	0

* Including students coming from the old curriculum

Table 7.1.5. Number of postgraduate students registered at the Establishment

Type of students	2016/2017	2015/2016	2014/2015	Mean
HVURC:	22	22	22	22
Interns	16	16	16	16
Residents	0	0	0	0
Others (With financial aid)	6	6	6	6
Master programmes:	1	2	11	4.67
Master's Degree in Medicine and Veterinary Health Research	1	2	11	4.67
PhD programmes:	59	50	25	44.67
PhD Programme in Basic and Applied Research in Veterinary Clinics	23	18	9	16.67
PhD Programme in Veterinary Medicine and Health	36	32	16	28
Specialization courses:	16	16	16	16
Postgraduate course in improvement in healthcare activity in a veterinary hospital	16	16	16	16

7.2 In relation to enrolment, the Establishment must provide accurate information in all advertisements regarding the educational programme by providing clear and current information for prospective students. Further, printed catalogue and electronic information must state the purpose and goals of the programme, provide admission requirements, criteria and procedures, state degree requirements, present Establishment descriptions, clearly state information on tuition and fees along with procedures for withdrawal, give necessary information for financial aid programmes, and provide an accurate academic calendar.

Updated information for prospective students can be obtained by different routes:

- USC website (http://www.usc.es/gl/perfis/futuros/index.html), for current information related to admission (requirements, criteria and procedures), courses, scholarships and grants (nationals and regionals) and also students' welfare.
- USC Information Office (OiU) (http://www.usc.es/es/servizos/oiu) is a transversal service that leads to different information useful for students, for example the pre-registration process and its documentation and associated deadlines
- FVL website (http://www.usc.es/gl/centros/veterinaria/index.html), for information about the curriculum, syllabi, academic and support staff; schedule and a general description of the Establishment.

Prospective students also can request specific information through the "*Do you have any question about the Faculty?*" (http://www.usc.es/gl/centros/veterinaria/buzon_informacion.html) linked to FVL website. The e-mails decafvet@usc.es (FVL secretariat), or oiu@usc.es (OiU) also can be used.

For student carrying on the last two years of their secondary education the USC has designed the programme called *A Ponte* with the aim of promoting studies, in which the aforementioned student tutors (see 6.4) collaborate. It includes informative and dissemination activities, visits and lectures in secondary schools, participation in fairs and teaching halls, open days to visit the FVL, university orientation days and a Summer Science Campus (*Xuvenciencia*). In addition, once the PAU test results are published in June (see 7.4), the USC invites the best students of the general phase to participate in a ceremony of recognition in which the University is presented and prospective students are provides with helpful information.

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

The information about EAEVE, ESEVT FVL' status and last SER and Visitation Report can be easily accessed by using the following links found on the FVL homepage:

• EAEVE Website

(http://www.eaeve.org/about-eaeve/mission-and-objectives.html)

• ESEVT Establishments' status

(http://www.eaeve.org/fileadmin/downloads/establishments_status/EAEVE_Establishments_Status_November_2017_approved_by_ExCom_on_29.01.2018.pdf)

• Self-Evaluation Report and Visitation Report

(http://www.eaeve.org/esevt/ser-and-visitation-report-of-visited-establishments.html)

• Suggestions, Comments and Complaints regarding compliance of the Faculty with the ESEVT standards (for students)

(http://www.usc.es/gl/centros/veterinaria/eaeve_gal.html).

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

As mentioned elsewhere, **all public universities apply the same admission procedure for students and FVL does not require any additional exam**.

Selection criteria. Access to the degree programmes in the Galician University System (SUG) falls within the competence of the CIUG, who publishes all the information, instructions and management associated with the process through the so-called *Plataforma Nerta* (https://www.edu.xunta.es/nerta). This information is also available on the USC website (http://www.usc.es/gl/matricula/admision.html). Briefly, after finishing their Secondary School studies, students must pass the University Access Exam (PAU), which is the same test for all public universities in Galicia. Access to the USC Veterinary Degree is regulated by a *numerus clausus* system: a certain admission rate is established based on the number of students to be admitted (110) and the number of students demanding access. The PAU includes two phases: a general one (which is compulsory for all students; maximum 10 points) and a specific phase with subjects related to their area of interest (which is voluntary and allows a student to better his/her average to reach a maximum of 14 points). Considering the high score needed to access the Veterinary Degree, all students must pass both phases. The final score is calculated according to the following formula:

Admission score = $0.6*NMB + 0.4*CFG + a*M1 + b*M2$; where,

NMB = Average score corresponding to grade point average from the last two years of Secondary School.

CFG = PAU general phase mark;

M1, M2 = Two best scores of the PAU specific phase subjects;

a, b = coefficients weight of the specific phase subjects.

In the case of international students with studies equivalent to the Spanish Secondary School degree, the item (0.6*NMB + 0.4*CFG) is replaced by the average grade of their Secondary School grade point average. However, there is the possibility to pass only the general phase, only the specific phase or both (UNED: *National Distance Education University* is responsible for performing these tests). Students who wish to pre-register in degree programmes regulated by a *numerus clausus* system (such as the Veterinary Degree) are encouraged to complete the specific phase. The average admission score of new students for the three terms considered shows a constant increase: 10.79, 10.99 and 11.18 (on a 14-points maximum scale).

In addition to the standard procedures, a certain percentage of places are reserved for applicants from special collectives: 1% for university graduates, 5% for disabled people (with a 33% or higher degree of disability), 3% for high-level and high-performance athletes, 2% for over people 25 and 3% for people over 40. These percentages are mandatory in all USC faculties.

Most students are enrolled full time (60 ECTS), which is mandatory for first year students. However, if working or personal circumstances occur, students can be authorized to enrol part time (50% of the ECTS).

Policy for disabled and ill students. 5% of admission places are reserved for them provided they reach the minimum scores required. They must present an official certificate showing they have a 33% or higher degree of disability. In attention, they may apply for part time enrolment. If needed, alternative teaching systems will always be considered to ensure the acquisition of the skills. The Service of Participation and University Integration –SPIU- (http://www.usc.es/gl/servizos/sepiu/integracion.html) is concerned with channelling and promoting policies for the incorporation and integration of students with special needs. In general terms, these services include technical and human resources, curriculum adaptations, information about specific scholarships and volunteer programmes and labour insertion. This information also appears in http://www.usc.es/gl/servizos/saee/aol/index.html and http://www.usc.es/campusterra/es/orientaci%C3%B3n-e-inserci%C3%B3n-laboral.

The *Bal y Gay* students residence on Campus Terra, is adapted for students with physical disabilities and also has a complete room adapted for people with special needs (accessible with wheelchairs; http://www.usc.es/es/servizos/sur/residencias/balygay/servizos.html). Moreover, the bus company selected by USC to carry out extramural practices (visits to slaughterhouses, farms, companies, etc.) has vehicles adapted if necessary, although a real need has never occurred.

Composition and training of the selection committee. As said above, there is no specific selection committee for student admission.

Appeal process. In relation to prospective students, unsuccessful applicants and those that disagree with their marks can address their appeal to the examining board for revision (http://ciug.gal/reclamacion.php).

Advertisement of the criteria and transparency of the procedures. PAU results and student applications are considered in the standard university admission procedure which is fully advertised and transparent. All the related information is published online (http://www.usc.es/gl/servizos/oiu/acce.html). Results of the admission procedure are also communicated online at the same time for all the public universities of Galicia, and personally to all the applicants (https://www.edu.xunta.es/nerta/alumnado/).

Description of the admission procedures for full fee students.

Not applicable.

7.5. The Establishment must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully, including consideration of their potential to meet all the ESEVT Day One Competences in all common domestic species (see Annex 2).

The essential purpose of the Establishment is that its graduates reach a satisfactory standard and acquire all Day One Skills. Limiting the admitted number of students to 110 responds to the available resources: personnel, facilities, equipment and also ensures the welfare of animals used for practices and general biosecurity (see 7.1).

On the other hand, the syllabi of the Veterinary Degree have been planned progressive and sequentially, so that the skills and competencies that students acquire have increasing levels of complexity. To address these contents, professors employ different types of sessions in which they adjust specific teaching methodologies. Also, in order to guarantee student autonomy and, at the same time, sufficient attention, the teaching sessions are adapted to different number of student groups (80, 20, 10 or 7 students).

Finally, the FVL is provided with control systems: the GTCS, and the QCC, that continuously monitor this process, and in which teachers and students participate. Yearly, the development of Veterinary Degree is monitored, and when they detect any incident they determine how to correct the error (see 11.1).

The prospected number of new students admitted by FVL for the next 3 academic years will be of 110 per year, as established by the USC.

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

Not applicable

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

For a **student with special educational needs**, teaching and evaluation methodologies should be designed to ensure that they acquire the necessary skills. The SPIU includes technical resources and personnel who advise and assist in the curriculum adaptation. It also provides information about specific scholarships and volunteer programmes and labor insertion. In the case of students with illness or a minor disability, small adaptations can be made. Up to now it has not been necessary to use more complex resources (see also 7.4).

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

The progression criteria and procedures for all students establish that new students must pass at least one subject during their first year. Otherwise, they can enrol again but must pass a minimum of first year 30 ECTS (on a full-time basis) or 15 ECTS (part time). If they do not reach this goal, they will not be able to continue the same study programme at the USC for the following five academic terms.

As determined by the Resolution of June 13th of 2011 (DOG, 17th July 2012), which regulates "Student continuance", the enrolled students have a maximum of four ordinary official exam

period for each subject, with two evaluation opportunities per year. Nevertheless, one waiver without cause will be admitted for each subject. In addition, if there exists a case of force majeure or any exceptional situation, the student could request for that exam period not to count in the total. In the fourth one, the students who attended the previous exam period may request to be assessed by a committee. The Resolution of December 3rd of 2014 (DOG, 10th December 2014) establishes the special circumstances for which a student may ask the Rector for permission to be allowed to have a fifth final retake exam period.

Conditions of enrolment in the subjects, Hospital Rotation, EPT and TFG; the student must have passed a minimum of 75% ECTS to be enrolled in EPT. The TFG cannot be defended until all the subjects of the Degree are passed.

There are **remediation and support strategies for students who do not perform adequately**. For those who need learning assistance, tutorial sessions are perhaps the best way to provide direct personalized help. The lecturer offers orientation and advice on all teaching aspects which may improve the learning process. All academic staff have specific office hours that are mandatory (minimum six hours per week). Once the first semester assessment has been completed, the USC's Quality Office sends to the FVL the list of students who did not pass any subject to carry out the corrective measures.

As for **advertisement to students and transparency of these criteria/procedures**, all the above-mentioned information related to enrolment, policy for disabled students, progression, etc. can be accessed through the USC website, and especially at the OiU webpage.

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

Rate and main causes of attrition. We can consider two different dropout rates: the one for students who abandon the programme during the 1st year -ranges between 4.85 and 7.84- and one which takes students who drop out later into account (mean 7.46). In both cases, these FVL values are below the USC average (16.46 and 10.36 respectively) and place the Veterinary Degree among the 5 with the lowest dropout rate. Attrition rate is related to a wide variety of academic and non-academic reasons. Due to the high percentage of students from outside Galicia (45.94% was the average of the three courses), some of our students transfer to other Veterinary Faculties closer to their home due (homesickness). Not learning to change secondary school study habits and how to organize their time can be hardy cause academic performance to drop and cause students to quit the programme. Some students leave because the Veterinary Degree does not meet their expectations. Finally, the cutbacks in scholarships in general may have increased university attrition rates in the past years.

Any amendment of procedures related to student admission fall out of the FVL competences. Autonomous Government and USC General Governance are the agents in charge.

7.10. Mechanisms for the exclusion of students from the programme for any reason must be explicit.

As it was indicated in 7.8, academic failure may be a cause of student non-continuance, though the non-payment of taxes or a disciplinary sanction may also result in the loss of student status.

7.11. Establishment policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.

The FVL policies for appealing in relation to prospective students were described in 7.4. Besides, there are some other ways to complain:

- **USC Office of Analysis of Complaints** (http://www.usc.es/oar) channels and responds to suggestions and complaints made by the students in relation to the functioning of the teaching, administrative and support services of the USC. It also offers to the university community a system open to opinions and suggestions to improve academic management and, by extension, the public service provided by the university. In addition, this office analyses the actions carried out annually and makes global improvement proposals. Its results are collected in an annual report that is presented to the university community. The USC General Secretary Office ensures that proposals for improvement be sent to the entities involved in their implementation.

- **USC Ombudsman** (http://www.usc.es/valedor) is responsible for defending and protecting the rights of university students and for ensuring that they fulfil their obligations. All students may present their problems, complains, etc. directly (valedor@usc.es). This figure also acts as mediator and conciliator when required by any member of the university community.

- **FVL website** provides a web link *Incidents and suggestions or claims* that any member can use (http://www.usc.es/gl/centros/veterinaria/suxerencias_reclamacions.html). Once received, the Dean's Executive Board, will analyse, resolve and, if it is the case, inform the related entity.

- In addition, the **GTCS meetings** (see 3.1) are an excellent tool for students to transmit their complaints and suggestions.

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

In addition to the services previously described in 7.2 or 7.11, and learning resources described in 6.1, **USC provides its students with:**

- The **School Insurance** covers students under 28 against school accidents, illness or family misfortune, granting them medical, pharmaceutical and economic benefits. A health, accident and liability insurance policy is included in the registration fees.

- The **University ID Card** (www.usc.es/es/servizos/atic/tui/protocolo.html) allows the student to access various services such as book loan, access to university facilities, car parks or discounts in cultural or commercial activities.

- The **Student Virtual Secretariat** provides all the administrative procedures that they need to carry out, like registration, modification of enrolment or sending academic transcripts to mobile devices.

- The **USC Office of Student Aid and Services** (http://www.usc.es/es/servizos/axudas/) centralizes the management of scholarships, grant and requests from the university residences, etc.

- The **USC Participation and Integration Service** (http://www.usc.es/es/servizos/sepiu/) coordinates the offer of voluntary activities and social participation. It promotes respect for diversity, the development of active policies of incorporation and integration of students with special needs and promotes equality among all members of the university community.

- The **USC Sports Office** (http://www.usc.es/gl/servizos/deportes/index.html) plans and manages the activities and sports facilities. The students can participate in different competitions or sports leagues of basketball, handball, football, rugby or volleyball.

- The **USC Area of Culture** (http://www.usc.es/gl/servizos/cultura/): offers numerous and varied cultural activities which take place in different internal or external centres.

- The **USC Modern Languages Centre** (http://www.usc.es/es/servizos/clm): offers courses and promotes the learning of languages among the members of the university community.
- The **USC Office of Gender Equality** (www.usc.es/oix) seeks to achieve equality by assuming the principles of dignity, equality and gender equity.
- The **USC Sustainable Development Plan** promotes actions and encourages the involvement of the whole university community. Student collaboration is encouraged through fellowships (http://www.usc.es/plands/seccions/info_xeral/info_xeral.htm).
- The **USC International Relations Office** (http://www.usc.es/es/servizos/ore/) is responsible for national and international mobility programmes.
- The USC has two **offices** which manage and offer various formative activities focused on the search **for employment** or the realization of courses and training programmes (http://www.usc.es/gl/servizos/saee/aol/index.html; http://www.usc.es/es/investigacion/avte)

Every year the faculty organizes for its students several meetings and briefings on career guidance and job opportunities (see 3.6 and 6.4), in which the participating professionals bring their experience and advice.

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

The USC Ombudsman (http://www.usc.es/valedor) is responsible for defending and protecting the rights of university students and for ensuring that they fulfil their obligations. All USC students may present their problems, complains, etc. directly (valedor@usc.es). That person also acts as mediator and conciliator when required by any member of the university community. The Dean's Executive Board attends to and tries to solve minor conflicts on a day-to-day basis.

7.14. Mechanisms must be in place by which students can convey their needs and wants to the Establishment.

The FVL website provides a link *Incidents and suggestions or claims* that any member can use (http://www.usc.es/gl/centros/veterinaria/suxerencias_reclamacions.html). Once received, the Dean's Executive Board, will analyse, resolve and, if it is the case, inform the related entity. Again, the meetings of GTCS are an excellent tool for students to transmit their needs.

7.15. The Establishment must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the Establishment with the ESEVT standards.

There is a student link on the EAEVE part of the FVL website which can be used to address any comment regarding the Faculty`s compliance with ESEVT standards:

(http://www.usc.es/gl/centros/veterinaria/eaeve_gal.html).

Comments on Standard 7

The number of admitted students, though determined by the USC, is analysed every year by the FVL in order to verify and maintain an adequate degree of hands-on training and teaching quality.

Our current curriculum is quite recent, so more time is probably needed for a proper evaluation of the data as well as other conclusions regarding the progress of students. Nevertheless, preliminary results show a rational average time to complete the Degree (between 5.0 and 5.64 years).

The studies in our establishment are demanding, but as the veterinary profession is very vocational, our students are sufficiently motivated. The environment is conducive to studying, and

they also have a good and sound academic background, all of this has a positive influence on the outcome.

The procedure of monitoring the degree performed yearly is a highly effective tool of the System of Quality Assurance of the USC, which allows has to detect deficiencies and to adopt the most appropriate corrective measures. In addition, in this work all the stakeholders are involved: teachers, students and administration and services staff.

Suggestions for improvement on Standard 7

A rational approach of veterinary education in relation to the requirements of profession and society continues to be necessary. This means that external stakeholders must also contribute to this process in order to enrich the Degree programme with a more global vision, (Official College of Veterinarians, Public Administration, or private and professional companies).

A control system of student admission in all the Spanish Veterinary Faculties based on a critical analysis would be desirable. Relaxing the USC regulations to facilitate a student's ability to combine his studies with gainful employment is a measure that favours those with fewer resources and that might reduce the dropout rate.

STANDARD 8:
STUDENT ASSESSMENT

Standard 8. Student assessment

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

The learning assessment process in the FVL is regulated according to the PC-11 process of the SGIC extensive manual which establishes how to evaluate the achievement of the objectives and the acquisition of the competences by the students. The objective is to guarantee objectivity and equity in assessment.

The curriculum establishes a general evaluation criterion for all subjects so that the assessment of each student will be done through continuous evaluation and final exams.

The syllabi of all subjects are annually reviewed by the academic staff in charge and approved for the next academic year both by the Department Council and by the GTCS before being addressed by the Faculty Council.

The Faculty Council's mission in the assessment process is to approve the syllabi as regards the inclusion of assessment timing, methodology and grading criteria, and to schedule exams with the consensus of the student representatives.

This strategy is part of the SGIC transparency plan to reflect on how to better these documents and to ensure consensus in the FVL on University policy as well as their public display. In addition, there are some specific USC rules of the implemented by different laws:

- The Resolution of June 15th, 2011 (DOG, 21st July 2011), which regulates the assessment of student academic performance and the revision of USC marks". This Resolution establishes that the calendar must prevent the students from taking more than one exam of subjects from the same term/ within 24 hours. The FVL must decide on the procedure to guarantee the right of the students to take official exams of subjects corresponding to different terms.
- The Resolution of June 13th of 2011 (DOG of 17th July 2012), which regulates student continuity (see 7.8).

Specific methodologies for assessment

As a general reference, minimum and maximum values are proposed, so that continuous assessment activities have a weight of not less than 20% of the grade and the final evaluation activities do not exceed 80%. Most subjects combine continuous assessment of the student's day-to-day activity based on different methodologies, together with a final written exam.

Different methodologies evaluate theoretical knowledge, pre-clinical practical skills and clinical practical skills, as detailed below.

- Assessment of **theoretical knowledge** is mainly based on written exams, which include multiple-choice questions, short answer questions and/or essays. Theoretical knowledge is also evaluated through continuous assessment and evaluation of supervised works.
- **Pre-clinical practical skills** are primarily evaluated through continuous assessment based on written reports, supervised work and oral exams. Depending on the subject, practical exams are sometimes performed on healthy animals, organs, cadavers or in the laboratory. As a general rule, attendance and a positive evaluation of practical skills are mandatory.
- Assessment of **clinical practical skills** is fully explained in 3.6.

8.2. The assessment tasks and grading criteria for each unit of study in the programme must be clearly identified and available to students in a timely manner well in advance of the assessment.

The academic staff describe the evaluation method for each one of the activities carried out by the student in the syllabus: The typology, method and grading' scale is included, so that students can predict the consequences of their performance and control the result of their evaluation. These aspects are part of the assessment methodology included in syllabi which are posted on the website as well as on the Virtual Classroom of every subject. http://www.usc.es/en/centros/veterinaria/titulacions.html?plan=14105&estudio=14106&codEstudio=13664&valor=9

The transparency of the assessment criteria and procedures is guaranteed by the Resolution of June 15th, 2011 (DOG, 21st July 2011), amended by the Resolution of April 5th, 2017 (DOG, 8th May 2017), which regulates the assessment of student academic performance and the revision of the grading system of the USC. These Resolutions indicate that the syllabus of each subject must describe the aspects to be assessed, the criteria and the methodology and should also include the grading system for the final mark. (http://www.usc.es/gl/centros/veterinaria/calidade.html).

Both laws also establish that the schedules, dates of exams and subject programmes must be published before the 30th of May or the beginning of the enrolment period for the next academic year. It is stated that the publication of exam results should be communicated to students within a reasonable time (at most 15 calendar days after examination) together with the dates for exam revision. Finally, the protocol to make a formal complain about the result of an evaluation is part of the cited resolutions (and explained in 8.4)

The complete exam calendar is available on the website well before the beginning of the academic year http://www.usc.es/gl/centros/veterinaria/ExGrado.html.

8.3. Requirements to pass must be explicit.

The process of awarding grades is also officially regulated by the USC academic standards (Resolution of June 22nd, 2007 by which the academic management rules are modified; DOG, 2nd August 2007). Grades must be expressed as numbers, to which their corresponding qualitative grade is added (Failing Grade: 0-4.9, Passing Grade: 5-6.9; Grade B: 7-8.9; Distinction: 9-10). The cut-off score is 5. Likewise, the mention "*Matrícula de Honor*" (Excellent) can be awarded to those students with a grade equal to or higher than 9.0; however, national norms dictate that these distinctions cannot exceed 5% of the number of students enrolled in a subject, unless there are fewer than 20 enrolled) (http://www.usc.es/es/normativa/xestionacademica/index.html).

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

If a student does not agree with a final exam revision outcome, which is mandatory for any further appeal, the students can refute their grades before the Dean. The Dean, in view of the claim, will decide on its admission. The non-admission of a claim must be sufficiently justified and can be appealed by the student before the Rector. If the Rector decides not to admit it, this resolution have exhausted its administrative process.

If the claim is admitted, the Dean will notify the professor responsible for the initial marking of the exam, who can present allegations within three working days. In view of the allegations, and prior to hearing the student, the Dean may decide on the dismissal of the claim which may once again be appealed before the Rector. If the Dean accepts it, he will proceed to appoint a commission, presided by him/herself or the person in whom he/she delegates, including three professors and one student who is allowed to participate, but not vote, during the proceedings. The specific procedure is fully described in the SGIC (Chapter 7. PC-10) in accordance with the

Resolution of June 15ᵗʰ, 2011 (DOG, 21ˢᵗ July 2011) and the Student Statutes (Spanish Royal Decree 1791/2010, 30ᵗʰ December).

8.5. The Establishment must have a process in place to review assessment outcomes and to change assessment strategies when required.

The whole procedure complies with the curriculum, and the accreditation of this study programme was renewed by the ACSUG (11/07/2017). The system works as follows:

- As per the official dates approved and published in the USC calendar, the Subject Coordinators, together with the other teachers in charge of content, will update the evaluation criteria and the assessment system in the assigned subjects. The update is based on the existing regulations, previous evaluation criteria and other inputs from the different groups of interest. The modifications are taken to the Department Council for their approval.
- Afterwards, the Vice-Dean of Academic Coordination contacts all Semester Coordinators to start a process to check that the syllabus complies with the curriculum (including the assessment strategy). The syllabi pass a last review by the Quality Control Committee and are finally approved by the Faculty Council.
- After approval, all the information is published on the website before the 30ᵗʰ of May or at least before the beginning of the registration period for the next academic term, as required by the Resolution of June 15ᵗʰ of 2011 (DOG of 21ˢᵗ July 2011).

It is the responsibility of the Subject Coordinator and the Semester Coordinator to verify how professors apply the assessment system. To comply with the procedures and assessment criteria approved by the Faculty Council, when anomalies are detected (even when there are no student complaints), the Subject or Semester Coordinator will inform the professor in charge of the anomaly detected and will communicate it to the QCC. The latter will monitor the incidence in the following evaluations to ensure compliance with the defined assessment system. The specific procedure is fully described in the Chapter 7, PC-11 of the SGIC extended manual.

8.6. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.

The competences and learning outcomes that the student must acquire, as well as the assessment system used, are fully described for each subject in its syllabus.

In the GTCS meetings, a reflection is made on the development and results of the training process. Students contribute with their perspectives, suggestions and criticism which help in the eventual correction of the deficiencies detected or to introduce any feasible improvements. The deviations between the expected results and those obtained are analysed as a basis for the subjects to consider how to modify their assessment system.

8.7. Students must receive timely feedback on their assessments.

The assessment system is an essential part of the learning process and the starting point for feedback post-assessment. In accordance with the Resolution of June 15ᵗʰ, 2011 (DOG, 21ˢᵗ July 2011), exam revision should work as a useful tool for students to know their knowledge level and weaknesses. The review period will take place no later than 10 days after marks are posted, and the exam revision can be individual or collective. The teacher will solve any difficulty and indicate improvement strategies.

For students who need learning assistance, tutorial sessions are perhaps the best way to offer them direct personalized help. The professor offers orientation and advice on all teaching aspects which may improve the learning process. Furthermore, the University annually makes an official announcement for students to request extra tutorial support. It is meant to help students who have

a maximum of 18 ECTS left or three subjects left (excluding TFG, Hospital Rotation and EPTs) and have used at least two exam periods in each one, to overcome the subjects they have special difficulties in (see also 7.8).

8.8. Assessment strategies must allow the Establishment to certify student achievement of learning objectives at the level of the programme and individual units of study.

The curriculum has been designed on the basis that all the competences are addressed by the different subjects.

The assessment system for each subject, described in the syllabi, certifies that the student reaches the committed learning outcomes, which are also supervised by the GTCS, so that these outcomes are guaranteed at the programme level (curriculum) and at the level of the study units (subjects).

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

Day-One Skills are assessed during the Degree programme by the specific in which they are developed, as reflected in the syllabi which fully describe the methodology to ensure students reach a minimum level of competence. The core clinical rotations, the Hospital Rotation, the EPTs, as well as the TFG, which are taken by the students in the last semester, use specific methodologies detailed below since they work most of the Day One Competences in depth. The Regulation and all information on evaluation criteria are fully explained on the website: http://www.usc.es/gl/centros/veterinaria/practicas_tuteladas.html (for the Hospital Rotation and EPTs) and http://www.usc.es/gl/centros/veterinaria/traballofindegrado.html (for TFG).

In short:

- The assessment methodology used for the Hospital Rotation is based on a logbook, which includes all signatures student must obtain as they complete the different rotations (Annex 3.5.2), together with a final practice report. To obtain these signatures, the student has to follow a pre-established agenda through the Services of Internal Medicine, Surgery, Image Diagnosis, Pathologic Anatomy and Large Animal Service (two days in each, plus a 24h on-duty service). The characteristics of the final practical training report, as well as the comprehensive grading of this subject are detailed in the syllabus.
- The assessment methodology used for the Clinical EPT and Non-Clinical EPT is based on the corresponding practical training report submitted at the end of the practical training placements, together with the report of the professional tutor (Annex 8.9.1). The characteristics of the practical training report, as well as the comprehensive grading of this subject are detailed in the corresponding syllabi.
- The TFG will be assessed by a specific examination committee on the basis of the quality of the documentation submitted by the student, the defence of the work and the tutor report. The characteristics of the TFG, as well as the comprehensive grading of this subject are detailed in the syllabus.

Comments on Standard 8

Our assessment system has been approved by the ACSUG (accreditation renewed 11/07/217). As per the renewal report the FVL received from the ACSUG, the Establishment is working on the recommendations:

- To monitor the subjects with lower success and performance rates, and to initiate actions to raise these rates.
- To carry out a continuous analysis on the acquisition of competences and the obtention of learning results in the different subjects. For example, making a table that correlates the competences from each subject with the contents and criteria of evaluation would make it possible to clearly demonstrate the evaluation of the acquisition of these competences.

Within the 2014-18 Strategic Plan of the FVL, there are two actions related to this standard:

- Improvement of the level of specification of the assessment criteria and the grading of the different elements of evaluation in the syllabi of the subjects.
- Improvement of the procedure for preparing the exam and classroom calendar.

Suggestions for improvement on Standard 8

Work is being done to create a signature portfolio for the evaluation of competencies, like the logbook used for the Hospital Rotation.

Professors are encouraged to participate in specific workshops such as "Assessment based on competences" as well as to present/design Improvement Actions in the framework of the Strategic Plan of the FVL.

STANDARD 9:
ACADEMIC AND SUPPORT STAFF

Standard 9. Academic and support staff

9.1 The Establishment must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with the national and EU regulations. A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching. Most FTE academic staff involved in veterinary training must be veterinarians.

It is expected that greater than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.

By law, in Spain, all university teachers involved in the different subjects must be accredited either by a national or regional quality agency (ENQA members), in the corresponding subject areas. This is done by considering their teaching and research activities. Only after obtaining the accreditation, it is possible to attain a teaching position in any of the different categories. At the FVL all members of the academic staff meet the legal requisites which **guarantee that they comply with the national and EU regulations,** and hence are **appropriately qualified and prepared for their role in any particular subject.**

In relation with the ongoing-learning process for the teaching staff, the USC has a consolidated **formal training programme** which has been in place for many years called Innovation Programme for Training and Teaching (PFID). The main objective of the PFID is to establish a training framework that allows them to acquire new strategies and improve the teaching, research and management skills necessary for their professional rile at the university. PFID offers structured training in the following pillars:

- Information and communication technologies applied to teaching.
- Teaching-learning strategies.
- Assessment.
- Tutoring and guidance.
- Professional development: research, management, languages.

PFID also promotes the recognition of training activities aimed at improving innovation and teaching practices that academic staff carry out in the Centres and Departments (http://www.usc.es/es/servizos/pfid/).

The FVL has established a Biosecurity Committee to review and publish operational policies and procedures, and to train and inform all the members of the Establishment on biosecurity issues. Specific training in biosecurity for support and teaching staff depends on the Risk Prevention Service (http://www.usc.es/en/servizos/sprl/index.html). This Service is also in charge of the Establishment's self-protection plan, keeping up the emergency teams updated, annually conducting a training talk for the implementation of the emergency plan and performing an emergency evacuation drill.

The Quality Control Committee acts in accordance with the QA procedures as stated in the SGIC; all academic staff is informed and involved in its different activities: monitoring report, improvement actions, etc. Some of them are elected as representatives in this committee.

In the FVL, about 70% of the academic staff involved in veterinary training are qualified veterinarians (Table 9.2.2).

9.2 The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the Establishment's mission.

Academic staff needs are determined by the departments themselves who oversee the coordination of the teaching of the different subjects in accordance with the curriculum and under the supervision of the FVL. They annually send to the USC Government Board the position request necessary to increase and/or replace their staff. Applications are approved or rejected by the University depending on the availability of sufficient funding in the budget and on the staff needs calculated according to the so-called USC "teaching capacity" in the different areas of knowledge. The needs of academic staff are established based on the number of students, ECTS, and type of practical teaching of each area of knowledge or subject, so that it guarantees adequate teaching in every study programme. As a rule, the different subjects are assigned to teachers with special training in that topic.

There is a national regulation concerning academic positions; it guarantees the adequate formation and selection of the university teachers designated to teach the educational programme in the subjects for which they are chosen (see chapters 9.3 and 9.4).

As regards the technical, administrative and support staff, it depends entirely on the management of the university and the negotiation of the positions annexed to the budget with the Trade Union Centres. In general, the number of support staff is calculated according to the technical and administrative needs of each establishment. In this system, technical, administrative and support staff must undergo a competitive selection process carried out by the USC for the different categories, in which capacity and demonstrable experience in similar positions are considered. See more on this topic in 9.5.

Table 9.2.1 Academic staff in the Veterinary Programme

Type of contract	2016-2017	2015-2016	2014-2015	Mean
PERMANENT (FTE):	88.00	89.11	89.62	88.91
Full Professor	11.46	11.42	11.23	11.37
Associate Professor	49.99	53.08	53.95	52.34
Contracted Associate Professor	9.23	6.41	6.88	7.51
Assistant/Adjunct Professor	9.10	8.08	8.37	8.52
Assistant Clinical Professor (PACS - HVURC)	8.00	10.00	9.00	9.00
Teaching Assistant	0.22	0.12	0.19	0.18
TEMPORARY (FTE):	10.87	9.16	9.47	9.83
PhD students	1.65	1.50	2.00	1.71
Clinical Instructor (*Venia Docendi* – HVURC)	9.00	7.00	7.00	7.67
Contracted Researchers postdoctoral	0.22	0.66	0.47	0.45
Total (FTE)	98.87	98.27	99.09	98.74

Table 9.2.2 Percentage (%) of veterinarians acting as academic staff

Type of contract	2016-2017	2015-2016	2014-2015	Mean
Permanent % (FTE)	66.81% (58.79 FTE)	67.40% (60.06 FTE)	67.86% (60.82 FTE)	67.36% (59.89 FTE)
Temporary % (FTE)	91.44% (9.94 FTE)	97.27% (8.91 FTE)	98.63% (9.34 FTE)	95.56% (9.40 FTE)
Global % (FTE)	69.52% (68.73 FTE)	70.18% (68.97 FTE)	70.80% (70.16 FTE)	70.17% (69.29 FTE)

Table 9.2.3 Support staff in the Veterinary Programme

Type of contract	2016-2017	2015-2016	2014-2015	Mean
Permanent (FTE)	29.4	31.6	30.6	30.53
Temporary FTE)	14.8	12.6	15.4	14.27
External Services	2.85	2.85	2.85	2.85
Total (FTE)	47.05	47.05	48.85	47.65

Table 9.2.4 Research staff of the FVL (total number) *

	2016-2017	2015-2016	2014-2015	Mean
Permanent**				
Temporary***				
Grant Pre & Postdoctoral holders	12	13	14	13
Contracted by research project /group	50	44	47	47
Total	62	57	61	60

* Research staff can work part-time or full-time; their dedication can change during the year; ** The permanent academic staff also conducts research activities; *** The hired academic staff is not included, although they also conduct research activities.

9.3 Staff who participate in teaching must have received the relevant training and qualifications and must display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.

There is no formal training programme in Spain before the selection and recruitment of the academic staff. Anyone whose vocation is teaching and research, begins his or her academic career as a MA or PhD student. Once the selection process (see below) has been passed, new teachers who normally already have some academic experience are integrated in the subject teaching team. The professors help them in the preparation of classes and the assessment of students and will monitor their integration process. They are encouraged to take some of the different formation courses organized by the PFID (see 9.1). Subsequently, the opinion of students expressed in satisfaction surveys also helps to identify potential teaching training needs.

The personal progression towards the different academic categories first needs to be accredited by any QA Spanish agency which evaluates their curriculum in the corresponding subject areas, including teaching and research activities. Only after obtaining the accreditation, it is possible to apply for an academic position in each of the different categories.

In the case of permanent positions, a competitive examination is held, for which the candidates must previously have the required accreditation. The teaching, research and management activities are evaluated by an examining board composed of teachers belonging to the specific subject area (in accordance with the national legislation). For temporary hired positions, the selection and recruitment are performed through contracting committees from the subject area, which evaluate the curricula of the candidates.

The selection system is quite competitive (it is a national competitive examination process) and there are usually many candidates for each position available. Both processes adhere to the current national legislation.

Regarding specialization, a significant number of the academic staff are members of different national and international boards, Committees and Agencies, National Expert Committees and

Agencies. Special mention must be made to staff bearing a specialist diploma from the European Board of Veterinary Specialisation (EBVS) their number has increased since the last EAEVE evaluation, as well those belonging to AVEPA (Annex 9.3).

Regarding the **formal rules governing outside work**, full time teachers are not allowed to have another job (**consultation or private practice**) outside of the USC. Only part time teachers are allowed to do this once they are authorised by the USC.

Professional Associate Professors are renowned specialists who practice their professional activity outside the academic university environment and carry out a part-time teaching activity at the faculty.

In relation with the FVL curriculum, the Assistant Clinical Professor (PACS), are part of the permanent staff of HVURC and are fully involved in the clinical teaching activity.

There are also the Veterinary Clinical Instructors (*Venia Docendi*) who are hired by the HVURC and who collaborate with the clinical training as clinical assistants.

Satisfaction surveys made by students are an essential element for the **assessment of the academic staff** as part of the SGIC, as well as for the personal promotion programmes ACSUG (see 9.6). The surveys are conducted by the Area of Quality and Improvement of Procedures (ACMP), and **their outcomes are transferred** to all those involved. At the FVL level the reports are analysed by the Quality Control Committee to elaborate the annual monitoring report for this degree programme.

Additionally, students representatives are part of the GTCS that monitors teaching activity (see 3.1).

9.4 Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff should have a balanced workload of teaching, research and service depending on their role; and should have reasonable opportunity and resources for participation in scholarly activities.

FVL academic staff may belong to various contractual figures:

- Tenured, civil servants:
  - Full Professor -*Catedrático de Universidad*- (full or part time, PhD required, accreditation required).
  - Associate Professor -*Profesor Titular de Universidad*- (full or part time, PhD required, accreditation required).
- Tenured, non-civil servants:
  - Contracted Associate Professor -*Profesor Contratado Doctor*- (full time, PhD required, accreditation required).
- Non-tenured:
  - Assistant Professor -*Profesor Ayudante Doctor*- (full time, PhD required, accreditation required).
  - Teaching Assistant -*Profesor Ayudante*- (full time, no need to hold a PhD, but is usually a PhD student).
  - Adjunct Professor -*Profesor Asociado a Tiempo Parcial*- (part-time with an external job, usually holds PhD).
  - Assistant Clinical Professor -*Profesor Asociado de Ciencias de la Salud* (PACS)- who is part of the HVURC permanent clinical staff and fully involved in the clinical teaching activity.

As for the **balance between teaching, research and other activities**, each academic position has a limited number of teaching hours in the academic year: 240 hours for tenured, and less for non-tenured or other teaching positions. The rest of the working time is devoted to research, clinical

activity, self-training, continuing education or other services. The academic staff achieves a reduction in the number of teaching hours when they carry out other relevant activities in management positions or a particularly intense research activity. The distribution of teaching hours is based on standards that are approved annually by the USC (http://www.usc.es/gl/servizos/sxopra/normativapaa.html).

9.5 The Establishment must provide evidence that it utilizes a well-defined, comprehensive and publicized programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures. Staff must have the opportunity to contribute to the Establishment's direction and decision-making processes.

The **professional progression of the academic and support staff** is regulated by national and regional laws (see 9.3), which are public and guarantee equal opportunities for everyone.

All members of the faculty (academic staff, researchers, support staff and students) can be part of the different councils and committees that are **involved in decision making processes**. The participation of the stakeholders in the management bodies of the establishment and the university is well defined in the Statutes of the USC and the Veterinary Faculty Regulations. To this end, electoral processes are regularly held that allow to be incorporated new representatives to these governing bodies (see 1.5).

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

- **Academic Staff**

The hired non-permanent academic staff has the possibility to access a permanent position through an examination process (public, open access, and with the participation of an examining board), once they have obtained the specific accreditation by ANECA or the ACSUG for any of the abovementioned permanent positions. Similarly, permanent staff can be promoted in their teaching career through the same type of examinations, once they get the corresponding accreditation from ANECA. The whole promotion process is developed according to strict rules published by the Spanish Government (http://www.aneca.es/eng/Evaluation-Activities/Evaluacion-de-profesorado/ACADEMIA).

The teaching activity of the academic staff is evaluated every 5 years with a double system: by the USC and by ACSUG. Likewise, investigation activity can be evaluated every 6 years by the Research Board of the National Quality Agency (CNEAI-ANECA) and by ACSUG. A positive result will be considered for promotions and is reflected in the salary.

- **Support Staff**

There are two types of support staff: civil-servants and contracted positions. In both cases their financing, recruitment, and hiring depends on the University: the number and distribution of the Support Staff are decisions that rely entirely on the Rectorate based on the needs of each Faculty and Department; current criteria for determining the needs for support staff are the number of degrees offered by the establishment, the number of students, the number of teachers, and the annual budget managed. At present, the USC is reconsidering the posts in administration and laboratories for each faculty in order to better adapt its standards to the actual workload.

There are also programmes for the promotion and relocation of the USC support staff, mainly by means of open examinations to access a superior category or to move to another service within the same category. These programmes also take into account the merits each person has acquired with their work experience and any special courses they have done.

Specific training of the Support staff depends on the Support Staff Planning and Programming Service that organizes courses in response to the needs detected in the different units or services in which the staff works, as well as in the strategic lines and decisions taken by the University itself, which require a formative action oriented to its staff (http://www.usc.gal/gl/servizos/plan_pas/formacion/index.html). Any employee can request the training courses based on individual or professional needs/interests, training takes place during the workday; once evaluated, the training will be part of a person's professional records for promotion.

Currently, there also exists a growing number of support staff involved in research, whose funding and activity is related to different types of research contracts and projects and who are paid either with private funds or with public research funds. These posts are temporary and the possibility of keeping them is contingent on maintaining the funding.

- **HVURC Staff**

Concerning the staff belonging to HVURC, this institution has the capacity to contract clinical, support and administrative staff which are paid out of its own budget. In addition, the HVURC budget includes specific assignments to run internship programmes for Veterinary Graduates. The selection process for these hires depends directly on the HVURC Executive Board in accordance with objective criteria.

Comments on Standard 9

The meaningful percentage of Veterinarians on the teaching staff (about 70%) and the fact that most of them belong to Departments located at the FVL is evidence of the veterinary oriented teaching at the FVL.

In recent years, and due to the economic situation in Europe, in general, and in Spain, in particular, the Government decided to decrease recruitment in the public sector including Universities. This has caused the average age of FVL academic staff to increase (the average age is now over 50), and this should be solved.

Although, in general the student/teacher ratio could be considered adequate, it's true that the loss of teachers (due to retirement or other causes) has caused certain areas to be unbalanced when one considers the whole workload that includes not only teaching but also research and other activities.

The increasing number of academics accredited for promotion is a good indicator of the quality of the staff.

Suggestions for improvement on standard 9

The training of a University teacher requires different learning levels, both in teaching skills as well as in research terms. Looking towards the future, this process should be initiated with enough time to ensure excellent quality of teaching and research and this should continue with some predefined promotion structure.

Likewise, it is important to mention the need to take into consideration a person's clinical experience as well research and teaching experience for promotion, as a strategy needed to maintain the clinical services in the future; this is not considered in the current rules of the Spanish Public University. This is a major concern for the capacity to take on new clinical staff.

There should be formal training in the USC on teaching skills for the academic staff that is mandatory for recruitment.

Although the number of support staff has slowly been increasing in recent years, the number of positions here should continue to increase, and/or their schedules be flexible to cover morning and afternoon activities.

The position definitions and qualifications for support staff have not been updated in the USC for many years, and this should be improved in order to adapt them to the profiles of the Degree and the Faculty's requests.

There should be greater participation on part of the Faculty or Departments in the recruitment of the support staff contracted to guarantee a good match to the profile required; at present, staff recruitment is decided by a committee designated by the Rectorate, with no representation of the department/faculty where the post is to be held. This contrasts with the flexibility and autonomy experienced when using external income (research).

STANDARD 10:
RESEARCH

Standard 10. Research programmes, continuing and postgraduate education

10.1. The Establishment must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.

The FVL aims to be an internationally recognized institution of excellence in veterinary education and research. A major objective of its Degree is to promote an adequate research-based medical and veterinary practice. From their 1st year on, students are encouraged to in contact with the research activity developed in each research group through different strategies (see 10.3).

Currently, there are 15 main research groups with 140 members, including 83 PhD holding researchers (tenured academic staff), 38 PhD students and 19 support staff (personnel hired by projects) as shown in the following table. It is important to note that 6 of those 15 groups are recognized as Competitive Reference Groups (GRC) and 2 as Groups of Potential Growth (GPC) by the *Xunta de Galicia*. These 15 groups represent the main areas of interest for the Veterinary Degree (see Annex 10.1.1).

Furthermore, the activities developed by these groups have to do with Europe's increasing concerns to improve animal and human quality of life under the "One Health" perspective. Remarkably, their research lines are based on novel strategies for diagnosis and therapeutics, innovative biotechnological products, sustainable production systems and safe animal products of high quality. Research is funded through international, national and regional projects. Additionally, some research groups provide assessment and treatment services based on their expertise. The implementation of these projects and services allow students to engage in their activities at different levels: through the visit to the laboratories in the frame of the corresponding subjects, the collaboration in specific activities depending on their personal interests –whether "altruistic" or by a collaboration scholarships-, during the elaboration of experimental Graduation Thesis (TFG) and PhD Thesis. Research is supported by laboratory facilities dedicated to basic and clinical research, central research facilities allocated to multidisciplinary use, specialized core service laboratory facilities, and animal housing facilities. The USC was acknowledged by the European Commission, through the EURAXESS-Research in Motion, with the *"HR Excellence in Research"* award in February 2017 (http://www.usc.es/en/info_xeral/hrs4r/). This award identifies the institutions and organizations as providers and supporters of a stimulating and favourable working environment for researchers.

A total of 139 PhD Thesis (37 in 2014/2015, 60 in 2015/2016 and 42 in 2016/2017) were carried out under the supervision of the FVL academic staff.

Table 10.1.1 List of the major funded research programmes in the Establishment which were on-going during the last full academic year prior the Visitation (AY*)

MODULE	Scientific Topic / project ID	Duration	Grant/Year(€)
PRECLINICAL SCIENCE	NANOEATERS-I. Transfer and valorization of NANO Technologies to innovative SMEs in the Euroregion (early adopters) 0181_NANOEATERS_1_E-1	01/01/2015 31/12/2019	67,460.83
	Increasing Value and Flow in the Marine Biodiscovery Pipeline (PHARMASEA) FP7-KBBE-312184	01/10/2012 30/09/2016	618,300.00
	The development of tools for tracing and evaluating the genetic impact of fish from aquaculture (AQUATRACE) FP7-KBBE-311920	01/11/2012 31/10/2016	229,300.80
SUBTOTAL CE projects			915,061.63

MODULE	Scientific Topic / project ID	Duration	Grant/Year(€)
FOOD SCIENCE	New strategies for the detection of the use of recombinant bovine somatotropin (RBST) used fraudulently in dairy production. AGL2014-58881-R	01/01/2015 31/12/2017	169,400.00
	Evaluation of the food safety of fishery products associated with the presence of new marine toxins in European waters. AGL2014-58210-R	01/01/2015 31/12/2017	145,200.00
PRECLINICAL SCIENCE	Genetic characterization of syngnatids from the national parks of the Atlantic Islands and the Cabrera archipelago. 1580S/2015	18/12/2015 17/12/2018	19,780.00
	Definition of the criteria for determining the Toxic Equivalence Factors (TEF) for diarrheal shellfish toxins (DSP): Application in analytical quantification. AGL2016-78728-R	30/12/2016 29/12/2019	108,900.00
	Role of cyclophilins and their EMPRIM receptor (CD147) in atherosclerotic diseases and their modulation with compounds of marine origin. PI16/01830	01/01/2016 31/12/2019	123,420.00
CLINICAL SCIENCE	Search for early diagnosis tools and detection of biomarkers of health / intestinal disease in turbot. AGL2015-67039-C3-1-R	01/01/2016 31/12/2019	121,000.00
	Formulation of fungal spores of parasiticides in edible gelatine to prevent soil transmitted helminthozoonoses. CTM2015-65954-R	01/01/2016 31/12/2018	79,860.00
	Neonatal diarrhoea in ruminants: new strategies based on molecular advances and the integrated analysis of frequent and emerging enteropathogens. AGL2016-76034-P	30/12/2016 29/12/2019	72,600.00
	The zoonotic potential of strains of Escherichia coli isolated from poultry meat: study of resistance and definition of clonal groups pathogenic for humans. AGL2016-79343-R	30/12/2016 29/12/2019	145,200.00
SUBTOTAL Spanish Government projects			864,360.00
FOOD SCIENCE	Production, quality and technology of milk and other foods ED431B 2016/008	01/01/2017 31/12/2018	70,000.00
	Sensory analysis, nutritional assessment and development of new foods ED431B 2016/009	01/01/2017 31/12/2018	70,000.00
CLINICAL SCIENCE	Veterinary pathology group GAPV GPC2015/034	01/01/2015 30/11/2017	70,000.00
	Research in animal health: Galicia INVESAGA GRC2015/003	01/01/2015 30/11/2018	278,147.04
SUBTOTAL regional government projects			488,147.04
73 Technology Transfers to enterprise/collaborative projects (see Annex 10.1.2)			2,027,856.50
TOTAL			4,295,425.44

BLUE: CE project; RED: Spanish Government project; GREEN: Regional Government project

10.2. All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine.

Throughout their training, the FVL students have many opportunities to know and use the **scientific method** (SM): the basic and pre-clinical subjects are the first step to train students in the application of SM. The practical activity developed during the first years is based on observation, deductive thinking, experimentation –by learning different research techniques- and the analysis of results. In this way, when clinical activity begins, and **Evidence Based Medicine** (EBM) must be applied, they have already assimilated this work method and can apply it.

The basis of EBM implies that "a good clinician uses good science to make good decisions about their patients to benefit their health and welfare". To achieve this goal, the veterinary profession needs a relevant and high-quality science to be applied in clinical practice. These principles rules in the teaching of the FVL and will prepare them for **lifelong learning**.

It is important to remark that since 2014, the Veterinary Degree in the Spanish Universities is recognized as equivalent to Master's level (see Introduction: MECES *3*). This level includes all the qualifications that are aimed at the acquisition of advanced training for specialization or to promote their introduction into research activities.

The main activities that help the students to become aware of the importance of EBM, scientific research and lifelong learning are described below:

- **Direct information from the teacher**. The expertise of teachers is considered when developing the contents of the syllabus as they can comment their research activities that certainly motivate students to develop a scientific approach to learning.
- **Use EBM to study clinical cases in supervised self-learning**. From the first year on, students are trained to search and critically analyse the content of lectures, textbooks and scientific articles as they regularly use this material to study and prepare different oral and written reports, seminars, etc. EBM is more specifically used in clinical cases during the 3rd, 4th and 5th years. In fact, one criterion for evaluating hospital rotation is based on the critical judgment of the cases included in the final practical training report and the use of adequate and updated bibliographical references.
- **Graduation Thesis (TFG).** All veterinary students actively participate in research through the TFG project which can be an experimental laboratory project, a clinical study or a critical bibliographic review/update. It is designed for students to develop advanced skills in carrying out independent and sustained research. Each student, under the supervision of the academic staff (1 or 2), put their skills and knowledge to practice in order to search for and deal with scientific work, interpret the results and draw conclusions. The oral presentation of the final project in front of a three-member evaluation committee in a public act represents the final step for any undergraduate student to become a Veterinary Graduate. TFG topics and guidelines appear on http://www.usc.es/gl/centros/veterinaria/traballofindegrado.html.
- The *Intercentros* Library provides specific information on bibliographic resources and offers courses about **bibliographic searches** and management, databases and **scientific writing** for the entire university community (see 6.2 and 6.3). In addition, there is an elective subject named "Drafting, writing, and presenting scientific papers" that mainly deals with experimental science publications and the appropriate steps for writing manuscripts, while providing guidelines for a correct communication of scientific results (posters, oral communications).

10.3. All students must have opportunities to participate in research programmes.

The FVL allows its undergraduate students to participate actively in the research activities of our groups and Departments in several ways:

- **Graduation Thesis (TFG).** Already explained in 10.2.

- **EPT.** Students can choose to carry out a research activity (clinical or non-clinical) as part of their extramural training (see 3.6).
- **Collaboration scholarships**. The Ministry of Education, Science and Sports annually convenes this type of scholarships to facilitate the integration of the students of fourth and fifth year students in departmental activity, in a way that is compatible with their studies. During the period from 2015 to 2017, 8 students were granted with a Collaboration scholarship. During this time, they work on specialized research tasks that were of interest for their professional future.
- **Scientific divulgation activities are** organized by the "*Asociación de Divulgación Científica de Galicia*" (ADCG); a group of postgraduate students interested in scientific research and in promoting interaction between students and novel researchers, most of them working at the FVL. They periodically organize informative and scientific presentations named *Science Clips*, and a congress for young researchers (PhD) called "First steps in science" (*Primeiros Pasos na Ciencia*).
- Students are encouraged to participate in congresses and conferences for undergraduates and in professional association meetings, to gain experience in these fields.
- Initiatives such as the development of *scientific pills* as part of the practical work included in some subjects, are an alternative way to help connect students with the scientific method and research.

10.4. The Establishment must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.

In relation to postgraduate programmes of the USC, only the MS degrees depend on the faculties; PhD programmes are the responsibility of the *International Centre for Advanced Doctorate Studies* (CIEDUS), while different agents (faculties, companies, HVURC, etc.) participate in the continuing education courses.

There are two **PhD degree programmes** fully developed by FVL academic staff: *Basic Research Applied to Veterinary Science* and *Veterinary Medicine and Health*. Nevertheless, the FVL academic staff and students also participate in other PhD programmes in a wide range of veterinary, biomedical and biological research fields (see table 10.4.2).

During the evaluation period there has been a significate change in the **FVL Master of Science offer**: until the 2015-16 academic year, two MS with a research orientation were offered to enable graduates to access doctoral programmes; since 2014, the veterinary degree programme was made equivalent to a BS and a MS degree and this allows all graduates in veterinary medicine to directly access the doctoral phase. As a result, these MS programmes were extinguished. Like in the PhD programmes the FVL academic staff and students participate in other MS degree programmes (see table 10.4.2).

The new MS in *Genomic and Genetics* starting in 2018-19 will provide a formative offer in a field with a great future in veterinary medicine.

Continuing Education programmes will be discussed below.

As for **Internships and Residencies**, there is an internship offered by the HVURC (explained elsewhere) but there is still not a Residency programme (even though there is likely to be someone in the future).

Table 10.4.1 Number of students registered at postgraduate clinical training

Training	2016-2017	2015-2016	2014-2015	Mean
Internships:	16	16	16	16
Companion animals	12	12	12	12
Equine	2	2	2	2
Production animals	2	2	2	2
Residents:	0	0	0	0
EBVS disciplines (specify):	2	2	2	2
European College of Bovine Health Management*	1	1	1	1
European College of Animal Welfare and Behavioural Medicine	1	1	1	1
Others (specify)	6	3	3	4
Scholarships and pre-doctoral contracts (clinics)	17	18	16	17

*alternative residency programme

Table 10.4.2 Number of students registered at postgraduate research training

	2016-2017	2015-2016	2014-2015	Mean
PhD Programmes	79	75	42	65.33
Basic Research Applied to Veterinary Sciences *	23	18	9	16.67
Veterinary Medicine and Health *	36	32	16	28
Aquaculture	1	2	2	1.67
Marine Science, Technology and Management	3	3	2	2.67
Molecular Medicine	5	5	2	4
Environmental and Natural Resources	1			0.33
Biodiversity and Preservation of the Natural Environment	2	2	1	1.67
Biochemistry and Molecular Biology			1	0.33
Innovation in Nutrition, Food Safety and Food Technologies	3	6	2	3.67
Advances in Microbial and Parasitic Biology	5	6	6	5.67
Ecopathology of Wildlife and its Implications in Animal Health and Public Health		1	1	0.67
Masters degrees:	1	2	11	4.67
Medicine and Veterinary Health Research*	1	2	11	4.67

*Programmes fully developed by FVL academic staff

Table 10.4.3. Number of students registered at other postgraduate programmes in the Establishment but not related to either clinical or research work (including any external/distance learning courses)

Programmes (courses)	2016-2017	2015-2016	2014-2015	Mean
Master in Innovation in Nutrition, Food Safety and Food Technologies	21	2	19	14
Master in Aquaculture (Interuniversity)	41	52	57	50
Master in Milk Production	10	0	8	6
Master in Food, Health and Community Nutrition		12	10	7.33
Total	72	66	94	77.33

Table 10.4.4 Number of attendees to continuing education courses provided by/at the Establishment

Programmes (courses)	2016-2017	2015-2016	2014-2015	Mean
Accreditation course for direct radio-diagnosis facilities. Specialty: General radio-diagnosis (HVURC)	20	20	20	20
Technical conferences of the Galician Association of Swine Veterinarians (AGAVEPOR)	100	100	100	100
Conferences on topics about nutritional related diseases (Royal Canin)	55	42	62	53
Continuous training postgraduate course: clinical and pathological diagnosis in amphibians, reptiles and fish (FVL)		30		10
Continuous training postgraduate course: Nutritional Coaching (USC)	12	16		9.3
Continuous training postgraduate course: Assisted Education with Dogs in Infantile and Primary Education (HVURC)		13		4.3
First steps in Science course (Galician Association of Scientific Dissemination)	80			26.7
Continuous training in diagnostic cytology workshop (GALENO)	14			4.7
Photography workshop (*Campus Terra* USC)	3	5	13	7
Equine Conference Cycle (HVURC)	12			4
Technical Conferences in Milk Production (ELANCO)	60	60	60	60
Feline dermatology conference (HVURC)		30		10
Conference on veterinary topics (GALENO)		25		8.3
Genomics and bioinformatics course (USC)		36		12
III Course on veterinary medicine and wildlife conservation (FVL)		76		25.3
Interactive workshop on clinical diagnosis in fish (FVL)			25	8.3
Interactive workshops on Research and Aquaculture within the day of Aquaculture (USC)	34			11.3
Marketing and Management Conference for Veterinary students (FVL)	80	80	80	80
Official control in slaughterhouses. Update for veterinary inspection in slaughterhouses of solipeds and ungulates (FVL)	45	45	90	60
Postgraduate course of improvement in healthcare activity in a veterinary hospital (HVURC)	16	16	16	16
Practical ultrasound course (SERVIVE)	20			6.7
Workshop on Additive ingredients in the dairy and food industries (USC Dairy Plant)	102			34
Technical conferences on dairy cows (SERAGRO)	630	615	600	615
Ultrasound tour through the abdominal cavity. AVEPA practical workshops	24			8
Veterinary pharmacy course in the dog and cat (HVURC)	20	11		10.3
Workshops of Musculoskeletal, thoracic, abdominal and head-column radiology (HVURC)	32			10.7
Workshops on basic ultrasound, Doppler, musculoskeletal and cardiac, thoracic radiology, abdominal and clinical cases (HVURC)			56	18.6
Technical Conference of Livestock (AFRICOR)	400	400	400	400
Conference on Ecological Livestock (FVL)			62	20.7

The saturation of the labour market oriented to the clinic activity in recent years has made the research-oriented professional career more attractive, despite the fact that the number of scholarships has decreased. In this scenario we would expect the number of PhD students to increase. However, if we consider the number of students enrolled in graduate programmes in the period evaluated, it is certainly difficult to establish a trend. The **prospected number of students registered in postgraduate programmes for the next 3 academic years** is therefore unpredictable.

Each year, the HVURC offers 16 internships for veterinary graduates as **postgraduate clinical training**: 12 posts in the area of small animals and 4 posts in the area of large animals. The candidates are selected for these positions based on their Curriculum Vitae. Clinical training interns **do not generate conflicts, but strongly help to expand the knowledge of our students** because they collaborate in the practical training of undergraduate students in different subjects, including the Hospital Rotation. Their activities are always under the supervision of senior clinicians. Interns acquire additional training by means of clinic rounds and sessions and seminars in the Postgraduate *Course of improvement in healthcare activity in the veterinary hospital*. The presence of accredited specialists in the HVURC staff (see 9.3) stimulates and challenges our undergraduate and postgraduate students.

Continuing Education (CEd) programmes provided by the Establishment are important because the participation of these academics make their work accessible to professionals as well as to society in general, promotes the diffusion of research findings, update concepts in courses for practitioners and permit to visualization of the different university activities. Thanks to the research and clinical work developed in the FVL, we are active at offering Postgraduate and CEd possibilities for new graduates, veterinarians, and other sanitary, agricultural or environmental professionals, both inside and outside the Establishment. The FVL CEd offer is organized considering suggestions or requests from professional or scientific organizations, colleagues, alumni and by the professors' own initiative. It is worth mentioning that the courses offered are related not only to traditional veterinary topics (Clinics, Animal Production and Food Science), but also to newly developing ones such as wildlife, aquaculture, implications for veterinarians in public health and food safety (from disease control to food traceability) and many others. This interchange is naturally projected into the everyday academic and clinical activity.

The CEd programmes offered by the FVL and the HVURC (courses and workshops about clinical related topics) are advertised on their respective websites (http://www.usc.es/gl/centros/veterinaria/index.html) (http://www.rofcodina.org/index.php/es/la-fundacion-rof-codina).

Due to the good relationship existing between different professional associations and private companies and the FVL and HVURC staff, they are also involved in the CEd activities organized by external entities (see table 10.4.4). Meanwhile, the bond established by means of the CEd programmes between the parts is a useful way to build up and strengthen relationships and to collect feedback from external stakeholders -especially practitioners working outside the Faculty- about the needs of the profession and the community in general.

The **Research activity** related to the FVL depends entirely on the research groups (see table 10.1), without any intervention from the faculty. Each group has a coordinator and different researchers, most of them belonging to the academic staff of the FVL, but also PhD students, and sometimes people coming from different external entities and contracted technicians. Each group has absolute autonomy over its management and counts on the services of the USC for technical advice and support services.

As far as the **CEd** activities organized by the FVL are concerned, most information has been just mentioned above. As for assessment and review, when the activities are organized directly by the faculty or its academics, a satisfaction survey is commonly offered to the attendees for feed-back.

When external agents are involved, it is usually up to them whether or not to conduct such surveys.

Posgraduate studies include the MS degrees and the PhD programmes**.** The first ones are linked to the faculties, while the seconds rely on the CIEDUS and the Doctorate Schools.

- •**MS degree** programmes can be designed and managed by a faculty or a collaboration of different faculties and even universities. Its governing body is the Master Academic Committee (CAM), in which the dean, the quality manager and the person responsible for administrative management at the faculty always participate. This CAM oversees all management, coordination, assessment and review of the programme; every year it conducts a monitoring report according to the SGIC, which is addressed to the Quality Control Committee of the FVL to verify the progression and results before its approval by the Faculty Board.
- •The *International Centre for Advanced Doctorate Studies* (CIEDUS) by means of its four doctorate schools, assume the organization, planning, management, supervision and monitoring of all the **doctoral activities** offered at the university. Academic staff from the FVL participate in eleven PhD programmes which are dependent on three of the mentioned doctorate schools (EDI *Terra*, and EDI *Ciencias* and EDI *Saúde*). Every PhD programme depends on its Doctorate Programme Academic Committee (CAPD) for design, implementation, updating, organization, QA and coordination.

The transversal and specific educational activities within the doctoral studies are intended to offer complementary training to students beyond their research activity. There are scholarships to carry out doctoral studies through annual competitive calls made by of the Xunta de Galicia and the Ministry of Education or through the funding sources of the research groups.

All activities are disseminated on the USC website http://www.usc.es/doutoramentos/en.

Periodically, regional (ACSUG) and national (ANECA) Quality Agencies evaluate the official postgraduate programmes.

Comments on Standard 10

We believe that research is a strong and consolidated pillar of FVL based on its impact on international and national repertories and rankings. However, research may be a bit unbalanced in some areas and the participation of some areas should be encouraged, perhaps by means of a strategic plan.

The gradual disappearance of financial support to small research groups that remain outside the large clusters has meant that some do not find resources to continue their activity.

The specialization project of *Campus Terra*, started in 2015, is a project to transform the Campus of Lugo into a scientific and social reference in the fields of knowledge linked to the economic, social and environmental sustainability of the use of land (in Galician *terra*). The main purpose is adding value to the existing capacities and generating new ones for the construction of a smart, sustainable and integrating growth model. In addition, the creation of a strategic research grouping between the more competitive *Campus Terra* research groups in the field of primary production, as the main objective of promoting strategic alliances with different actors or institutions in the search of excellence in teaching, research and innovation. For more information see the website http://www.usc.es/campusterra/en/strategic-cross-disciplinary-objectives.

The creation of doctoral schools that allow the organization of doctoral studies according to their field of specialization has meant a significant advance in their management

In addition to the EBVS disciplines, in Spain there is a programme of clinical specialties promoted by AVEPA, to which an important number of the FVL academic staff belongs. This AVEPA accredited staff themselves participate in the programme for new members and facilitate the realization of CEd courses in the Establishment.

Suggestions for improvement on Standard 10

Two residency programmes are planned to be carried out:

- European Board for Specialization in Aquatic Animal Health. The residency will take a minimum three years and will be coordinated by two Diploma holding ECAAH specialists.
- European College of Animal Welfare and Behaviour Medicine.

A MS degree in Animal Nutrition organized by the HVURC in collaboration with external entities.

There should be a more a constant promotion of the CEd activities in all possible fields of interest for postgraduates on part of the FVL side.

STANDARD 11:
OUTCOME

Standard 11. Outcome Assessment and Quality Assurance

11.1 The Establishment must have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders must develop and implement this policy through appropriate structures and processes, while involving external stakeholders.

All the public Universities in Spain follow the unified procedures for QA evaluation established by the ANECA, and fully implemented in the ACSUG. Both are full members of the European Association for Quality Assurance in Higher Education -ENQA- and are listed in the European Quality Assurance Register for Higher Education -EQAR-, thus assuring **full compliance with the ESG standards**.

The SGC framework for the USC (approved in December 2009) was designed following the model of both national and regional QA agencies. It is articulated in 5 main points with 9 criteria and 46 guidelines according to the general operating programme named FIDES-AUDIT.

The general SGC framework was adapted by the FVL and this adaptation approved by both the USC and the ACSUG in 2011. In 2013 a simplified version of the initial general SGC document was adopted, and the necessary amendments to the initial FVL SGIC document (v.0) were introduced in 2014 and 2015 to achieve its current version (v.3). In February 2018 the SGC framework of the USC has been renewed version, seeking greater simplicity in its application. We will proceed to adapt our SGIC to this new format throughout this year to be able to show our improvements to the ACSUG presumably in April 2019. Therefore, the FVL has a **QA culture with a continuous enhancement of quality.**

In order to ensure a **sustainable and transparent outcome assessment as well as quality enhancement mechanisms**, the SGIC establishes the elaboration of the annual Monitoring Report of the degree. Using the data available from the central services of the USC about the results and performance indicators, as well as suggestions and satisfaction survey inputs coming from all groups of interest, the main objectives of the Monitoring Report are:

- To ensure the effective execution of the teaching in accordance with the provisions of the officially approved study plan or curriculum.
- To detect deficiencies in the development of the teaching and analyse the corrective actions to be taken.
- To ensure the public availability of relevant information to the different interest groups.
- To provide recommendations/suggestions to help improve the curriculum.

To achieve these goals, a series of criteria are evaluated:

- Communication and transparency.
- Structure and functioning of the QA.
- Performance indicators.
- Implementation of systems for quality improvement.
- Implementation of the recommendations made by QA Agencies in previous evaluations.
- Modifications of the syllabus.
- Evaluation of the strengths and weaknesses of the programme.

The Monitoring Report is elaborated by the Quality Control Committee and is then submitted to the Faculty Council for approval before it is sent to the Area for Quality and Improvement of Procedures (ACMP) of the USC for technical instruction. The final document will be sent to the ACSUG for review to receive relevant comments and proposals **to ensure that the QA cycle is completed.**

In the yearly activity of the FVL, several activities **collect, analyse and use information from all relevant sources**. Briefly:

- Annual Monitoring Report of the degree, and enhancement measures.
- Analysis of the progress of the curriculum by means of the end-of-semester follow-up meetings (GTCS).
- Direct inputs from students that participate in the evaluation surveys, and from their representatives on the Faculty Council and all delegated committees: Standing Committee, Committee on Economic and Monetary Affairs, Quality Control Committee, etc. http://www.usc.es/gl/centros/veterinaria/comisions_delegadas.html
- Report of incidences, the Complaint and Suggestions mailbox or the "ask your question" form, all available electronically on the website:
  - o http://www.usc.es/gl/centros/veterinaria/incidencias.html
  - o http://www.usc.es/gl/centros/veterinaria/suxerencias_reclamacions.html
  - o http://www.usc.es/gl/centros/veterinaria/buzon_informacion.html
- Satisfaction surveys conducted by the ACMP, which are completed by students, academic and support staff, and external stakeholders including former alumni. All questionnaires, procedures and results report for the different groups of interest can be accessed on the USC website http://www.usc.es/en/servizos/calidade/satisfacciongrupos.html.

All activity on the functioning of the FVL is promptly **collected on the website** so that it is accessible for public consultation. All the protocols used to obtain information for the SGIC are assembled in a separate section named "*Calidade*".

The FVL has a fully implemented SGIC that guarantees that **all internal** (academic staff, support staff, students), **and external stakeholders** (official college of veterinarians, public administrations, practitioners, employers, extramural training tutors, industry representatives, etc.) are **informed, represented and participate as active members in the governance** of the faculty and the curriculum, in order to ensure periodical and complete inputs from all the parties. The contribution of students and external stakeholders play a crucial role in guaranteeing that the a continuous improvement of the curriculum matches the students expectations to receive high quality training, as well as the prospects for the veterinary profession.

The SGIC is put into practice through two interlinked bodies: The Quality Control Committee responsible for developing the QA policies, and the Faculty Council to whom any report is addressed for information and approval.

The Quality Control Committee analyses the overall functioning of the SGIC in the FVL and the results of the curriculum based on different sources. This analysis is compiled in the annual Quality Report (QR) that contains information on:

- The Monitoring Report of the degree together with the proposal of the corresponding Improvement Actions.
- The validity of the quality policy.
- The evolution and degree of compliance with the Establishment's strategic plan.
- The functioning and results of the different processes considered in the SGIC.
- The evolution and degree of compliance with the improvement plan from the previous year (quality objectives and monitoring of improvement actions).
- The annual improvement plan proposal, which includes the quality objectives and the improvement actions planned for the following term.
- Any potential changes in the processes that make up the system.

Each year the University Governing Council Committee of Quality and Planning evaluates and eventually approves the Quality Report. In this way **the annual cycle of quality of the FVL and the degree is closed.**

As it has been said before, all information concerning QA and any other aspect regarding the Establishment and the curriculum is available and on public display on the website.

11.2 The Establishment must have processes for the design and approval of their programmes. The programmes must be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.

Please consult Standards 3.2, 3.3, 3.4 and 8.3.

11.3 The Establishment must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.

In stark contrast to traditional styles of teaching where students were expected to sit for hours, listening and, theoretically, absorbing information presented by the instructor, the Bologna declaration introduces a new paradigm that takes time and creativity to implement. The development of our curriculum in recent years has meant the introduction of new strategies to make the students see themselves as active thinkers and problem-solvers. With few exceptions, the subjects propose different types of report writing as a part of autonomous learning, while some of the preclinical and most of the clinical groups also use problem-based learning and case studies among their learning strategies. Hence, evaluation not only includes the traditional theoretical exam but also a series of practical trials and verifications, which altogether guarantee that students not only know but also demonstrate their proficiency in diverse professional fields.

The most common way to verify **the active role of students in the learning process** is through evaluation of hands-on work (continuous evaluation in some cases), demonstration of critical thinking and correct identification of problems related to diverse professional scenarios. Every modality of evaluation is pondered, and students get a mark accordingly. All the information regarding the evaluation is described in detail in the syllabi.

How well and to what extent the curriculum competences are obtained is assessed through evaluation of learning outcomes. Therefore, independently of its affiliation to one module or another –basic subjects and sciences, clinical, animal production or food safety-, each subject has an evaluation system that guarantees that all graduating students have attained all the competencies defined in the curriculum.

Tracking the progress of the student through a system of individualized tutoring by teachers seems to be the best method to carry out a correct orientation during the learning period. The review of exams is an essential part of the educational process and the starting point for feedback after the evaluation: showing the weaknesses and strengths helps to redirect the study strategy and its future performance. Throughout time, the students **become active participants in their training process through the feedback provided by the continuous assessment**: they begin as passive receivers of information yet, in the end, they do initiate and play and active role in their own learning process.

11.4 The Establishment must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.

Please consult Standards 7.2, 7.4 and 7.8

11.5 The Establishment must assure themselves of the competence of their teachers. They must apply fair and transparent processes for the recruitment and development of staff.

Please consult Standards 9.1, 9.3, 9.4 and 9.6

11.6 The Establishment must have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.

Please consult Standards 2.1, 2.3, 6.1, 6.2, 6.3, 6.4, 7.7, 7.8, 7.9, 7.12 and 7.13

11.7 The Establishment must ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.

All the QA processes have already been described in the corresponding standards.

11.8 The Establishment must publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.

The strategy and the policies of the FVL are developed according to the general guidelines established by the USC. Depending on the different areas of action, the related information is accessible on the institutional website or at the faculty itself.

The operational activities at the FVL are communicated to the interest groups via informative screens, the electronic (website) and physical bulletin boards and/or by email; the minutes of the different committee meetings held are stored in digital or paper format and are provided to the members of the interest groups upon request.

11.9 The Establishment must monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews must lead to continuous improvement of the programme. Any action planned or taken as a result must be communicated to all those concerned.

Besides the end-of-semester follow-up reviews of the syllabi by the GTCS (see 3.1), there is an annual Monitoring Report of the degree (described in 11.1) with its associated improvement actions. For more information on the degree programme management, please consult Standards 3.3 and 3.4.

All information concerning the educational programme is available to the public via the FVL website and/or the Virtual Campus of the different subjects: any update or modification related to organization (annual schedule and academic planning) or contents (curriculum, syllabi) is published and, if applicable, also sent by email to the distribution lists of the different interest groups: teachers, administrative staff and students.

The webpage *USC en cifras* (USC by the numbers) offers numerous statistical data on different aspects, among others, those related to students and the academic offer: educational programmes, enrolment, student profiles, entry and graduation results, mobility programmes, grants, etc. http://www.usc.es/gl/info_xeral/responsable/cifras/index.html

11.10 The Establishment must undergo external quality assurance in line with the ESG on a cyclical basis.

The last EAEVE visitation to the FVL took place in April 2008.

In accordance with the provisions of the Spanish law and as established by the Ministry of Education, Culture and Sport, a complete accreditation of the curriculum and SGIC took place in April 2017, made by the ACSUG. Therefore, the curriculum was accredited and is, thus, valid for a maximum of 7 years until the next accreditation.

The SGIC and QA of the FVL is expected to be accredited by the ACSUG in April 2019.

Comments on Standard 11

Quality assurance is as necessary for our Establishment as it is hard to implement, since the outcome assessment policy requires permanent monitoring and tuning activity. Satisfaction surveys are not always seen by internal stakeholders as essential tools for the process.

Besides the evident need, it is difficult to get the external advisory committee to formulate changes that need to be made since this means a great amount of work for the external stakeholders and it is often difficult to harmonize the agendas of all the members. Moreover, that the participation on this committee is absolutely altruistic on their part and they receive no compensation.

Suggestions for improvement on Standard 11

Internal stakeholders would better perceive the benefits of the SGIC if processes were easier to understand, follow and implement, and had more direct results on a day-to-day basis: many are seen as an extra task with too much paperwork and too little impact.

A simplified SGIC would favour the involvement of all agents. We are confident that the adaptation to the new version approved during the 2017-2018 academic term will help to improve it.

STANDARD 12:
ESEVT INDICATORS

Standard 12. ESEVT Indicators

12.1 Factual Information.

	Raw data from the last 3 full academic years	2016-17	2015-16	2014-15	Mean
1	n° of FTE academic staff involved in veterinary training	98.87	98.27	99.09	98.74
2	n° of undergraduate students	698.00	648.00	605.00	650.33
3	n° of FTE veterinarians involved in veterinary training	68.73	68.97	70.16	69.29
4	n° of students graduating annually	83.00	67.00	38.00	62.67
5	n° of FTE support staff involved in veterinary training	47.05	47.05	48.85	47.65
6	n° of hours of practical (non-clinical) training	850.50	850.50	850.50	850.50
7	n° of hours of clinical training	675.00	675.00	675.00	675.00
8	n° of hours of FSQ & VPH training	229.00	229.00	229.00	229.00
9	n° of hours of extra-mural practical training in FSQ & VPH	30.00	30.00	30.00	30.00
10	n° of companion animal patients seen intra-murally	5548.00	5466.00	5749.00	5587.67
11	n° of ruminant and pig patients seen intra-murally	42.00	33.00	42.00	39.00
12	n° of equine patients seen intra-murally	47.00	130.00	121.00	99.33
13	n° of rabbit. rodent. bird and exotic patients seen intra-murally	145.00	199.00	224.00	189.33
14	n° of companion animal patients seen extra-murally	1.00	1.00	0.00	0.67
15	n° of individual ruminants and pig patients seen extra-murally	970.00	1116.00	1216.00	1100.67
16	n° of equine patients seen extra-murally	120.00	50.00	84.00	84.67
17	n° of visits to ruminant and pig herds	785.00	776.00	768.00	776.33
18	n° of visits of poultry and farmed rabbit units	46.00	45.00	33.00	41.33
19	n° of companion animal necropsies	174.00	192.00	226.00	197.33
20	n° of ruminant and pig necropsies	123.00	141.00	114.00	126.00
21	n° of equine necropsies	5.00	3.00	0.00	2.67
22	n° of rabbit, rodent, bird and exotic pet necropsies	222.00	165.00	251.00	212.67
23	n° of FTE specialised veterinarians involved in veterinary training	20.00	20.00	20.00	20.00
24	n° of PhD graduating annually	42.00	60.00	37.00	46.33

	Calculated Indicators from raw data	FVL values	Median values	Minimal values	Balance
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.15	0.16	0.13	0.02
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1.10	0.87	0.59	0.51
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0.76	0.94	0.57	0.19
I4	n° of hours of practical (non-clinical) training	850.50	905.67	595.00	255.50
I5	n° of hours of clinical training	675.00	932.92	670.00	5.00
I6	n° of hours of FSQ & VPH training	229.00	287.00	174.40	54.60
I7	n° of hours of extra-mural practical training in FSQ & VPH	30.00	68.00	28.80	1.20
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	89.16	70.48	42.01	47.16
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	0.62	2.69	0.46	0.16
I10	n° of equine patients seen intra-murally / n° of students graduating annually	1.59	5.05	1.30	0.29
I11	n° of rabbit. rodent. bird and exotic seen intra-murally / n° of students graduating annually	3.02	3.35	1.55	1.48
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0.01	6.80	0.22	-0.21
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	17.56	15.95	6.29	11.27
I14	n° of equine patients seen extra-murally / n° of students graduating annually	1.35	2.11	0.60	0.76
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	12.39	1.33	0.55	11.84
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.66	0.12	0.04	0.61
I17	n° of companion animal necropsies / n° of students graduating annually	3.15	2.07	1.40	1.75
I18	n° of ruminant and pig necropsies / n° of students graduating annually	2.01	2.32	0.97	1.04
I19	n° of equine necropsies / n° of students graduating annually	0.04	0.30	0.09	-0.05
I20	n° of rabbit. rodent. bird and exotic pet necropsies / n° of students graduating annually	3.39	2.05	0.69	2.70
I21	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.32	0.20	0.06	0.26
I22	n° of PhD graduating annually / n° of students graduating annually	0.74	0.15	0.09	0.65

Comments on Indicators

As a general comment on Indicators, one must remember that all Spanish Veterinary Degrees are 5 year programmes, which is quite different from the 5.5 to 6 years in the rest of Europe. This is an important issue when considering the values of the indicators. Nevertheless, the overall ESEVT indicators for the FVL are above the minimum required.

The raw data included for calculating indicators comes from the period of time that coincide with the change of the syllabus. The current "Degree in Veterinary Medicine" replaces the previous curriculum (*Licenciatura*). This new Degree was gradually introduced from the 2010/2011 academic year while the *Licenciatura* courses were extinguished in a parallel manner. During the

period 2010/2011 to 2013/2014 both curricula coexisted. Since 2014/2015, only the students belong to the new Study Plan received teaching and the *Licenciatura* students were only allowed to take any pending final exams. These students were not included in row 4 of the raw data, since they did not receive any teaching, as they had already had classes in the past.

Two indicators (I12 and I19) are below the EAEVE minimal values, but they cannot be interpreted individually but rather combined with other indicators which serve the same goals. Particularly:

- I12 - N° of companion animal patients seen extramurally almost equals zero, because the entire case-load of these animals is attended intra-murally at the HVURC, and thus, no Ambulatory Clinics is offered for companion animals. Companion animals are always encouraged to be brought to the HVURC. Visits to Kennels included as Herd Health Management training are not considered in this indicator (Table 5.1.7).

- I19 - N° of equine necropsies / n° of students graduating annually is slightly under the EAEVE minimal values. This was a consequence of the effect that the economic crisis had on the Galician equine productive sector, which eliminated many animals due to lack of economic resources.

Despite being above the minimum value required for I9, ruminant and pig patients are seldom brought into our premises because: a) individual clinical work associated with Production Medicine is better performed at farms; students should get acquainted and evaluate husbandry and management conditions, while conducting clinical examination, suggesting treatment or preventive measures b) farmers are not willing to let animals return to their farms for biosecurity reasons; c) communication skills with farmers and farm workers are better developed in situ. Therefore, veterinary practice in food animals is mainly acquired extramurally with the ambulatory clinics.

Suggestions for improvement on Indicators

In relation to the first comment, all Veterinary Establishments in Spain consider that it is necessary to extend the duration of the Degree one more semester. This would improve the students' clinical training.

GLOSSARY

Glossary

A

ACMP	Area of Quality and Improvement of Procedures
ACSUG	Agency for Quality of the Galician Universitary System
ADCG	Association for Scientific Dissemination of Galicia
AEVEE	Spanish Association of Veterinary Equine Specialists
ACMP	Area for Quality and Improvement of procedures
ANECA	Spanish Agency for Quality Assessment and Accreditation
ANEMBE	National Association of Bovine Medicine Specialists
ATIC	Information and Communications Technologies Area
AVEPA	Spanish Association of Veterinary Small Animal Specialists

B

BUSC	USC Library

C

CAM	Master's Academic committee
CAPD	Doctorate Programme Academic Committee
CB	Bioethics Committee
CB-FRC	Rof Codina Bioethics Committee
CEBIOVET	Veterinary Biomedicine Centre
CEd	Continuing Education
CEMMA	Galician Stranding Network
CeTA	Learning Technology Centre
CIEDUS	International Centre for Advanced Doctorate Studies
CIUG	Inter-University Commission of Galicia
CNEAI	Research Board of the National QA Agency
CT	Computed Tomography

E

EAEVE	European Association of Establishments for Veterinary Education
EBM	Evidence Based Medicine
EBVS	European Board of Veterinary Specialisation
ECAAH	European College of Aquatic Animal Health
ECTS	European Credit Transfer and Accumulation System
EHEA	European Higher Education Area
ENAC	National Accreditation Entity
ENQA	European Association for Quality Assurance in Higher Education
EPT	External Practical Training
EQAR	European Quality Association Register
ESEVT	European System of Evaluation of Veterinary Training
ESG	European Standards and Guidelines (for QA)

F

	FIDES-AUDIT	Program to guide universities on the task of integrating all of their activities related to guaranteeing educational quality, with the aim of supporting and encouraging future processes for verification, monitoring, and renewal of degree program accreditation.
	FISH	Fluorescence in situ Hybridization
	FPLC	Fast Protein Liquid Chromatography
	FRC	Rof Codina Foundation
	FVE	Federation of Veterinarians of Europe
	FVL	Veterinary Faculty of Lugo
G		
	GPC	Group of Potential Growth
	GRC	Competitive Reference Group
	GTCS	Semester Coordination Working Group
H		
	HACCP	Hazard Analysis and Critical Control Point
	HUVRC	Rof Codina University Veterinary Teaching Hospital
I		
	ICU	Intensive Care Unit
	IM	Intramuscular
	IT	Information Technology
	IV	Intravenous
L		
	LHC	Clinical Skills Laboratory
M		
	MECES	Spanish Qualification Framework for Higher Education
	MRI	Magnetic Resonance Imaging
O		
	OIE	World Organisation for Animal Health
	OiU	USC Information Office
P		
	PACS	Assistant Clinical Professor
	PAU	University Access Exam
	PFID	Innovation Program for Training and Teaching
	PO	Per os
Q		
	QA	Quality Assurance
	QCC	Quality Control Committee
	qPCR	Quantitative Polymerase Chain Reaction
	QR	Quality Report
R		
	RAF	Research Animal Facility

	RIAIDT	Infrastructure Network to Support Research and Technological Development
S		
	SC	Subcutaneous
	SECIVE	Spanish Association of Veterinary Surgeons
	SEM	Scanning Electron Microscope
	SEMIV	Spanish Association of Specialists in Veterinary Medicine
	SEOVE	Spanish Association of Veterinary Odontologists
	SER	Self Evaluation Report
	SGC	Quality Assurance System
	SGIC	Internal Quality Assurance System
	SM	Scientific method
	SPIU	Service of Participation and University Integration
	SRM	Specific risk materials
	SUG	Galician University System
T		
	TEM	Transmission Electron Microscope
	TFG	Graduation Thesis
U		
	UNED	National Distance Education University
	USC	University of Santiago de Compostela
V		
	VPN	Virtual Private Network
Z		
	ZA	Zebrafish Aquarium

APPENDICES

Appendices and annexes

Appendix 1.

Current academic staff, qualifications, their FTE, teaching responsibilities and departmental affiliations

Appendix 2

Appendix 2.A Units of study of the core veterinary programme (including Hospital Rotation, EPT and Graduation Thesis)

Appendix 2.B. Alignment of the Curriculum with the ESEVT Day One Competences

Appendix 3

Maps of the Establishment and the intra-mural and extra-mural facilities used in the core veterinary programme

Appendix 4

Written assessment procedures for QA

Appendix 5

List of scientific publications from the Establishment's academic staff in peer reviewed journals during the last three academic years

Appendix 6

Other relevant documents (Annexes)

Annex 1.5. Organization and management of the HVURC.

Annex 1.6.1. FVL SWOT Analysis.

Annex 1.6.2. 2014-18 FVL Strategic Plan.

Annex 2.1. Detailed expenses and income of the University of Santiago de Compostela during the last 3 academic years.

Annex 3.1. Amendments made in the curriculum.

Annex 3.5.1. Curriculum hours in EU-listed subjects taken by each student.

Annex 3.5.2. Logbook Hospital Rotation.

Annex 3.6. External Entities Concerted for EPT.

Annex 3.8.1. Agreement between Establishment and EPT providers.

Annex 3.8.2. EPT folder.

Annex 5.1.1. Farms and other external entities with official agreement with the FVL for practices.

Annex 5.1.2. Farms and other external entities with official agreement with the HVURC for practices.

Annex 8.9.1. Final evaluation of the student by the professional tutor

Annex 9.3. Veterinary specialist by the European Board of Veterinary Specialization (EBVS) and by Spanish Association of Veterinary Small Animal Specialists (AVEPA) for academic course 2016-17.

Annex 10.1.1. Main research groups of the FVL

Annex 10.1.2. Technology Transfers to Innovative Enterprises and Collaborative Projects (University-Enterprises).

Annex 11.1. Compliance between ESG directives, FIDES-AUDIT programme (SGIC) and monitoring / accreditation reports.