

Facultad de Veterinaria

# Self-Evaluation Report One (SER 1)







### Valencia, 2016

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Agradecemos a la Comisión Permanente del Consejo de Gobierno de la Universidad su apoyo y colaboración en todo momento, especialmente en la figura de su rectora Doña Rosa Visiedo Claverol.

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### Introduction

The Faculty of Veterinary Medicine is part of the CEU Cardenal Herrera University (CEU-UCH), which, in turn, forms part of the CEU San Pablo University Foundation (*Fundación Universitaria San Pablo-CEU*). This *Centro de Estudios Universitarios* (CEU, Centre for University Studies) is a non-profit charitable educational organization which has more than 80 years of experience in teaching.

The aim of the CEU San Pablo University Foundation, founded by the *Asociación Católica de Propagandistas* (ACdP), is to contribute to the improvement of society by means of the education provided at its campuses, using an educational model based on a holistic conception of each and every person. It also has a public role in advocating justice and in the defence of the human being, and its objectives focus on the quest for academic and professional excellence, innovation in its educational projects and instilling values and humane virtues into the students.

Academically, the Foundation is at the forefront of the educational field, using cutting-edge pedagogical techniques, and it is firmly oriented towards internationalization and towards ensuring that its undergraduate and postgraduate degree programmes correspond with today's job market. (http://www.ceu.es/ceu/mision-historia.php)

CEU launched Veterinary Studies in Valencia in 1996-97, as part of a Bachelor's Degree programme (known at that time as a *licenciatura*). During these first years of teaching, the campus was an affiliated college of the *Universitat Politècnica de València*. Later, in 1999, the CEU-UCH University was founded and, in 2000-01 the first students graduated in Veterinary Medicine. Since then, 16 further year-groups of veterinary students have graduated.

Since the degree programme was launched, based on a philosophy of **continuous improvement, quality** and **excellence**, the Faculty has always participated in all those national and international veterinary discussion forums which are open to it. For example, since **2000-01** the Faculty is a full member of the **Conferencia Española de Decanos y Decanas de Facultades de Veterinaria (Spanish Conference of Deans of Veterinary Faculties)**, participating fully since then in all its meetings and agreements. The Faculty also participated in ANECA's study project for the design of bachelor's degree programmes in Veterinary Medicine, which led to the publication of the White Paper known as the **Libro Blanco de Título de Grado en Veterinaria (2005)**.

As is also the case for all Spanish faculties offering a full degree programme in Veterinary Medicine, the Faculty voluntarily became a member of the **EAEVE** (European Association of Establishments for Veterinary Education) in **2001-02**, taking an active part in all of its discussion forums. In January **2004**, the **first visit of the EAEVE team of experts** took place, for the purpose of the auditing of the degree programme. The team submitted a report containing proposals for the improvement of the students' education (as also occurred with all other European faculties). During **2005-2006** the Faculty **voluntarily submitted to the assessment process undertaken by the Agencia Nacional de la Evaluación de la Calidad y Acreditación** (ANECA, the National Agency for Quality Assessment and Accreditation), which is a member of the *European Association for Quality Assurance in Higher Education* (ENQA). This process was completed with the visit of the assessment team in November 2006 and the issue of the corresponding report and the drafting of the Degree Programme Improvement Plan.

**2010-11** saw the commencement of the first year of the **Grado en Veterinaria** (Bachelor's Degree in Veterinary Medicine), verified by ANECA.

From the very beginning, one of the most characteristic aspects of the CEU-UCH Faculty of Veterinary Medicine, along with the desire to ensure quality through mediation with national and international quality assurance agencies, is our group of young academic staff. The average age is around 40, who feel a clear vocation for teaching, research and clinical practice. One of the strengths of the Faculty of Veterinary Medicine is that our academic staff come from different Spanish universities, and this has an impact on the education of our students due to the diversity of the teaching staff. Furthermore, they all have strong research profiles, as recognised by official assessments (known as sexenios), with practically all of the full-time academic staff holding a doctorate. There are also several members of the academic staff holding qualifications from European and American institutions and a very large number of professionals from clinical practice, industry and government agencies. All this ensures that a highly practical perspective can be given to the theoretical knowledge taught at the Faculty, and that the students are fully aware of the importance of technology transfer.

The Faculty also has great interest in encouraging research by students from their very first years: the **Congreso Internacional de Estudiantes** (International Student Congress) has now run to 13 editions, with the aim being to encourage interest in research amongst our students. Moreover, in the first semester of the degree programme, the students take the subject entitled Biostatistics and the Scientific Method in Veterinary Medicine. This seeks to develop the students' research skills from the first year of study, with a similar if lesser emphasis being placed on this issue in another first-year subject, Introduction to Veterinary Science.

Another notable characteristic of our Faculty is the importance given to student internships, both of the compulsory type, with are undertaken with very small groups of students, and the voluntary work experience that the students can undertake during the periods of the year in which there are no classes to attend. These internships take place both inside and outside of Spain, with more than 600 agreements in Spain and 100 international agreements in place with public and private organizations, at which veterinary surgeons may also undertake their careers once they have completed their studies. Moreover, the Faculty of Veterinary Medicine has pioneered, at the CEU-UCH, the practice of internships from the very first year of study outside of Spain. Internships can also be undertaken à la carte: students can choose the organization at which they wish to undertake an internship. If no agreement is in place with the Faculty, arrangements are then made for the recognition of the organization as a destination for internships. The quality of the organizations with which agreements are in place is overseen by the professional association of veterinary surgeons in the Valencia region, the Colegio Profesional de Veterinarios de la Comunidad Valenciana.

![](_page_7_Picture_0.jpeg)

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The fact that the University is relatively small, with 8500 students, facilitates a large degree of **interaction between the different degree programmes**, enabling us to take advantage of services which improve the quality of teaching and research at the Faculty of Veterinary Medicine, such as the creation of audiovisual content through the use of the University's television and radio studios. The University is firmly committed to internationalization, innovation and technology transfer, as is demonstrated by the University record and research findings in all areas.

The report concerning the 2004 visit of the EAEVE team of experts to audit the degree programme contained a number of proposals for improvement, and since then great efforts have been made to address the deficiencies identified:

- The implementation of the new curriculum has enabled practical content to be increased by 6%. In the old curriculum, 41% of the credits were practical in nature (out of 373 credits, 218 were theoretical and 155 practical) and these have now been increased to account for 47% of the credits (1796 hours are now practical out of the 3786 teaching hours). The students now spend a greater amount of time in clinical settings (528 hours compared with the former total of 127 hours).
- The students undertake veterinary inspections in abattoirs in groups of two (12 hours per student).
- The number of necropsies carried out has increased far beyond the minimum numbers proposed by the EAEVE (R18=2.08, R19=3.58 and R19=2.42).
- The CEU-UCH's veterinary referral hospital, the Hospital Clínico Veterinario-CEU, opened in 2001. Since 2008, it has provided a 24-hour emergency service, 365 days a year. In this same year a quality management system was put in place at the hospital (Norma UNE- EN- ISO 9001: 2008).
- The construction of the new hospital was completed in May 2016 and it will now house the large animals section. Up to 2015-2016 our student undertook their clinical internships with equines at the Faculty's Teaching Farm and the surgical procedures were carried out at external locations.
- The new curriculum contains a subject entitled Farm Animal Clinics, which is taught as part of the 9<sup>th</sup> semester. In this, each student undertakes a clinical internship with large animals, while always being accompanied by a veterinary surgeon hired as an external collaborating lecturer.
- The ratio of undergraduate students to FTE staff (R3) has improved during the 2014-15 year (10.84) in comparison with the three-year average (11.36). This ratio will continue to decrease as the increase in new students during the last three years will require the recruitment of further veterinary surgeons in order to teach subjects which form part of the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> years of study. It is noteworthy that the percentage of FTE of the total number of academic staff over the last three-year period is over 70% (2012-13: 82%; 2013-14: 78%; 2014-15: 80%).
- The three-year average ratio of FTE support staff to FTE academic staff (R5) is within the range indicated by the EAEVE (0.64). The number of FTE responsible for the care

and treatment of animals has risen from 2 to 4.5, those responsible for the preparation of practical and clinical teaching from 1.26 FTE to 4.53 FTE and those responsible for administration, general services, maintenance, etc., from 29.7 FTE to 49.3.

Since 2004, various construction projects have been carried out for all of the teaching areas for Veterinary Medicine, the lecture halls, the student study rooms, the offices of the teaching staff, the library, the Teaching and Research farm, and the Hospital Clínico Veterinario, and from January 2017 new teaching and research laboratories will be available.

The Teaching and Research Farm, opened in 2006, is located in Náquera, 11km from the Faculty classrooms. It covers 38,784 m<sup>2</sup>, with 2446 m<sup>2</sup> being covered by buildings. It has facilities to house cows, small ruminants, poultry, rabbits, equines and dogs, along with four examination rooms, five laboratories, and two support classrooms. The students are able to travel to the farm using a scheduled shuttle bus from the University or by using their own vehicle.

The new Faculty of Veterinary Medicine opened in 2012 and is located in Alfara del Patriarca. It has 11 lecture halls of different sizes with a total surface area of 797 m<sup>2</sup>, 10 support rooms for tutoring sessions or for use by students (129 m<sup>2</sup>), 2 computer rooms, a room with microscopes for the viewing of tissue samples (171 m<sup>2</sup>), and 21 offices for the academic staff (368 m<sup>2</sup>).

The *Hospital Clínico Veterinario* (HCV-CEU, the Clinical Veterinary Hospital) will open in June 2016. This new building has a gross floor space 4.500 m<sup>2</sup>, and is located 200 metres away from the Faculty building. The HCV-CEU has clinical facilities for large animals and pets, two support classrooms for clinical teaching, an anatomy and dissection room, a necropsy room, a microscopy room and a histopathology laboratory.

At the current time, the following degree programmes are offered by the CEU-UCH Faculty of Veterinary Medicine:

- Bachelor's Degrees:
  - o Veterinary Medicine (in Spanish).
  - Linguistic Excellence in English group (Veterinary Medicine). From 2014-15.
  - o Linguistic excellence in French group (Médecine Vétérinaire). From 2012-13.

For the linguistic excellence groups, teaching during the first three semesters is in French or English, and from the fourth semester onwards teaching takes place in Spanish, although some activities such as seminars, special lectures, etc., continue to take place in these other languages, and teaching material is also made available in French and English.

- Postgraduate:
  - o Master's Degree in Food Safety
  - o Certificate in Diagnostic Imaging in Small Animals
- PhDs:
  - Doctoral programme in Veterinary Medicine. Currently being phased out.
  - Doctoral programme in Health Sciences and Technology. Interdisciplinary and interuniversity programme.

![](_page_9_Picture_0.jpeg)

### **CHAPTER 1. OBJECTIVES**

#### **1.1 FACTUAL INFORMATION**

The main goal of our Faculty is to provide a high quality veterinary degree programme. Training must cover the broad requirements for veterinary graduates, and comply with EU Directives. Qualified veterinary surgeons must be capable of working as independent experts in various veterinary posts. Also, the Faculty has a duty to serve the veterinary profession and the community as a whole.

The Faculty of Veterinary Medicine forms part of the organizational structure of the CEU-UCH<sup>1</sup> and its official list of objectives is set by its Governing Council. The permanent members of the Governing Council meet on a weekly basis to monitor progress in achieving these priority objectives.

**Our mission**: we are a Catholic University which seeks to pioneer the development of innovative educational projects. Our aim is to help those studying with us to understand their chosen discipline and to forge a professional career based on integrity and responsibility. The values of Christian humanism form our frame of reference, as well as the basis for our thought and our actions for the improvement of society.

We are committed to a globalized society, to which we would like to contribute:

- People with a well-rounded education, who are ready to take part in public life and contribute to the improvement of their environment;
- Important research and the transfer of knowledge and innovation;
- An entrepreneurial spirit which can be employed in business and social projects.
- Our vision: our aspiration is to consolidate our position as a global university, which is innovative in spirit and entrepreneurial in its actions, transmitting these attitudes to the university community, so that they can in turn transfer them to society; a university which is committed to educating people who are valuable in every way (intellectually, professionally and at the human level); a university which, through its own actions and those of its graduates, is determined to make a positive impact on society and become a model of higher education to be imitated across the world. Currently, the CEU-UCH has four over-arching strategies<sup>2</sup>:
  - Internationalization
  - Employability and entrepreneurship
  - Serving people and society
  - Research and innovation

Furthermore, all the study programmes offered by the CEU-UCH University, including the Bachelor's Degree in Veterinary Medicine, undergo two processes of assessment, analysis and monitoring: one external and one internal. These are as follows.

1) External assessment body (AVAP):

The *Agència Valenciana de Evaluació i Prospectiva* (AVAP, the Valencian Agency for Assessment and Forecasting) receives and analyses every two years a monitoring report, in which different criteria related to the study programmes are assessed. Currently, the previous two assessment reports for the Faculty have been positive<sup>3</sup>.

2) Internal Quality Assurance System (SGIC):

The above-mentioned monitoring reports must also be supported by the implementation of a *Sistema de Garantía Interno de Calidad* (SGIC, Internal Quality Assurance System) which enables possible improvements and best practices for the study programmes to be detected. In this way, an action plan can be drawn up which identifies areas for improvement, enables planning of the proposed improvements to be made and facilitates the monitoring of these improvements.

Both the monitoring reports and the information from the SGIC form part of the evidence required for the renewal of the accreditation of the study programmes. This renewal must be requested by the AVAP and ratified by the *Consejo de Universidades* (University Council), which reports to the *Ministerio de Educación, Cultura y Deporte* (Ministry of Education, Culture and Sport).

The characteristics of the SGIC of our University are described below. This system, since it was assessed by ANECA in July 2011, has enabled the improvement plans of our study programmes to be drawn up.

The *Manual de Calidad*<sup>4</sup> (Quality Manual) and the *Manual de Procesos*<sup>5</sup> (Process Manual) can be accessed via the CEU-UCH website. These describe, on the one hand, the fundamental parts of the SGIC system (its structure, quality policy and objectives, and the mechanisms of quality assurance), and, on the other, the set of procedures derived from the process maps created for the implementation and maintenance of these same procedures.

The different services and departments provide the various indicators and evidence corresponding to the processes in which they participate. The analysis of these is crucial for decision-making and for the improvement in quality of the study programme.

The data are analysed by the persons responsible for each study programme –ex-officio members of the Quality Assurance Commissions (QACs, *Comisión de Garantía de Calidad*<sup>6</sup>) – and it is in each QAC where each possible action for improvement is considered, debated and proposed, along with the best practices emerging from each academic year. These actions for improvement and best practices are recorded in the QACs' annual reports in order to ensure the implementation

<sup>1</sup> https://www.uchceu.es

<sup>2</sup> https://www.uchceu.es/universidad/documentos/documento-estrategico-2015.pdf

<sup>3</sup> https://www.uchceu.es/estudios/grado/veterinaria/seguimiento

<sup>4</sup> https://www.uchceu.es/estudios/grado/veterinaria

<sup>5</sup> https://www.uchceu.es/docs/calidad/sgic/manual-procesos.pdf

<sup>6</sup> https://www.uchceu.es/docs/calidad/sgic/comisiones-calidad.pdf

and maintenance of these are monitored, enabling the general functioning and progress of the study programme to be improved.

The SGIC is subject to a permanent process of improvement, with the annual review of all of the processes of its participants ensuring that this is the case. One of the annual outputs of this process is a document entitled *Modificaciones en los Procesos del SGIC<sup>7</sup>* (Modifications to the SGIC Processes) which examines each of the system's processes and indicators. The reports published so far demonstrate that practically all of the processes which make up the SGIC have been reviewed and modified in order to ensure that the system for the gathering and continuous analysis of information is the best possible.

The SGIC plays an essential role with regard to the performance of the external processes which assess the quality of the qualifications offered by the University. The design of the Bachelor's Degree in Veterinary Medicine has undergone modifications as a result of the information provided by the SGIC.

Those responsible for the different study programmes have access to all of the information, indicators and evidence produced by the above-mentioned processes and, on this basis, they may propose actions for improvement or document the best practices they have implemented, which are then recorded in the QAC's annual report.

#### **1.2 COMMENTS**

The general objectives that CEU-UCH has set itself and is achieving are:

**Internationalization:** Table 9.2 shows that the number of international students has undergone a significant increase in recent years. In order to facilitate their integration, the Office of the Vice-Rector for Students and University Life has launched a service known as Campus Life, which is described in section 5.15.2.

- Employability and entrepreneurship: Section 5.15.3 contains a description of the activities organized at the CEU-UCH to enhance the employability and foster entrepreneurship among our students.
- Serving people and society: By incorporating the subjects of *Historia de la Veterinaria* (History of Veterinary Medicine), *Antropología Filosófica* (Philosophical Anthropology) and *Doctrina Social de la Iglesia* (The Church's Social Doctrine), the goal is to provide an education which considers the development of the whole person and their excellence in the future. In order to promote volunteering and the creation of charitable projects the *Cátedra de Solidaridad* (Chair of Solidarity) was established (see section 5.1.5.2).
- Research and innovation: In section 13, the activities carried out to encourage student involvement in research are described. The activities undertaken to encourage

innovation among the academic staff are described in section 5.1.1.2.

- The drafting of monitoring reports and the information provided by the SGIC ensure that the education provided by the UCH-CEU's Bachelor's Degree in Veterinary Medicine is of the appropriate standard.
- The Faculty's main strengths and weaknesses are as follows:

#### STRENGTHS:

- A relatively young faculty (20 years old), but one with sufficient experience.
- Highly motivated academic staff focused on quality and excellence in teaching.
- The campus is well served by public transport, with good links to the nearby towns and the city.
- A relatively small university, enabling fluid communication between the different degree programmes and ancillary services, ensuring good support for teaching with regard to the creation of audiovisual and other teaching materials.
- Fluid communication with professional associations, public and private bodies and the society within which the study programmes are taught.
- Practically all the full-time academic staff hold a doctorate.
- New teaching facilities: the Hospital Clínico Veterinario, lecture halls, study rooms, lecturers' offices, the Teaching and Research Farm, teaching and research laboratories, etc.
- A large number of national and international agreements for the undertaking of external internships by our students.
- Within the Bachelor's Degree in Veterinary Medicine, there is a high degree of research transfer from the different research groups to society and the students.
- The internationalization both of the Faculty and the University, greatly enriching all our students culturally and linguistically.
- Free language classes for the students, enabling them to develop their oral and writing skills for the public domain, which will be of use to them in the search for a job, for entrepreneurship, etc.
- A suitably equipped library, both in terms of its facilities and its holdings.
- The one-to-one sessions and the attention provided to students is something which sets our Faculty apart.
- The Hospital Clínico Veterinario and the Secretary's Office of the Faculty have been awarded with UNE-EN-ISO 9001:2008 certification, with regard to the quality of these services' procedures.
- Good graduate employment rate.

#### WEAKNESSES:

 For the intake for the Bachelor's Degree in Spanish, it would be desirable for the admission profile of suitable candidates to be more clearly defined, with regard to the

<sup>7</sup> https://www.uchceu.es/conocenos/udec

![](_page_12_Picture_0.jpeg)

knowledge, skills and aptitudes required, and to establish mechanisms that would allow this admission profile to be determined.

- The high number of groups across all teaching activities, created in order to maintain an appropriate number of students in each group, could place a strain on the academic staff.
- Greater presence of employers and graduates is needed in decision-making with regard to the employability which the study programmes provide.
- Few of the part-time lecturers hold a doctorate.
- A system for the promotion of the administrative support and service staff must be created, in order to provide them with greater job satisfaction.
- Difficulties in ensuring the academic staff continue their keep their skills and knowledge up to date due to teaching and management commitments. Therefore a plan which takes all this into account is required, encouraging the clinical, teaching and research re-training of the academic staff.
- More administration and service staff are required, who possess the right level of language skills. They would preferably be native speakers from some of the countries

from which the students in the linguistic excellence groups originate.

- Few in-house courses aimed at students, professionals and employees from across the different areas of the veterinary profession.
- Few university-owned leisure facilities for students on campus, such as dining rooms, sports facilities, etc.
- Little participation by students in discussion forums and governing bodies.
- Poor student mobility: short-term student exchanges during the Bachelor's Degree with veterinary faculties across Europe should be encouraged.

#### **1.3 SUGGESTIONS**

As the Faculty of Veterinary Medicine forms part of the organizational structure of the CEU-UCH University, then the objectives of the University are also those of the Faculty, but the Hospital Clínico Veterinario, the Teaching and Research Farm also have their own strategic plan. This is periodically updated in order to establish specific objectives.

![](_page_13_Picture_0.jpeg)

### CHAPTER 2. ORGANIZATION

#### 2.1 FACTUAL INFORMATION

#### 2.1.1 DETAILS OF THE FACULTY

#### Name of the Faculty

Facultad de Veterinaria

#### Address

C/ Tirant lo Blanc, 7. 46115. Alfara del Patriarca (Valencia). Spain

Telephone: (+34) 96 136 90 00 Fax: (+34) 96 139 52 72.

Website: https://www.uchceu.es/estudios/grado/veterinaria

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#### **Title and name of the Dean:** Dr Santiago Vega García (DVM/PhD)

Address of the University:

Universidad CEU Cardenal Herrera Av. Seminario s/n. 46113, Moncada (Valencia), Spain

#### 2.1.2 DETAILS OF THE LEGAL AUTHORITY OVERSEEING THE FACULTY

As has been described earlier, the Faculty of Veterinary Medicine forms part of the organizational structure of the CEU-UCH University. The CEU-UCH is an academic institution set up by the *Fundación Universitaria San Pablo-CEU* (FUSP-CEU, the CEU San Pablo University Foundation), and it was established by means of Law 7/1999 of the Cortes Valencianas (the Valencian parliament), on 3<sup>rd</sup> December<sup>8</sup>, in accordance with article 27.6 of the Spanish Constitution<sup>9</sup>. The **Rector** of the CEU-UCH is **Dr Rosa María Visiedo-Claverol**.

The University consists of four Faculties (the Faculty of Veterinary Medicine; the Faculty of Health Sciences; the Faculty of Humanities and Communication Sciences; and the Faculty of Law, Business and Political Sciences) and the Technical School of Design, Architecture and Engineering. The University provides teaching in three different campuses in three provinces of Spain: Moncada (in Valencia), Elche (in Alicante) and Castellón.

As with any large organization, the CEU-UCH has a complex governance system made up of a multitude of organizational units. Its mission is defined in its organizational and operational regulations<sup>10</sup> and the majority of its policy and administrative work is carried out by a large number of committees. The University's decisions are taken by the CEU-UCH Governing Council; the Statutes of the CEU-UCH and the operational regulations of the Governing Council must be approved by the Board of Trustees (*Patronato*) of the CEU-UCH and then sent on, for review, to the Board of Trustees of the FUSP-CEU.

**Board of Trustees** (*Patronato*): the Board of Trustees of the CEU-UCH is the highest level of representation and governance of the University's organizational structure, acting on behalf of the Foundation, the University and the interest of the wider community.

#### Collegiate academic bodies:

- The Senate (Claustro): This is the highest representative body of the university community. It has ex-officio and elected members, with different levels of the university community all being represented.
- The **Governing Council** (*Consejo de Gobierno*): This is the collegiate body responsible for the day-to-day governance of the University. Its agreements on matters within its jurisdiction are binding for any other collegiate body or university official at a lower hierarchical level. Its members include the Rector, who chairs the Council, the Vice-Rectors, the General Secretary (who also acts as the Secretary of the Council), the Chief Executive, the deans of the different faculties, the school or campus directors, and the heads of departments from each faculty, school or campus.
- The Faculty Boards (Juntas de Facultad): This is the collegiate body governing each faculty, which carried out its functions in accordance with its obligations deriving from the agreements approved by the Board of Trustees, the Governing Council and rulings made by the Rector.
- The Departmental Councils (Consejos de Departamento): The Departmental Council of each Department is its governing body and it carries out its functions in accordance with the decisions made by the governing bodies of the University and of its own faculty, following the principles established by the Organizational and Operational Regulations.

#### 2.1.3 RULES CONCERNING THE APPOINTMENT OF ELECTED FACULTY OFFICIALS

The **Dean** is the Faculty's representative and is responsible for the Faculty's day-to-day management. He or she is chosen by the Board of Trustees, following a recommendation by the Rector, from among the University's doctorate-holding academic staff.

The **Vice-Dean** is named, and dismissed, by the Rector, following a recommendation by the Dean and the approval of the Board of Trustees, from among the teaching staff at the Faculty of Veterinary Medicine.

<sup>8</sup> http://www.docv.gva.es/datos/1999/12/07/pdf/1999\_10344.pdf

<sup>9</sup> http://www.congreso.es/consti/constitucion/indice/sinopsis/sinopsis.jsp?art=27&tipo=2

<sup>10</sup> https://www.uchceu.es/docs/normativa/normas-organizacion-funcionamiento-UCH.pdf

The **Faculty Secretary** is named, and dismissed, by the Rector, following a recommendation by the Dean and with the approval of the Board of Trustees, from among the Faculty's academic staff.

The **Heads of Department** represent their departments and are responsible for their day-to-day management, chairing departmental meetings. They are named, and dismissed, by the Rector, following a recommendation from the Dean and the approval of the Board of Trustees, from among the University's doctorate-holding academic staff.

The **Departmental Secretaries** assist the Heads of Department in their day-to-day management, taking the minutes at their meetings. They are named by the Head of Department from among the academic staff of the Department.

**Annex 1** contains a more detailed description of the organizational structure of the CEU-UCH.

#### 2.1.4 RESPONSIBILITIES, CONSTITUTION AND FUNCTION OF THE MAIN ADMINISTRATIVE BODIES OF THE FACULTY

#### 1. Departments

The departments are responsible for the coordination of teaching in one or more knowledge areas, in one or more of the campuses, as specified in the teaching program of the University and in relation to the areas of responsibility assigned by the Senate. The Departments are also responsible for the structure that supports the academic and research initiatives of the academic staff within the Department, and for performing those functions that are determined in the present organizational and operational regulations.

The Faculty of Veterinary Medicine is divided into two departments (the Department of Animal Medicine and Surgery, and the Department of Animal Production and Health, Public Veterinary Health and Food Science and Technology), covering the four knowledge areas: pure science, animal production, clinical subjects, and professional knowledge and food hygiene are present.

**Departmental Commission:** The members of this commission include the Head of Department, who chairs the Commission, and all of the academic staff belonging to this area of knowledge. The Departmental Commission draws up its own directives and ensures that the teaching and research of its members proceeds correctly, in coordination with the Dean and the corresponding Vice-Rector.

#### 2. Commissions:

- Advisory Commission (Comisión Consultiva): This body provides guidance with regard to the drafting and continuous updating of the curriculum for the Bachelor's Degree in Veterinary Medicine. Its members are made up of representatives from the main public and private sectors within the veterinary field.
- Bachelor's Degree Commission (Comisión de Grado): This commission was responsible for developing the curriculum for the new Bachelor's Degree in Veterinary Medicine, in accordance with the guidelines of the

European Higher Education Area, and it specified the competencies, knowledge and skills that students must acquire during their education.

- Biosafety Commission (Comisión de Bioseguridad): Responsible for identifying, controlling, reducing, and educating about those biological, chemical and physical risks generated by the teaching and research activities, both in the pure and applied sciences.
- Commission for the Improvement of Academic Performance (Comisión de Mejora del Rendimiento Académico): This commission reviews those subjects or assessment materials whose fail rate is 80% or higher, or for which 65% of students or higher cannot reach the minimum mark (4 out of 10) at which their final mark can be supplemented with other materials, or those for which the number of passes exceeds 95% of those assessed. The commission will examine and study the situation and will then draft and send a report to the senior management of the Faculty, who will then decide on the measures necessary for the improvement of the academic results of that subject.
- Quality Assurance Commission (Comisión de Garantía de Calidad): Responsible for reviewing the Faculty's Sistema Interno de Garantía de Calidad (SIGC, Internal Quality Assurance System), to assess the information obtained from it, and to propose corrective measures in order to improve in those areas which are deemed to require it. These proposals, together with an annual report, are sent to the University's Governance Team for their approval and subsequent implementation.
- Commission for the Renewal of Accreditation of the Master's Degree in Food Safety (Comisión de Renovación de la Acreditación del Master de Seguridad Alimentaria): Responsible for gathering the information necessary for the drafting of a self-evaluation report of the Master's Degree in Food Safety, in order to renew the accreditation for the teaching of this study programme. Renewal of this accreditation is necessary for the continuance of this study programme.
- Validation Commission (Comisión de Convalidaciones): this authorizes the reports sent by the different Departments with regard to validation requests made by students, with regard to subjects, diplomas and courses undertaken externally being considered equivalent to ones offered by the university. The Vice-Dean of the Faculty carries out the validation of these reports.
- AVAP Commission (Comisión AVAP): Responsible for gathering the information necessary for the drafting of a self-evaluation report of the Bachelor's Degree in Veterinary Medicine, in order to renew the accreditation for the teaching of this study programme. Renewal of this accreditation is necessary for the continuance of this study programme.
- EAEVE Commission (Comisión EAEVE): Responsible for gathering the information necessary for the drafting of a self-evaluation report of the Bachelor's Degree in

Veterinary Medicine, in order to renew the accreditation for veterinary studies from the EAEVE.

• Annex 2 details the composition of these commissions.

**3. Individual posts:** The Dean of the Faculty may propose individuals to the Rector in order to fill individual management posts in areas which are considered to be of strategic interest for the correct functioning of the Faculty (Director of the Farm, Director of the Hospital, Internship Co-ordinators, etc.). **Annex 3** contains a list of these individual posts.

#### 2.1.5 INVOLVEMENT OF THE VETERINARY PROFESSION AND GENERAL PUBLIC IN THE RUNNING OF THE FACULTY

The Faculty of Veterinary Medicine was founded in order to meet the demand from society for the training of veterinary professionals in the Region of Valencia (the *Comunitat Valenciana*). Society has itself played, and continues to play, an undeniable role in the education of students by means of the review of successive curricula that have been used in the Faculty of Veterinary Medicine, and most especially the current curriculum has been reviewed **Advisory Commission**, which is made up of representatives from the main public and private sectors within the veterinary field.

Close collaboration takes place, at the regional level, between veterinary professionals from the various fields with the Faculty. Great efforts have been made to recruit the greatest number possible of clinically active veterinary surgeons as part-time lecturers. Furthermore, clinical veterinary surgeons routinely refer complex cases to our facilities for further investigation and resolution; this is carried out not only for the purposes of teaching but also for the provision of a service, responding to the demand of some of veterinary clinics in the Region of Valencia, by offering a complete range of specialisms. Due to the need to maintain close and continuous contact with veterinary professionals, mainly within the Region of Valencia, agreements have been signed with the professional veterinary

governance structure of which it is part.

association in Valencia (the *Colegio de Veterinarios de Valencia*), the regional government (the *Generalitat Valenciana*) and regional and national professional veterinary associations.

#### 2.2 COMMENTS

The CEU-UCH Faculty of Veterinary Medicine is the oldest private faculty of its type in the Iberian Peninsula. 16 student intakes have now graduated as veterinary surgeons and our teaching staff have now acquired a wide range of knowledge and technical, theoretical and practical skills which can be applied in higher education.

We maintain a close relationship with the governing bodies of veterinary education in Spain at a regional and national level, such as the *Conferencia de Decanos de las Facultades de Veterinaria* (Conference of Deans of Veterinary Faculties), *Consejo General de Colegios Veterinarios* (General Council of Veterinary Colleges), and the *Ministerio de Educación, Cultura y Deportes* (the Ministry of Education, Culture and Sport).

We were also pioneers in Spain in the application of the Bologna Process (1999), which concerned the implementation of new curricula and teaching methods. An example of the latter is the Plato Programme (Programme for Academic Excellence and Knowledge Organization), a new system of teaching and learning imported from the Harvard University, which encourages continuous assessment, interactive participation and the use of case studies, amongst other novel pedagogical activities.

For more details on the organizational structure of the University and the relationship between its organizational units, please visit the University's website.<sup>11</sup>

#### 2.3 SUGGESTIONS

Taking into account the increase in the number of academic staff during recent years, it may be desirable to increase the number of departments to enhance management processes.

![](_page_16_Figure_15.jpeg)

![](_page_17_Picture_0.jpeg)

![](_page_17_Figure_1.jpeg)

Diagram of the internal administrative structure of the Faculty itself (councils, committees, departments, etc.).

### **CHAPTER 3. FINANCES**

#### **3.1 FACTUAL INFORMATION**

#### 3.1.1 GENERAL INFORMATION

As has been said, the CEU Cardenal Herrera University forms part of the CEU San Pablo University Foundation and its economic model corresponds with that of the needs of a private institution.

The Faculty is funded through the University, which manages the economic resources deriving from fees paid by the students for the teaching and from the revenue generated by the *Hospital Clínico Veterinario* (CEU-HCV).

Within the University, funds are assigned to each of the Faculties in accordance with the revenue obtained and the needs of each of them. Each Faculty must meet certain minimal sustainability criteria.

The budgets for each academic year begin to be drawn up in the January of the previous academic year. For this purpose, the Heads of Department request the academic staff to draw up their own budgets which take into account the equipment and supplies they will need for the following academic year. In turn, the directors of the laboratories, the Teaching and Research Farm and the CEU-HCV, and the general services of the University draw up their own operational budgets. All of this information is sent to the Chief Executive's Office. Once the Chief Executive's Office has examined the budgets using unit costs, a meeting is held with the Deans of the different Faculties in order to implement any necessary adjustments. Afterwards, the budget is then sent to the financial staff of the CEU San Pablo University Foundation, then sending it on to the Foundation's Board of Trustees for approval.

Requests by the Dean of the Faculty for improvements to the facilities and the purchase of large items of equipment must be assessed both by the Rector of the CEU-UCH and the Foundation's Board of Trustees, which takes the final decision on whether to accept any such request.

#### 3.1.2 INFORMATION ON EXTRA REVENUE

When the Faculty generates additional revenues (from research projects, studies, agreements, etc.), these have a fixed purpose and are spent accordingly.

The students of the University must pay the registration and course fees, which are set on an annual basis by the Board of Trustees of the CEU San Pablo University Foundation on the basis of a recommendation from Directorate-General of the CEU San Pablo University Foundation.

#### 3.1.3 OVERVIEW OF INCOME AND EXPENDITURE

The funding of ordinary running costs forms part of the annual budget of the Faculty of Veterinary Medicine and extraordinary investments are made from the University's general budget.

Decisions regarding which investments constitute a priority are taken on the basis of proposals made by Faculty management and these must be approved, just as is the case with the budget, by the Board of Trustees of the CEU San Pablo University Foundation. The decision-making process in this regard is as follows: the Faculty of Veterinary Medicine identifies its needs and communicates them to the Chief Executive's Office of the University so that they can be put forward for consideration by the Directorate-General of the CEU San Pablo University Foundation and subsequently presented to the Foundation's Board of Trustees, which takes the final decision.

#### Table 3.1. Income and Expediture<sup>1</sup>

	2012-13	2013-14	2014-15
Operational revenue	6,732,426	7,719,558	8,804,013
Sales and other commercial revenue	6,406,942	7,446,423	8,576,780
Revenue from not-for-profit activities	78,873	60,264	37,470
Other operational revenue	246,610	212,872	189,763
Operational costs	(4,745,684)	(4,907,215	(5,413,766
Supplies	(443,380)	(495,191)	(540,931)
External services	(1,050,361)	(1,136,934)	(1,271,272
Taxes	(32,142)	(13,994)	(18,760)
Salaries	(2,586,665)	(2,607,027)	(2,822,483)
Social security contributions	(633,136)	(654,069)	(760,320)
Earnings before Grants, Amortization and Provisions	1,986,741	2,812,343	3,390,246
Amortization	(318,459)	(301,248)	(307,862)
Provisions and other expenses	(30,814)	(98,564)	(61,160)
Indirect costs	(349,273)	(399,812)	(369,022)
Operating profit	1,637,468	2,412,531	3,021,224
Charge by UCH Central Services & Foundation	(1,384,927)	(1,501,030)	(1,651,851)
Net operating profit (A)	252,541	911,501	1,369,373

1) Data supplied by the Office of the Chief Executive of the University.

![](_page_19_Picture_0.jpeg)

#### **3.2 COMMENTS**

Until 2015-2016, the budgets were managed by the financial unit of the CEU San Pablo University Foundation, having first passed though the Chief Executive's Office of the CEU-UCH. This slowed the whole process down, as, from the initial request to the actual purchase being made, the request had to pass through several different filters.

In December 2015, the University implemented a new IT-based purchasing system. This new process consists of four phases: the article is requested by a designated person at each organizational unit, the request is then subject to approval by the senior manager of that unit (the Dean, Director of the Teaching Farm, Director of the Laboratories or the Director of the HCV-CEU), the article is purchased, and then finally received, all of which makes the process run more smoothly.

#### **3.3 SUGGESTIONS**

Although budget management has improved with this new system, it would be desirable for each organizational unit to be able to manage its budget autonomously.

### **CHAPTER 4. CURRICULUM**

#### 4.1 FACTUAL INFORMATION

- Indicate whether there is a defined national curriculum and (if applicable) how and by what body decisions are taken on this.

In Spain, all undergraduate and postgraduate studies are regulated by Royal Decree 1393/2007 of 29<sup>th</sup> October and Royal Decree 861/2010 of 2<sup>nd</sup> July. When the current Bachelor's Degree programme was designed, the legislation was taken into account, including all the competencies described in Order ECI 333/2008 of 13<sup>th</sup> February, which established the requirements for the verification of official university qualifications in Veterinary Medicine. All of these laws derive from the application to Spanish law of European Directive 78/1027/ EEC, modified by Directive 2005/36/EC of the European Parliament and the Council of 7<sup>th</sup> September, on the recognition of professional qualifications. This veterinary degree has 5 years (full time) and 300 ECTS.

# - Describe the degree of freedom that the Faculty has to change the curriculum.

On the condition that legislation is complied with, the Faculty can organize the study programme in whichever way it considers most appropriate. Once the proposed curriculum has been drawn up, it is compulsory for this to be sent to ANECA for assessment. ANECA then composes a report which will detail its approval or rejection of this proposal and the reasons for this. The current curriculum was approved by ANECA on 15<sup>th</sup> March 2010, and registered under number 2501582 at the *Registro de Universidades, Centros y Títulos* (RUCT, Register of Universities, Centres and Qualifications), which is run by the Ministry of Education, Culture and Sport, being published in the *Boletín Oficial del Estado* (*BOE*) on 20<sup>th</sup> April 2011. The curriculum was modified in accordance with Ruling of the CEU-UCH of 18<sup>th</sup> October 2012 (published in the *BOE* on 13<sup>th</sup> November 2012).

-Outline how decisions on curriculum matters and course content are taken within the Faculty

-Outline how decisions are taken on the allocation of hours between the various subjects and on the balance between theoretical and practical teaching (Tables 4.1, 4.2 and 4.3).

The Bachelor's Degree Commission was responsible for co-ordinating the consultation process for the drafting of the curriculum. The Commission proposed the number of credits assigned to each subject and also the distribution of theory classes, practical content and the type of exam. To carry out these tasks, the Bachelor's Degree Commission received support from the Advisory Commission. This commission met on two occasions for the purpose of gathering opinions on the needs that university education must address. The Bachelor's Degree Commission undertook an internal consultation process, which involved requesting relevant information from each area of knowledge, initially from the academic staff working in these areas. Once the suggestions had been recorded, a second provisional document was drawn up and sent to all of the Faculty academic and non-academic staff and the student committee, so that they might consider it and make suggestions for improvements and/or modifications. After incorporating the suggestions which were considered to be justified, the final document was drawn up and presented to the University's Governing Council, and finally to the University's **Board of Trustees** as the highest collegiate body responsible for the approval of study programmes. Once approval had been given by Board of Trustees, it was sent to ANECA, which approved it on 15th March 2010 (BOE of 20th April 2011).

Once the curriculum had been approved, the **teaching guidelines** were drawn up by the subject co-ordinators, which these being subject to review by the Vice-Dean who assessed them during the months of June and July. For the dual purpose of ensuring that the subject teaching guidelines are reviewed every year and that there is no duplication between them, the CEU-UCH has implemented what is known as the *Plan de Mejora Docente* (PMD, Teaching Improvement Plan), whose objectives include the updating of content, teaching systems and the assessment of all subjects of the Bachelor's Degree at least every three years.

The new curriculum (which met the requirements of European Higher Education Area, EHEA) was implemented during the 2010-11 academic year and this replaced the former curriculum established in 2004 (which formed part of the old *Licenciatura* degree programme, which did not meet EHEA requirements). One of the priority objectives of the new curriculum was to integrate different study materials within a single subject, especially in the more advanced years. In this way, the students would gain an overview and better understand the concepts concerning professional activity on pig farms, for example, if clinical and healthcare knowledge and pig farm management and production were considered together at the same time during their studies.

The structure of this new curriculum has enabled practical content to be increased by 6%. Furthermore, the new curriculum has meant that theory classes are now taught in smaller groups, as, in the old curriculum, theory classes only took the form of lectures, whereas currently 26% of theory classes take the form of seminars and 18% involve self-directed learning, with this taking the form of producing assignments with the support of the teaching staff.

The Bachelor's Degree in Veterinary Medicine is taught in Spanish, English and French, encouraging internationalization and cultural exchange. The linguistic excellence in French group began operation in the 2012-13 academic year and the linguistic excellence in English group began in 2014-15. In these linguistic excellence groups, the first three semesters are taught completely in English and French, with teaching from then on taking place in Spanish, although some activities continue to take place in English and French (seminars, special lectures, etc.), and also some teaching materials are also written in English or French.

- Indicate the presence and disposition of an integrated curriculum. Describe the degree of integration present and the amount of time devoted to EU-and non EUlisted subjects (Table 4.4).

One of the objectives of the new curriculum was to achieve the integration of different study materials within the same subject, especially in more advanced years. In order to ensure this integration is achieved, before the teaching guidelines are distributed each year, the academic staff in the different areas hold a meeting and plan this integration, while aiming to avoid any duplication. The minutes of these meetings are sent to the Vice-Dean and the Secretary of the Faculty so that they can be registered and archived.

The objectives of the Bachelor's Degree in Veterinary Medicine set by the CEU-UCH also include specific details deriving from this University's Catholic vocation, which is the basis for our commitment to affording our students a holistic and personalized education, as well as providing them with the skills they will need to meet the needs and demands that society places on veterinary professionals. Thus, by incorporating subjects such as the History of Veterinary Medicine (the only Spanish veterinary faculty for which this is part of the core curriculum), Philosophical Anthropology and the Church's Social Doctrine, the aim is to offer an education which enables the full development of each person and facilitates achieving excellence in their future career. For this purpose, we make use of the most basic elements of European and western culture: theology, ethics and the humanities. These subjects make up 150 hours out of the total of 3786 hours which make up the study programme (Table 4.1).

#### 4.1.1 POWER OF SUBJECTS AND TYPES OF TRAINING

### 4.1.1.1 POWER OF SUBJECTS

The CEU-UCH's Bachelor's Degree in Veterinary Medicine is mostly made up of core (i.e. compulsory) subjects, with only 6 credits out of the 300 for the degree corresponding to elective subjects. (Tables 4.1, 4.2, 4.3 and 4.4.)

There are four elective subjects on offer (Table 4.3), with one elective subject being chosen in the 4<sup>th</sup> semester and another in the 8<sup>th</sup>. Students may also fulfil these 6 credits by certifying their participation in certain extracurricular activities (such as volunteering, accredited, official training courses, voluntary internships, etc.)

Students carry out their compulsory external internships as part of the subjects entitled Farm Animal clinics (9<sup>th</sup> semester), Food Technology, Hygiene and Control (9<sup>th</sup> semester), and the *Practicum*, or main internship (10<sup>th</sup> semester). The organization of these is described in sections 4.1.4 and 4.1.5.

#### 4.1.1.2 TYPES OF TRAINING

Tables 4.1, 4.2, 4.3 and 4.4 display the training activities that a student of Veterinary Medicine must participate in. For the inclusion of the number of hours in one group or another, the description given by the EAEVE has been used.

#### 4.1.1.2.1 THEORETICAL TRAINING

**Lectures:** Theoretical classes in the form of lectures have large numbers of students (around 70 students).

**Seminars:** The student numbers in these groups are smaller (approximately 35 students) and, depending on the subject, they are used to resolve problems, to read and discuss articles, discuss clinical cases, to employ audiovisual materials, etc. In the early years of study, the students require greater support from the academic staff during the seminar and this support decreases in later years, as the students gain greater knowledge of the field and feel more autonomous.

**Self-directed learning:** This refers to the assignments the students have to produce, with guidance from the academic staff, in the majority of subjects from the  $3^{rd}$  year onwards (Table 4.1).

#### 4.1.1.2.2 SUPERVISED PRACTICAL TRAINING

Laboratory and desk-based work: these groups consist of 10-14 students for the practical training sessions which take place in the laboratory, and 20-25 students for those practical sessions which take place in a classroom or IT suite. This includes practical sessions in the laboratory (histology, parasitology, genetics, etc.), along with all those practical sessions which do not involve working directly with an animal.

Non-clinical animal work: depending on the subject involved, the number of students ranges from 2 (practical sessions at abattoirs) to 14 students (laboratories).

Clinical work. The students are split into groups of 2-5 to undertake their sessions at the *Hospital Clínico Veterinario* (HCV-CEU) and the University farm, whereas the number of students is reduced to 1-3 when undertaking practical clinical sessions with livestock.

#### 4.1.2 UNDERGRADUATE CURRICULUM FOLLOWED BY ALL STUDENTS

#### 4.1.2.1 CURRICULUM HOURS

#### Table 4.1: General table of curriculum hours undertaken by all students.

			Hours of training							
			Tł	neoretical ti	raining	Supervise	d practical trair	hing		
		Subject	Lectures (A)	Seminars (B)	Self-directed learning (C)	Laboratory and desk-based work (D)	Non- clinical animal work (E)	Clinical work (F)	Other (G)	Total
	1	Veterinary biostatistics and scientific method	30	0	0	30	0	0	0	
	1	Basic sciences	20	20	0	15	5	0	0	
	1	Structure and function I	50	20	0	17	33	0	0	
First	1	Introduction to Veterinary Medicine	20	10	0	22	8	0	0	
	2	Structure and function II	75	40	0	47	18	0	0	
	2	Ethnology and the basics of ethology and animals protection	25	20	0	6	9	0	0	
	2	Philosophical anthropology <sup>1</sup>	40	10	0	0	0	0	10	
Total First			260	120	0	137	73	0	10	600
	3	Structure and function III	28	27	0	5	0	0	0	
	3	Biological agents of veterinary interest	30	20	0	40	0	0	0	
	3	Applied veterinary foundations	66	30	0	69	15	0	0	
Second	4	Legal aspects of veterinary practice	10	10	0	10	0	0	0	
	4	Pharmacological and therapeutic foundations	30	25	0	35	0	0	0	
	4	Introduction to veterinary clinics	48	24	0	22	50	0	0	
	4	History of Veterinary Medicine <sup>1</sup>	20	10	0	0	0	0	0	
Total Second			232	146	0	181	65	0	0	624
	5	Small animal clinic I	90	45	15	45	0	105	0	
	5	Equine clinic I	45	15	15	30	0	45	0	
Third	6	Introduction to animal production	72	30	0	40	2	0	0	
	6	Small ruminant farm production and herd health	24	12	6	17	6	7	0	
	6	Pig farm production and herd health	48	24	12	30	12	18	0	
Total Third			279	126	48	162	20	175	0	810
	7	Poultry and rabbit farm production and herd health	60	30	12	38	29	11	0	
	7	Cattle farm production and herd health	36	12	12	24	12	12	0	
Fourth	8	Small animal clinic II	60	38	15	37.5	8.5	96.5	0	
louiti	8	Equine clinic II	30	7	7.5	8	0	23	0	
	8	Aqua- and apiculture production and health	18	6	9	13	14	0	0	
	7	The Church's social doctrine <sup>1</sup>	40	10	0	0	0	0	10	
Total Fourth			244	103	55.5	120.5	63.5	142.5	10	739
	9	Food technology, hygiene and control	72	12	12	60	12	0	0	
	9	Quality and safety management in the food industry	18	12	36	30	0	0	0	
Fifth	9	Farm animal clinics	0	0	5	0	0	68	0	
	10	Intramural rotations	0	0	10	16	7	143	0	
	10	Practicum <sup>2</sup>	0	0	0	0	0	320	0	
	10	End of degree project <sup>3</sup>	0	2	178	0	0	0	0	
Total Fifth			90	26	241	106	19	531	0	1013
TOTAL			1105	521	345	706.5	240.5	848.5	20	3786

<sup>1</sup>Non EU-listed subjects; <sup>2</sup>The hours for the *Practicum*, or main internship, have been classed as practical clinical sessions but we have not included these hours to calculate ratio 7. <sup>3</sup>We have classed the end-of-degree project as self-directed learning although some of the students undertake laboratory or clinical work for this purpose.

#### Table 4.2: Curriculum hours in EU-listed subjects undertaken by each student

	т	heoretical ti	raining	Supervis	ed practical train	ning	Other	Total
	Lectures (A)	Seminars (B)	Self-directed learning (C)	Laboratory and desk-based work (D)	Non- clinical animal work (E)	Clinical work (F)	(G)	
1.Basic Subjects								
a) Physics	5	5	0	5	0	0	0	15
b) Chemistry	5	5	0	5	0	0	0	15
c) Animal biology	6	5	0	0	5	0	0	16
d) Plant biology	5	5	0	5	0	0	0	15
e) Biomathematics	30	0	0	30	0	0	0	60
1- Total number of hours	51	20	0	45	5	0	0	121
2. Basic Sciences								
a) Anatomy (incl. histology and embryology)	68.5	32	0	25.5	51	0	0	177
b) Physiology	38	28	0	20	0	0	0	86
c) Biochemistry, cellular and molecular biology	35	15	0	15	0	0	0	65
d) Genetics (including molecular genetics)	24	12	0	24	0	0	0	60
e) Pharmacology and pharmacy	20	15	0	25	0	0	0	60
f) Toxicology (including environmental pollution)	10.75	11	1	10	0	0	0	32.75
g) Microbiology (including virology, bacteriology and mycology)	25.65	10	1	20	0	0	0	56.65
h) Immunology	13	13.4	0	10	0	0	0	36.4
<ul> <li>i) Epidemiology (including scientific and technical information and documentation methods)</li> </ul>	14.8	5.8	0	3.8	0	0	0	24.4
j) Professional ethics	5	5	0	5	0	0	0	15
2- Total number of hours	254.7	147.2	2	158.3	51	0	0	613.2
3. Clinical Sciences <sup>1</sup>								
a) Obstetrics	8	3	0.4	6	0	4	0	21.4
b) Pathology (including pathological anatomy)	73.65	30.15	2.6	63.6	28	30	0	228
c) Parasitology <sup>2</sup>	33.4	30.45	1	44.5	2	5	0	116.35
d) Clinical medicine and surgery (including anaesthetics)	179.55	73.6	39.3	80	27.5	329.5	0	729.45
e) Clinical lectures on various domestic animals, poultry and other animal species including <sup>3</sup>	0	0	0	0	0	0	0	0
f) Field veterinary medicine (ambulatory clinics)	0	0	15	3	0	73	0	91
g) Preventive Medicine	22.55	10.35	8	8.4	2.67	22	0	73.97
h) Diagnostic imagery (including radiology)	19	18	0	25.5	16	16	0	94.5
i) Reproduction and reproductive disorders	32	5.5	3	7.5	8	12	0	68
j) Public veterinary medicine and public health	4	1.4	0	1	0	5	0	11.4
k) Veterinary legislation and forensic medicine	7	6.4	1	6	2	2	0	24.4
I) Therapeutics	25.25	8.45	2	9.2	0	1	0	45.9
m) Propaedeutics (including laboratory diagnostic methods)	15.4	7.5	1.2	3	18	23	0	68.1
3- Total number of hours	419.8	194.8	73.5	257.7	104.2	522.5	0	572.5
4. Animal Production								
a) Animal production	54	33.5	4.3	17	22	0	0	130.8
b) Animal nutrition	26	11	3.4	35	5.17	0	0	80.57

c) Agronomy	7	0.5	1	2	1	0	0	11.5
d) Rural economics	18.5	5.5	2	19	0	0	0	45
e) Animal husbandry	31	18	11.3	20	21.17	0	0	101.47
f) Veterinary hygiene	1	3	2	0	2.5	0	0	8.5
g) Animal ethology and protection	21	14.5	3	5	5.5	0	0	49
4- Total number of hours 1	158.5	86	27	98	57.34	0	0	426.84
5. Food Hygiene/ Public Health								
a) Inspection, and control of animal foodstuffs or foodstuffs of animal origin and the 3 respective feedstuff production unit	32.75	11	4	21.5	3	0	0	72.25
b) Food hygiene and technology 4	46.25	9	39	54	0	0	0	148.25
c) Food science including legislation	12	3	0	18	0	0	0	33
<ul> <li>d) Practical sessions (including practical sessions in places where slaughtering and processing of foodstuffs takes place)</li> </ul>	0	0	0	0	10	0	0	10
5. Total number of hours	91	23	43	93.5	13	0	0	263.5
6. Professional Knowledge								
a) Practice management <sup>4</sup>	8	6	4	30	0	320	0	368
b) Veterinary certification and report writing	1	1	15	2	2	6	0	27
c) Career planning and opportunities	21	11	2	22	8	0	0	64
6. Total number of hours	30	18	21	54	10	326	0	459
TOTALS	1005	489	166.5	706.5	240.5	848.5	0	3456

1 The course contents regarding infectious diseases have been included in Pathology, Clinical medicine, Preventive medicine, Therapeutics and Public veterinary medicine and public health. 2The course contents belonging to parasitology and parasitic diseases have been included here. 3 Our curriculum contains a subject entitled "Poultry and rabbit farm production and herd health": the contents of this subject have been included in the rest of the categories. <sup>4</sup>The hours of the *Practicum* have been included here, but we have not included these hours to calculate ratio 7.

#### Table 4.3: Curriculum hours in EU-listed subjects offered and to be undertaken as electives

	Theoret	ical training	Supervise	d practical tra	ining		
	Seminars	Self-directed learning	Laboratory and desk- based work	Non- clinical animal work	Clinical work	Other	Hours to be undertaken by each student per subject group <sup>1</sup>
Veterinary biotechnology	А	В	С	D	E	F	
Clinical sciences	2		1				
Animal Production	10		5				
Food Hygiene/Public health	3		2				
Professional knowledge	5		2				
Biodiversity and environment	А	В	С	D	E	F	
Basic sciences	5						
Professional knowledge	10		15				
Hospitalization and ICU in small animal clinics	А	В	С	D	E	F	
Clinical Sciences	13.5		6		15		
Veterinary clinic management	А	В	С	D	E	F	
Professional knowledge	10	15	5				

<sup>1</sup>The CEU-UCH's Bachelor's Degree in Veterinary Medicine is mostly made up of core, i.e. compulsory, subjects, with only 6 credits out of the total of 300 for the degree allocated to elective subjects. Students may also obtain these 6 credits by demonstrating that they have undertaken appropriate extracurricular activities.

	Theoretical training			Supervised	Other	Total		
	Lectures A	Seminars B	Self-directed learning C	Laboratory and desk based work D	Non- clinical animal work E	Clinical work F	G	
End of degree project <sup>1</sup>		2	178					180
Philosophical anthropology	40	10					10	60
History of Veterinary Medicine	20	10						30
The Church's social doctrine	40	10					10	60

Table 4.4: Curriculum hours in subjects not listed in Table 4.2 to be undertaken by each student, including Diploma work (final graduation thesis, or final graduation work)

<sup>1</sup>We have classed the end of degree project as self-directed learning, although some of the students undertake laboratory or clinical work for this purpose.

#### 4.1.3 FURTHER INFORMATION ON THE CURRICULUM

Students must attend the sessions of those subjects which are not assessed by means of a final exam (Farm Animal Clinics, Intramural Rotations and the *Practicum*, or main internship). Any absences must be appropriately justified. For other subjects, attendance is monitored most especially with regard to the practical activities (workshops and internships).

# 4.1.3.1 SPECIFIC INFORMATION ON PRACTICAL CLINICAL TRAINING

Clinical training is compulsory and takes place over the course of six semesters (semesters 2, 5, 6, 7, 8 and 10). Beforehand, the students undergo appropriate preliminary training during semesters 1, 3 and 4. This preliminary training is provided as part of the subjects entitled Introduction to Veterinary Science (IVS), Applied Veterinary Foundations (AVF), and Introduction to Veterinary Clinics (IVC). As part of these subjects, the students receive training in knowledge related to the hospital environment, the taking of different kinds of clinical samples, basic hospital equipment (IVS, semester 1), necropsy techniques, general physiopathology, basic clinical biopathology, etc. (AVF, semester 3), inspection, examination, checking vital signs, observation of symptoms, the principles of diagnostic techniques using imagery, general surgery and general anaesthesia (IVC, semester 4). For this purpose, the lectures and seminars are supplemented by activities such as workshops (20-25 students per group) and practical activities (groups of 12-14 students in IVS, 8-10 in AVF and IVC). The groups are divided into sub-groups for some of these practical sessions (necropsies, physical examinations). All of these practical activities form part of the curriculum, meaning that the student receives an introductory session in semester 1 (four hours, IVS), four training sessions in pathology and necropsy techniques (15 hours) and six training sessions in applied physiopathology (25 hours) in semester 2 (AVF), three sessions of general anaesthesia (nine hours), three of general surgery (nine hours), four for diagnostic imaging (12 hours) and six for propaedeutics (18 hours).

The practical clinical activities take place by means of rotation between the subjects entitled Small Animal Clinic I (SAC I) and Equine Clinic I (EC I) in semester 5, Operational, Healthcare and Production Management (OHPM) of Sheep and Goat Farms and OHPM of Pig Farms in semester 6, OHPM of Cattle Farms and OHPM of Poultry and Rabbit Farms in semester 7, Small Animal Clinic II (SAC II), Equine Clinic II (EC II), and OHPM for Aquaculture and Apiculture in semester 8, Farm Animal Clinics (FAR) in semester 9 and Intramural Rotations (IR) in semester 10. All of these activities are compulsory and are complemented by compulsory attendance at the emergency services at night and at weekends. All students must undertake 1-2 emergency shifts every semester. The students must also undertake morning shifts for a complete week, as part of a rota programme, in semesters 5 and 8, undertaking a total of four such weeks per semester. They also undertake a series of practical training sessions as part of the curriculum, totalling another week's worth of training per semester. As part of the rotation system, the students spend time in all the different clinical services, with a special emphasis on the basic areas in semester 5 and on more specialized areas in semester 8. The groups consist of four to five students per clinical tutor, except in the emergency area, in which there are two to three students per clinical tutor. The SAC I rotations (semester 5) include a week attending to general consultations and surgery, a week on anaesthesia and diagnostic imaging, a week in the pathology, clinical parasitology and infectious disease service, along with practical sessions in obstetrics and abdominal and cutaneous surgery. In EC I, semester 5, the practical sessions are undertaken over one week, in two two-day shifts and a third shift of one day, being mainly concerned with the services of internal medicine, general surgery and reproduction.

In SAC II, semester 8, the students undertake rotations lasting one week in internal medicine, one week and two days in surgery (with a special emphasis on traumatology and orthopaedics, three days on anaesthesia, one week on specialist consultations and diagnostic imaging. Practical sessions which form part of the curriculum are also undertaken in neurology, ophthalmology, traumatology, hospitalization and ICU, clinical tests and healthcare and public health in small animals. In EC II, there is a rotation period similar to that of

semester 5 but with greater content in the areas of surgery and anaesthesia. Finally, students must undertake at least one night shift or weekend shift at the HCV-CEU emergency unit.

Throughout this period, the students are always supervised and accompanied by a clinical tutor from the Faculty-Hospital, with groups per tutor of 4-5 students. The activity is undertaken using real clinical cases, ensuring that the students actively participate in them. The objective is for the student to participate more and more as their training progresses, so that in semester 5 the clinical tutor is more active, with the student's responsibility being greater in semester 8. The ultimate aim is that, by the end of their studies, the students possess the general clinical skills that a veterinary surgeon must have, placing greater emphasis on general rather than specialist activities during semester 5, with greater prominence being given to the various specialisms during semester 8.

The Farm Animal Clinics subject (semester 9) is taught completely outside the Veterinary Faculty, with extramural teaching taking place in private veterinary farm animal practices under the supervision of one or more specialized veterinary surgeons or in farms. The University has official contracts in place, which enables insurance and liability cover to be provided to students during the internship periods. Each student spends a period of 2 full weeks in these farm animal practices or farms, spending a total of 100 to 120 hours, including weekends and an out of hours, on-call service. The students may choose the particular type of farm animal and the location of the internship within a wide range of possibilities offered by the University. Most of the available internships are located in the northern region of Spain, where the livestock population and the number of farm animal practices is highest, but there are also agreements with other farms and veterinary practices in the rest of Spain to ensure the needs of all the students are met. This subject has been in place since the last academic year (2014-15), and will continue. Once the extramural internship is finished, each student must produce a written report including the type and number of clinical cases performed or seen during her/his clinical placement.

In semester 10 the practical activities related to Intramural Rotations are undertaken. This consists of a six-week rotation period in which each student is directly responsible for real clinical cases, taking the corresponding decisions and acting upon them (where this is possible), while always under the supervision of a clinical tutor. The students are divided into groups of six and each is completely focused on a particular area for one week, after which the rotation will come into effect and they will move onto another area. They undertake a week of internal medicine, a week of surgery, a week of hospitalization and pathology, a week of general consultations, evening hospitalizations and emergencies, and a week of equine medicine and surgery. This period is then completed with a week's internship on a farm, with responsibilities both for clinical animal healthcare and the productive side of the farm. All of these activities are undertaken at either the University's own facilities or those affiliated to it; they are compulsory and are undertaken by all students. Students are assessed on the basis of: the evaluation of a series of professional objectives (Day One Skills), recorded by the teaching staff in an objectives booklet (50%); six short written assignments, reports or clinical case studies (one per week of the rotation) (30%); a viva focusing on one of these assignments, examined by two members of the academic staff (10%); and an assessment of the students' attitude during these practical activities (10%).

The clinical activities mostly take place during the mornings or early afternoons, beginning at 9 am and ending at 2pm, or whenever that day's clinical activity finishes (at least until 1.30 pm). For those activities taking place in the late afternoon and evening, working hours begin at 3 pm and end at 8 pm, with on-call shifts lasting 12 hours, from 8 pm to 8 am, in the case of night shifts, and 8 am to 8 pm, at weekends and on public holidays.

During their clinical rotation-period, the students take part in all of the clinical work under the supervision of teaching staff from the Faculty of Veterinary Medicine and HCV-CEU personnel. The students are responsible for handling the animals, communicating with their owners, evaluating each patient's clinical condition and applying their own theoretical knowledge to these practical situations. The students' activities and responsibilities vary across the different clinical services and the semester in question. For all the clinical services, the students are responsible for ensuring they have a complete medical history and for undertaking a physical examination of all patients. On this basis, the students create a list of problems, and make a differential diagnosis and diagnostic plan, which are then discussed *in situ* with the corresponding clinical tutor. The guidelines for the practical work are provided separately in each unit, and the general information is available on the intranet site specific to the degree programme.

#### 4.1.4 OBLIGATORY EXTRAMURAL WORK

Table 4.5: Obligatory extramural work that students mustundertake as part of their course

Nature of work	Minimu hours	m period % of total study time	Maxim hours	um period % of total study time	Semester in which work is carried out
Practical sessions in abattoirs	12	0.32%			9
Practicum	320	8%			10
Farm animal clinics	68 <sup>1</sup> -100 <sup>2</sup>	1.8-2.6%	120 <sup>2</sup>		9

<sup>1</sup> Hours undertaken in 2014-2015; 2 hours undertaken in 2015-2016

The **practical sessions in abattoirs** take place as part of the subject entitled Food Technology, Hygiene and Control. Section 4.1.5 describes how these are organized.

The students undertake the *Practicum*, or main internship, for two uninterrupted months (a minimum of 320 hours, 40 hours per week), and they can choose to perform this during the first period (February-March) or the second (April-May). Students state their preferences for the external organizations at which they wish to undertake the internship and they are then allocated on the basis of their marks and the availability of places at those organizations. If no agreement exists with the organization in question, a process is begun to put such an agreement in place. There are currently 695 such agreements in place in Spain (translating into 1466 internship places) and

![](_page_27_Picture_0.jpeg)

106 (106 places) with international organizations (see Table 5.1 and section 5.1.1.4). This whole process is explained to the students at a meeting which takes places before the internship application process is opened in October. At this meeting, the students are provided with information concerning the report that they will need to make.

The assessment of this supervised internship takes the following form: evaluation of the external tutor 40%, evaluation of the report 50% and 10% for attitude, with the latter two areas being the responsibility of the internal tutor.

Table 4.6 provides a summary of the locations at which the Bachelor's Degree student undertook their internships in 2014-15. As can be seen, most students worked in clinical settings.

Table 4.6. Percentages of students undertakinginternships in different specialisms in 2014-15.

Specialism	N° of students	Percentage %
Small animal clinics	27	56
Equine clinic	5	6.2
Wildlife	7	15
Cattle production	3	6.2
Farming sector	3	6.2
Healthcare centres	2	4.2
Research laboratories	3	6.2

Students participate in the **Farm Animal Clinics** subject in the 9<sup>th</sup> semester. During the first year that this subject was performed (2014-15), the aim was to ensure that the students worked with veterinary surgeons in Valencia, but the way in which the subject is organized was changed in 2015-16. Now, those students who wish to work in other areas of Spain where there is a greater amount of livestock farming, and therefore greater opportunities for learning in this field, may do so. In this way, we have been able to increase the number of available locations at which the students may perform the necessary hours of practical experience. The **Farm Animal Clinics** subject is assessed as follows: evaluation of the external tutor, 60%; evaluation of the report by the internal tutors, 40%.

#### 4.1.5 SPECIFIC INFORMATION ON PRACTICAL TRAINING IN FOOD HYGIENE/PUBLIC HEALTH

The practical training in food hygiene and public health takes place in the 9<sup>th</sup> semester. This training takes place in: 1) abattoirs, 2) pilot plants, 3) laboratories with which agreements are in place, 4) and our own facilities.

#### ABATTOIRS

Students undertake practical sessions at abattoirs by accompanying the official veterinary services: there is an agreement in place for this purpose with the Department of Health of the regional government, the Generalitat Valenciana. The students undertake 12 hours' worth of inspections at abattoirs which are distributed in the following manner:

**Pigs, sheep, goats, cows and horses**: the students choose from three abattoirs and they must undertake a total of 8 hours' worth of practical experience.

- MERCAVALENCIA ABATTOIR: in the city of Valencia. Distance: 15 km (public transport available). Pigs, sheep, goats and cows are slaughtered at this abattoir.
- ACENSER ABATTOIR: in Burjassot. Distance: 8.5 Km. Sheep, goats, cows and horses are slaughtered here.
- GIMENO BOLEA, S.L., ABATTOIR: in Benaguasil. Distance: 23 Km. Sheep, goats, cows and horses are slaughtered here.
- The groups for these practical sessions are of 2-3 students. These practical sessions are taught by the official veterinary surgeons of these abattoirs, who act as part-time lecturers.

**Poultry:** The students undertake a four-hour practical session at the poultry abattoir known as PAASA, in Albacete, which is located 169 km away. In this case the practical session involves 15 students, who are accompanied by a part-time lecturer.

These part-time lecturers send the register of attendance to the academic staff member responsible for this subject and, once the practical sessions have been completed, the students have to write a report which is sent to the co-ordinator.

#### PILOT PLANTS

The "LA CAMPANA" pilot plant prepares and produces meat products. The company is located in the town of Lliria, 15 km away from the Faculty of Veterinary Medicine. The students are transferred to and from this location by coach. The practical session is taught by academic staff from the Faculty of Veterinary Medicine. This activity is undertaken with groups of 10-12 students. For this session, the HACCP (Hazard Analysis and Critical Control Points) system is employed, discussed and analysed, and the review and analysis of the labelling of the commercial meat products also takes place, along with discussion of possible fraud and unauthorized uses of additives.

The "CASEUS" pilot plant produces dairy products. It is owned by the *Instituto de Ciencia y Tecnología Animal*, on the campus of the *Universitat Politècnica de València*, and is located 12 km away from the Faculty of Veterinary Medicine. The students can travel from the Faculty to the plant via the underground, bus or tram. These sessions are taught by staff from the Faculty of Veterinary Medicine with groups of 10-12 students. The HACCP system is discussed and analysed and a cleaning and disinfection plan appropriate for the dairy industry is also drawn up.

### LABORATORIES WITH WHICH AGREEMENTS ARE IN PLACE

**The LICOVAL Inter-professional Laboratory.** Located 12 km from the Faculty of Veterinary Medicine, the students can travel from the Faculty to the laboratory via the underground, bus or tram. These sessions are taught by academic staff from the Faculty of Veterinary Medicine with groups of 10-12 students. At these sessions, the samples taken from a tank after milking (goat's milk in this case) are tested for the presence of waste products and possible fraud due to the addition of water, amongst other problems.

#### FACULTY FACILITIES

The other practical sessions take place at the Faculty's facilities and concern technological, hygiene, inspection and monitoring issues with regard to meat, milk, fish, vegetables, eggs and honey, as well as issues related to microbiology in food.

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#### 4.1.6 RATIOS

#### 4.1.6.1 GENERAL INDICATORS TYPES OF TRAINING

Parameter addressed	Indicator (Ratio)		lue	
50	Supervised practical training		1796	
R6	Theoretical training	= -	1971	= 0.91
R7	Laboratory and desk-based work + non-clinical animal work		947	= 1.79
	Clinical work	= -	528	
P8	Teaching load	_	3786	- 10 97
no	Self-directed learning		345	10.97

## 4.1.6.2 SPECIAL INDICATORS OF TRAINING IN FOOD HYGIENE/PUBLIC HEALTH

Parameter addressed	Indicator (Ratio)		Va	lue
	Total nº. Vet. Curriculum Hours		3786	
R9	Total nº. Food Hygiene/Public Health Curriculum Hours	=	264	= 14.34
B10	Hours of obligatory extramural work in veterinary inspection		12	0 045
	Total nº. Food Hygiene/Public Health Curriculum-Hours		264	

#### 4.2 COMMENTS

Within the current curriculum, 21% of the content concerns basic scientific subjects, 45% clinical subjects, 12% animal production, 8% food hygiene and public health and 13% professional knowledge and skills (Table 4.2). This distribution is in accordance with current legislation and it provides our students with all the resources they need to develop their careers in any of the areas of Veterinary Medicine.

In order to ensure that the curriculum trains the students in all of the skills that employers require, an Advisory Commission for the Bachelor's Degree has been set up. This Commission contains representatives from the main public and private areas of the veterinary profession, with the aim being for the Commission to provide guidance with regard to the drafting and updating of the curriculum.

As was mentioned earlier, the chief characteristic of this new curriculum, which was first implemented in 2010-11, is the integration of concepts from different study materials into a single subject, especially in the later years of study. The objective is for the students to understand these concepts better and to integrate them more fully into their professional activities, by bringing together, in one subject, knowledge of a clinical, healthcare, management and production-related nature about a single species. Furthermore, the structure of this new curriculum has enabled the practical content of the

first two years to be increased and the number of student in each theoretical class to be reduced, as these now include selfdirected learning, in the form of assignments and the resolution of clinical cases, with the support of the teaching staff.

Self-directed learning is introduced from the third year of study onwards, at which the point the students are judged to have sufficient knowledge to work autonomously with less support from the teaching staff.

#### 4.3 SUGGESTIONS

Much effort has been made to ensure that students receive appropriate training in food inspection, by improving intramural activities. Furthermore, in order to improve this area of training, an agreement was signed with Valencia City Council during this academic year (2015-16), enabling the students to undertake practical activities with this organization's veterinary services. The students will increase their practical training by another eight hours, thus improving ratio R10, thus improving the ratio above the minimum recommended level (0.076). Further efforts will be made to make more agreements with other institutions undertaking similar tasks, in order to continue to improve the training our students receive in the area of food safety.

### CHAPTER 5. TEACHING: QUALITY AND EVALUATION

#### **5.1 FACTUAL INFORMATION**

#### 5.1.1 THE TEACHING PROGRAMME

#### 5.1.1.1 TEACHING COORDINATION

Teaching is coordinated at four different levels:

1) The Bachelor's Degree Commission coordinated and drew up the curriculum, establishing the subjects to be taught, the number of ECTS credits of each, how practical and theoretical teaching was to be distributed, and the assessment format. Following this curriculum, the Vice-Dean draws up the scheduling of theoretical and practical teaching for each subject on an annual basis.

2) Each year-group has its own Coordinator, named by the Dean's office, and this person is responsible for drawing up the assessment calendar for the continuous assessment of subjects. This coordinator is also responsible for ensuring that communication between the teaching staff and the students is as fluid as possible, so that any problems that arise can be swiftly resolved.

3) A coordinator is named for each subject and this person's main responsibilities concern:

- The improvement of coordination between different subjects in the same or similar areas in order to ensure that the corresponding teaching is pedagogically logical;
- For subjects in semesters 1, 2 and 3, ensuring the coordination of teaching activities across the three streams (English, French and Spanish);
- Coordinating the teaching responsible for the different areas of each subject, including assigning the number of classroom hours for each area, coordinating the exam dates for continuous assessment, etc.;
- Reviewing and updating on an annual basis the teaching guide for the subject (see section 4). At the end of the academic year, changes previously made to the guide are evaluated and new contributions to the teaching guide are proposed (improvement to the organization of the classes and exams, the updating of content and of the bibliography, etc.). Close collaboration between the subject coordinator and all of the subject teaching staff is necessary for this purpose. The modifications deriving from this process will appear in the new teaching guide. Minuted meetings between the teaching staff will be necessary for this purpose, before the new teaching guide can be approved by the Vice-Dean.

The efforts made by the subject coordinators enables continuous improvement to teaching to form part of the **Teaching Improvement Plan (see section 4),** a plan which ensures there is coordination both within each subject and between subjects. Those teaching innovations which are deemed to be beneficial are incorporated into the **Teaching Improvement Plan,** and are then reviewed by the Vice-Dean and Vice-Rector of Academic Affairs.

4) For certain subjects, there are also Area Coordinators, whose functions are:

- To coordinate the teaching staff in each of the subject (regarding the distribution of theoretical and practical teaching).
- To propose the dates for continuous assessment in accordance with the area teaching schedule.

The coordinators must have good knowledge of the demands made by the subject/subject area, enabling them to take into account their various features. Furthermore, as they also undertake teaching, they have direct contact with the students, facilitating the exchange of ideas and suggestions with regard to the organization of the teaching.

The fact that coordination takes place at different levels is an important strength, as the different subjects of the degree may be very different with regard to how they proceed and how they are organized. The efforts made in coordination enable teaching to be improved, to standardize requirements across the yeargroup and knowledge area, and to improve collaboration within subject areas, thereby making the curriculum yet more coherent.

### 5.1.1.2 PEDAGOGICAL STRATEGIES AT CEU-UCH

The Curriculum has a modular structure: different units form a set, enabling the students to acquire the theoretical knowledge and the necessary practical skills they will need in the professional world. The current Curriculum is based on on-site learning in groups of different sizes (as appropriate for lectures, seminars, workshops and practical sessions), along with selfdirected learning. Thus, a variety of teaching approaches are used, depending on the skills that the students must acquire and conditions amongst which learning takes place (group size, learning location, etc.).

Different classroom-based activities take place, whose main objectives are skill-acquisition, problem-resolution, encouraging teamwork, and increasing student motivation. **Lectures** enable the transmission of theoretical content. Work in small groups enables activities to be undertaken which encourage active student participation in their learning, such as problemsolving, case studies, exercises (model exercises, directed/ guided exercises, etc.), exhibitions, debates (argumentation structure), competitions (the class is divided into groups to answer questions based on the knowledge and skills taught during the classes), and videos (a short presentation which is recorded by the students on a theme set by the lecturer).

Some activities take place outside the classroom, in the presence of a member of the teaching staff, and this enables "fieldwork" to be undertaken with regard to basic sciences, animal production, healthcare or clinical treatment. In the

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![](_page_31_Picture_1.jpeg)

![](_page_31_Picture_2.jpeg)

University **laboratories**, activities concerning handling and experimentation are undertaken, enabling the student to generate, observe and interpret results, while also developing critical skills with regard to experimental data. Visits to farms with different species in various regions of Spain are also undertaken, enabling students to observe, compare and analyse these with regard to the issues of management, production and healthcare (see section 4).

The practical elements of the curriculum are performed at the **HCV-CEU** and at the **Teaching and Research Farm** (see description in sections 6 and 7). These enable the students to acquire the professional skills and competencies through the consideration of real cases under the supervision of a member of the teaching staff (see section 4). This approach also includes various internship programmes, carried out at external facilities with which the University has agreements in place (voluntary and compulsory internships) (see section 4).

Students can choose to further their knowledge in particular areas by student interns or collaborating interns at their department, Faculty or at other University services, or by participating in research projects. To encourage the participation of students in research, since 2004 an international conference for students, entitled the **Congreso Internacional de Ciencias Experimentales y de la Salud** (International Congress for Experimental and Health Sciences), and this enables students to become more familiar with how research publications and presentations should be structured and written, and with how results should be publicly presented.<sup>12</sup>

Students must also undertake activities for which academic staff are not present, with the objective being to obtain and analyse information. Students must read certain materials, undertake projects, draw concept maps, or perform other activities on their own or in groups. Complementary to the core teaching, various special lectures are organized at the Faculty level, or at a more general University level,<sup>13</sup> which the students can attend. For example, for the **International Veterinary Week**, teachers and researchers from different countries are invited to showcase the latest advances in veterinary clinical pathology, animal production and food hygiene, and technology.

Along with the previously described teaching resources, the University has made available to students and the academic staff the use of the online platform entitled "*Blackboard learn* 9.1", which offers the following features:

Ease of communication between teaching staff and students (email service, discussion groups/forums moderated by staff members), real time videoconferencing, messenger service, etc.).

- Document exchange (text, images, videos, etc.) between the teaching staff and students (material used in class or recommended by staff, assignments carried out by students, etc.).
- Easy management for staff of assessment activities (marking on the platform, publication of marked work and

12 https://www.uchceu.es/actividades/2016/congresos/13-congreso-internacional-de-estudiantes

13 https://www.uchceu.es/actividades

the marks themselves, automatic detection of plagiarism, deadline monitoring, etc.).

 Student monitoring (dates of the last time the system was accessed, documents downloaded, self-assessment exercises carried out, etc.).

With regard to the improvement of teaching and innovation, the CEU-UCH University, of which the Faculty of Veterinary Medicine forms part, is committed to the use of new teaching approaches which are suited to the European Credit System. One example of this is that, since 2005-06, there are annual Prizes for Innovation and Improvement in Teaching and Services.14 These Prizes are awarded every year to the best innovation in each category (Teaching or Services), and include a monetary award and a diploma. Moreover, since 2011-12, the Office of the Vice-Rector for Academic Affairs and Academic Staff (VOAP, Vicerrectorado de Ordenación Académica y Profesorado) also organizes the Projects for Innovation and Improvement of Teaching Quality.<sup>15</sup> The aim in this case is to encourage the teaching staff to be innovative in their teaching and to involve students in this process, and they enable innovative teaching projects to be funded. Staff working within each subject can introduce teaching innovations which are appropriate to the curriculum and which are recorded in the Teaching Improvement Plan.

Other teaching innovation resources include:

- Case-based and case-oriented teaching: the implementation of the new curriculum has reduced the average group size, enabling the teaching staff to employ case-based and case-orientated teaching.
- Online viewing of scanned histological samples: Collections of scanned histological samples are available for viewing by the students. This material can be used to complement the practical sessions the students undertake with microscopes in various areas of the curriculum.
- Feed Ration Balancer Program: the CEU-UCH University and Agrifood Alternative Technologies SL have signed an agreement so that the students can use this commercial program balancing feed rations for cattle. The programme enables rations to be established for milking, dry and calving periods, with a final assessment.
- Streaming technology in the operating theatre: This is a system which enables live video to be viewed of operations carried out at the HCV, and also for a video library to be created from such videos (currently in development).
- Interactive Turning Point program and/or similar applications (Kahoot.it): these allow students to generate and transmit information simply and quickly, with the aim being to increase student participation and stimulate their attention during class.
- Use of anatomy videos for class preparation and content revision: the Anatomy teaching staff,

in collaboration with the staff of the Audiovisual Communication degree and in some cases veterinary students, have made and continue to make videos depicting the main anatomical components, by means of dissections, the display of individual bones or viscera from an abattoir. At the current time (this project is ongoing) 11 videos have been made describing bones, with 8 concerning dissections of different anatomical areas and 5 different viscera. Some of these videos have been posted on YouTube and others are made available to students by means of the Blackboard platform. The aim is for students to be able to access these when they begin the subject, to better prepare them for the practical sessions and exams, and in general enhance the learning process. Student response to these videos is very positive.

There are also other measures in place which aid the students in their learning and enable their progress to be monitored.

The university is committed to a system of individual support of students, based on a tutoring system, in which the central figure is, of course, the tutor. This system has now been extended to all year groups and stages of education at the university, with there being four different types. Each first year student has a personal tutor, who they should contact for all issues of an academic nature. The internship tutor supervises the student's first encounter with the professional world. The international programmes tutor assists the students who wish to complete their training at another European university. Finally, the group coordination tutor acts as the intermediary between the students and the academic staff for issues which affect the group as a whole. The students are also supported by the Servicio de Orientación Universitaria y Atención a la Discapacidad (SOUAD, University Guidance and Disability Service) which can help them with regard to study techniques.

All of the academic staff have scheduled times during the week at which they are available for one-to-one tutoring and/or tutoring in small groups (a lecturer for 2-6 students). Also, so-called "Blue Days" held before scheduled exams, on which there are no classes and which are reserved for tutoring sessions with the academic staff.

Also noteworthy is the fact that the student representatives of each year group meet once a month with the general representative for the degree, in order to review any problem issues for students, suggestions or possible improvements, which can then be passed onto the general student representative on the Faculty Board.

Once the academic year is finished and the marks have been published, the Assessment Boards for each year-group are then constituted, with the objective being to analyse the results and establish any necessary measures or agreements.

In conclusion, the Faculty uses different pedagogical resources to facilitate the students' acquisition of the necessary skills, to maintain their motivation throughout their degree and to periodically monitor their progress.

<sup>14</sup> https://www.uchceu.es/conocenos/udec

<sup>15</sup> https://www.uchceu.es/docs/conocenos/ceu-innova/convocatoria-proyectos-innovacion-2015-16-2conv.pdf

#### 5.1.1.3 USE OF TEXTBOOKS AND COURSE NOTES

During the degree, the students have access to different sources of information, such as course notes provided by the academic staff, and books and electronic material in the library.

The teaching guides to each subject contain bibliographical lists of two types, basic and recommended, with these being updated every year when the guides are reviewed:

- Basic bibliography: the books concerned are available in the University library and students may borrow them using their university ID.
- Recommended bibliography: the books concerned are more specific and students may read them in order to explore a particular issue in greater depth.
- The academic staff also use the online platform entitled Blackboard learn 9.1 in order to provide students with particular materials (syllabuses, documents, images, videos, etc.). Staff may also make photocopies of documents at the University's photocopying service and use these in classes with students.

### 5.1.1.4 CONTRACTUAL ARRANGEMENTS

The Faculty of Veterinary Medicine has 695 agreements in place within Spain and 88 international agreements. Table 5.1 summarises these agreements by specialism.

#### Table 5.1. Summary of agreements by specialism.

	National	International
Pet clinics	426	43
Equine clinics	53	19
Production	103	2
Wild and exotic fauna	65	3
Hygiene and food technology	33	0
Research and laboratories	15	21
TOTAL AGREEMENTS	695	88

These agreements are overseen by three members of the Faculty's academic staff (the External Internship Coordinator, the Coordinator of International Relations and Mobility, and the Bilingual Group Coordinator) in collaboration with Faculty administrative staff and the University's Information, Internship and Employment Service (*Servicio de Información, Prácticas y Empleo*).

There are two modes of student access to these agreements:

- Compulsory mode, as they undertake their *Practicum*, or main internship, during the final year.
- Voluntary mode, during earlier years outside of term time.

Sections 4.1.4, 4.1.5, 7.1.3 and 7.1.8.2 describe how the internships and practical sessions, corresponding to different subjects and undertaken at the agreed locations, are organized.

#### 5.1.1.5 GENERAL LEARNING OBJECTIVES UNDERLYING THE VETERINARY CURRICULUM AND HOW THESE ARE ENSURED

The general objectives of the Bachelor's Degree in Veterinary Medicine at the CEU-UCH are set out in the curriculum approved by ANECA in 2010. They are:

- To train professionals who show commitment and a desire to cooperate with other healthcare professionals, and to ensure they have their own professional identity and a well-rounded personality with ethical principles grounded in Christian humanism.
- 2) To educate the students in such a way as to enable them to acquire an interdisciplinary vision of reality and its nature and to open themselves up to the transcendental conception of the human being and the world.
- To train qualified veterinary surgeons by means of professional knowledge and skills, ensuring the health of the animals and human beings by:
  - a. Overseeing and inspecting hygiene and technology of production and manufacture of food for human consumption, from the primary stage of production up to the product reaching the consumer;
  - b. Preventing, diagnosing, treating individually or collectively, and combating animal diseases, whether these affect individuals or whole groups, with a special emphasis on zoonoses;
  - c. Overseeing breeding, handling, welfare, reproduction, protection and feeding of animals, along with enhancing production;
  - d. Obtaining products of animal origin in optimal and economically viable conditions, and assessing the environmental impact of this;
  - e. Knowledge of legal, regulatory and administrative requirements, and the application of these, in all areas of the veterinary profession and public health, while understanding the ethical implications of healthcare in the context of a world in transformation;
  - f. Undertaking professional practice while showing respect for other healthcare professionals, acquiring skills related to team-working, the efficient use of resources and quality assurance;
  - g. Identifying emerging risks in all areas of the veterinary profession.
- 4) To lay the foundations which enable students to consider specialization, postgraduate training, scientific research, technological development and teaching in the future.
- 5) To stimulate the student's ability to design experiments using the scientific method and to interpret scientific publications in the field of health sciences.

To ensure the achievement of these objectives, the subject teaching guides contain the objectives and competences to be acquired in the subject in question, so that the student that passes all of the subjects in the degree will have complied with all of the degree objectives. As well as the competences described earlier, the students at the Faculty must acquire language skills during their degree (students in the Spanish group must acquire a level of English equivalent to B1 and students in the bilingual groups must acquire a level of Spanish equivalent to B2). These language skills are important for the assimilation of veterinary knowledge and they are held to represent an advantage for those who have them over those who do not when moving into the professional world.

### 5.1.1.6 ASSESSMENT OF DAY ONE COMPETENCES

Day One Competences consist of the knowledge, skills and attitudes that students must have acquired in order to work as a veterinary surgeon. The Curriculum describes the contribution of each subject to the acquisition of Day 1 Competences, grouping these competences in accordance with the modules that appear in Order ECI/333 which regulates the structure of degrees in Veterinary Medicine in Spain.

These competences concern the acquisition of general professional skills (communication, drafting documents, team-working, management, legal considerations, etc.), knowledge and understanding of the veterinary world (Veterinary Medicines, research methods, legislation, health and pathology, prevention and public health problems) and practical skills (handling animals, clinical examination, taking samples, diagnosis, anaesthesia, preparation for surgery, treatment, etc.). Although Day One Competences must be acquired over the whole course of the degree, it is in the last semester of the degree that the level of integration of these competences is verified, by means of the rigorous assessment of students during the Intramural Rotations.

The Intramural Rotations (10<sup>th</sup> semester) are intended for those students who have completed more than 240 ECTS. They are organized over a period of 7 weeks, during which the students will undertake activities within various services at the Faculty, which will enable the students to gain experience in the different professional situations which they will face during their career after completing their studies.

- Week I. Teaching and Research Farm. As part of this rotation, the competences related to healthcare and production of the main livestock species.
- Week II. Food safety. For this second group of activities, competences related to specific aspects of the inspection and processing of foods of animal origin are assessed.
- Week III. Internal medicine consultations at the HCV-CEU. Competences related to general medical consultations at the HCV-CEU and its associated services are assessed.
- Week IV. General surgery consultations at the surgery service of the HCV-CEU and its associated services. The necessary aptitudes for consultations and the postoperative monitoring of patients are assessed.
- Week V. Operating theatres. Assessment of the performance of minor surgery, general anaesthesia, surgical preparation and immediate postoperative care.
- Week VI. Support, diagnosis and hospitalization services at the HCV-CEU. Assessment of activities at

the Pathological Anatomy, Hospitalization and Clinical Services during the late afternoons and evenings.

- Week VII. This week is reserved for the preparation of written and oral work (the viva before an examining board) for later assessment.
- Students thus undertake full-time work experience in the main areas of the veterinary profession, drawing on the training they have acquired from the various degree subjects. For this purpose, activities are scheduled for which the students will need to make use of general, multipurpose skills (applying knowledge, resolving problems, gathering and interpreting data, conveying information, and working autonomously and in a team) and also ones specific to their veterinary training.

Finally, students have to demonstrate that they have acquired Day One Skills, (the final objective of this subject), by means of a competence assessment sheet. The Day One Skills are certified by the teaching staff in a booklet for objectives (50%). The students also have to undertake six short assignments, reports or clinical case studies (one for each week of the rotation) (30%) and undergo a viva for one of these assignments before an examination panel consisting of two members of the teaching staff (10%). The students' attitude during the rotations is also assessed (10%).

#### 5.1.2 THE TEACHING ENVIRONMENT

### 5.1.2.1 STAFF DEVELOPMENT FACILITIES IN RELATION TO TEACHING SKILLS

The University organizes various courses over the whole academic year for the purpose of improving the quality of the teaching provided by its staff.<sup>16</sup> The academic staff may attend any of the courses they deem suitable with the approval of the Head of Department.

These courses can be broadly divided into 3 categories:

- Pedagogical training.
- Use of new technologies.
- Language courses (French and English) which are tailored to meet the needs arising from the internationalization of the Faculty, with a special emphasis on the staff who teach the bilingual groups being able to maintain a C1 level of English or French.

In order to ensure that the courses address the needs of the teaching staff, the Office of the Vice-Rector for Academic Affairs and Academic Staff (*Vicerrectorado de Ordenación Académica y Profesorado, VOAP*) gathers information on the training needs by means of forms which the teaching staff fill in and send to the Head of Department. A report will then be drawn up containing all the necessary information and this is sent to the Training and Development Section (Área de Formación y Desarrollo), so that the training requests can be examined and solutions can be drawn up to address these needs.

<sup>&</sup>lt;sup>16</sup> https://www.uchceu.es/universidad/ceu-innova/formacion

The teaching staff can also participate in the Erasmus scheme aimed at university lecturers, thus stimulating interaction with other teaching units and enriching their abilities, skills and teaching methods, with the ultimate beneficiaries of this being their students.

#### 5.1.2.2 AWARD FOR TEACHING EXCELLENCE.

In 2007-08, the CEU-UCH implemented a teaching assessment programme entitled **DOCENTIA**,<sup>17</sup> in accordance with the criteria established by ANECA. This enables the teaching, academic, research, institutional and personal tutoring activities of each member of the academic staff. Once a year, the teaching staff undertake a self-assessment which is then reviewed by the Heads of Department and the Dean, which is then sent onto the University's Assessment Commission. This Commission studies this information and then issues an overall evaluation which may be positive or negative. Those staff members who receive a positive assessment receive a monetary award, the size of which varies according to category, type of contract and length of time working for the university.

Every year, the CEU San Pablo University Foundation also awards the **Premio Ángel Herrera a la Mejor Labor Docente** (Ángel Herrera Prize for Outstanding Teaching) for each Faculty, with a monetary award being made to the designated staff member based on the results of the student survey.<sup>18</sup>

#### 5.1.2.2 OTHER MEASURES TAKEN TO IMPROVE THE QUALITY OF TEACHING AND LEARNING OPPORTUNITIES

Another way in which the University encourages the continuous improvement of the teaching staff is by promotion, with five categories of lecturer being distinguished based on the merits and experience of the staff member concerned. Promotion to a higher category is decided by means of a competitive process or examination depending on the category involved, with great importance being placed on the results obtained from the teaching quality surveys of students.

Achieving a positive assessment in the DOCENTIA is only possible if, during the assessment period, the lecturer concerned has attended at least one training course recognized by the CEU-UCH or has participated in a teaching innovation project. In this way, the academic staff are encouraged to undertaking training courses and to keep their skills up to date.

The results achieved by the teaching staff in the student surveys are also taken into account for DOCENTIA assessment and staff promotion. In order to be promoted, lecturers must have obtained in at least three of the previous five years prior to their request for promotion, an average rating for their teaching of above 70% of the maximum rating achieved by staff within their department.

#### 5.1.3 THE EXAMINATION SYSTEM

### 5.1.3.1 EXAMINATION POLICY, EXAMINATION PERIODS AND RESITS

In accordance with the guidelines in the report concerning the Faculty's Curriculum, the lecturers describe the assessment system employed in the teaching guide for their subjects. For all subjects, **continuous assessment testing** takes place over the course of the semester: these may take the form of examinations, assignments, presenting case studies, etc. As has been described previously, the assessment calendar for the semester is drawn up by the Course Coordinator. For those examinations carried out during the semester, the lecturer concerned must publish the results within 15 calendar days.

The maximum number of **official sittings of an exam** is 6 (2 per year). For subjects in the first semester, examinations take place in January and those of the second semester in June, with resits for both taking place in July. The examination period lasts approximately 15 days for both the ordinary exams and the resits. The dates of the examinations are proposed by the Vice-Dean responsible for the degree in question, in collaboration with the General Student Representative for the Faculty. No classes take place during the examination period. Students receive the results of all of their subjects 7-9 days after official examination period ends. After the publication of the marks the students have a few days to review their results and lodge a complaint if they disagree with them, as is detailed in the student regulations.<sup>19</sup>

Those students who have taken the maximum number of exam sittings can request **an extraordinary resit**<sup>20</sup> by sending a written request to this effect to the Rector, submitting this via the Faculty Secretary's Office.

During each academic year, **a resit**<sup>21</sup> is offered during the first semester, which is open only to those students who have a 10% or less remaining of the total number of credits in the Curriculum to fulfil (excluding those credits corresponding to the End of Degree Project), as long as the student has registered for the credits corresponding to the subject in question at least once before.

# 5.1.3.2 FORMS OF EXAMINATION AND GRADING OF EXAMINATIONS

Over the course of their degree, Veterinary Medicine students at the CEU-UCH will be asked to undertake multiple choice tests, to mark statements as true or false, to write short answers or write essays in response to questions, to resolve problems and clinical cases, and to undertake assignments and to give presentations. The teaching guides detail how the emphasis placed on assignments and presentations increases as the students pass on to the more advanced years of their degree.

<sup>19</sup> https://www.uchceu.es/universidad/documentos/normativa/reglamento\_ alumnos.pdf

<sup>20</sup> https://www.uchceu.es/universidad/documentos/normativa/procedimiento\_convocatoria\_gracia.pdf

<sup>17</sup> https://www.uchceu.es/universidad/calidad/programa-docentia.

<sup>18</sup> http://www.ceu.es/responsabilidad-social/premios-angel-herrera.php

<sup>21</sup> https://www.uchceu.es/universidad/documentos/normativa\_ permanencia\_grado.pdf
Depending on their results, the students are classified as *Suspenso* (0-4.9, Fail), *Aprobado* (5-6.9, Pass), *Notable* (7-8.9, Good), *Sobresaliente* (9-10, Excellent). Out of every 20 students, one *Matrícula de honor* (a Distinction, with students receiving a discount on their registration fees the following academic year) can be awarded: for this the student must have a mark of 10. Those students who do not present work for assessment are marked as *No Presentado* (Absent).

# 5.1.3.3 INTERNAL REGULATIONS AND THOSE CONCERNING THE END-OF-DEGREE PROJECT

The **Normativas de Permanencia y Condiciones de Matrícula**<sup>22</sup> (Internal Regulations and Registration Conditions) for Bachelor's Degrees at the University were approved by the Governing Council on 11<sup>th</sup> March 2014. The students are informed of these before registration. Once the student has registered at the University, various academic circumstances may lead to their being asked to leave:

1. In their first year of registration, students must achieve at least 50% of the credits they are registered for. Students who are unable to do so will not be allowed to continue with their studies. If a student has achieved between 30% to 49% of the credits they were registered for during the first year, they may make a written request to the Dean for re-admission. The academic staff responsible may accept or reject this request. If the request is accepted, the following registration and internal conditions are set:

- For the following academic year, these students may only register for those subjects they registered for previously and did not pass, whether due to failing the assessment or due to absence.
- The student must pass the total number of credits registered for that same academic year. If the student does not achieve 100% of the credits they registered for during the two exam sittings of that academic year, then they may not continue their studies for that degree at the CEU-UCH.

In exceptional circumstances, and if the student makes a request to this effect, the Vice-Rector for Students and University Life may, on one occasion only and with sufficient justification, allow students to continue their degree studies if they have been unable to fulfil either of the above conditions.

2. As has already been described, registration for each study area or subject gives students the right to two exam sittings, an ordinary sitting and a resit. In general, students can take a particular exam a maximum of six times after registration. Students who have sat the exam the maximum number of times for one or more study areas may write to the Rector to request an extraordinary resit for each study area. Students who are unable to pass exams at these sittings must discontinue their studies for the Bachelor's Degree in Veterinary Medicine.

In order to register for the **End-of-Degree Project** (*Trabajo de Fin de Carrera*, **TFG**), the student must have demonstrated an appropriate level of English (B1). In order to ensure that the student is able to attain this level, the Languages Service provides courses to this end, free of charge, to all students. Furthermore, students may only register for the TFG when registration would complete the number of ECTS credits required to finish their degree studies.<sup>23</sup>

### 5.1.4 EVALUATION OF TEACHING AND LEARNING

One of the mechanisms with which teaching quality is monitored concerns the surveys in which students provide an anonymous online evaluation:

- Student satisfaction with teaching (each semester).
- Student satisfaction with the educational programme (every two years). This was undertaken for the first time in 2013-14.

Using this approach, the degree of student satisfaction with their lecturers and teaching can be verified. The results are published on the degree programme's website.<sup>24</sup>

Table 5.2 shows that average satisfaction of students with the teaching staff of the Faculty of Veterinary Medicine is high (3.3 points out of 4). Average participation is around 30%, but the degree of participation decreases as the years of the degree go by (46%, 21%, 22%, 9% and 2% for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year students respectively).

### Table 5.2. Responses given to the statement: "in general, I am satisfied with this lecturer's teaching".

Academic year	Participation	Average out of 4
14-15	30%	3.3
13-14	29%	3.3
12-13	26%	3.4

With regard to student satisfaction with the educational programme, the same trend can be observed, with a greater level of participation in the 1<sup>st</sup> year (61%) than in the other years (5.6%, 5.6%, 16.7% and 11.11% for students from the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> years respectively). In this case, average participation was low, with just 3%. It can be seen that for all the items evaluated the average score awarded was around 3 out of 4. These results are used by the *Unidad de Desarrollo Estratégico y Calidad* (UDEC, the Strategic Development and Quality Unit) and are analysed by the Dean's Office as part of the Faculty of Veterinary Medicine's Quality Assurance Commission (QAC, *Comisión de Garantía de Calidad*), so that, if necessary, corrective measures can be drawn up and recorded in the QAC's annual report.

For the subject corresponding to the *Practicum*, or main internship, the students fill in a **questionnaire** evaluating the **host organization**. These questionnaires are paper-based. They were first undertaken with the first Bachelor's Degree year-group studying the *grado* (the new post-Bologna process degree, as opposed to those studying the old *licenciatura* programme) of 2014-15 and participation was poor (7.41%),

<sup>22</sup> https://www.uchceu.es/universidad/documentos/normativa/normativa\_ permanencia\_grado.pdf

<sup>23</sup> https://www.uchceu.es/estudios/titulaciones/documentos/guias\_docentes/2015/1465006F.pdf

<sup>24</sup> https://www.uchceu.es/estudios/grado/veterinaria/encuestas.

so that it was decided to merge the questionnaire with the report the students had to undertake. Thus all those students who complete the report for the Practicum also complete the assessment sheet for their host organization. If students detail verifiable problems with the host organization, no further students will be sent there to undertake internships.

The coordinators of some subjects may also send out their own internal questionnaires to evaluate student satisfaction.

### 5.1.5 STUDENT WELFARE

### 5.1.5.1 MEASURES TAKEN TO PROTECT STUDENTS FROM ZOONOSES AND PHYSICAL HAZARDS

The Office of the Vice-Rector for Students and University Life organizes annual **Welcome Events** (*Jornadas de Acogida*) for new students, in order to facilitate their integration into the University. These take place during the first few weeks of the academic year and during ordinary working hours for first year students. At these events, students are informed of the regulations of the HCV-CEU and the Teaching and Research Farm. The students can also access a copy of these via the University intranet.

In order to ensure appropriate biosafety procedures are maintained at all university facilities, the Faculty has established a Biosafety Commission to supervise the specific plans in this regard.

The biosafety measures in the laboratories are explained in a three-hour practical session which forms part of the curriculum, specifically part of the subject entitled Introduction to Veterinary Science (semester 1). Afterwards, the students undertake an exam to confirm that they have understood the safe operation of a laboratory and they also sign a document verifying that they have read and understood the concepts explained to them.

The biosafety measures in the necropsy room are explained by the teaching staff during the performance of a necropsy. The students must put on the appropriate clothing before entering the necropsy room. Protective mesh gloves are available in the necropsy room to prevent cuts being sustained. During the necropsy, should the lecturer suspect that the animal may have a zoonotic disease, the students can use the room's protective masks and goggles. It is rare for this to occur at the current time, as the animals come from well-tended herds.

The Hospital has received a positive assessment in the inspection by the *Consejo de Seguridad Nuclear* (Board for Nuclear Safety). All the teaching staff who work at the Hospital, and students working there, have undertaken the legally required course for operators of diagnostic radiology equipment and they follow a monitoring programme using dosimeters. In order to prevent the dispersion of radiation and the performance of an excessive number of X-ray pulses due to incorrect positioning, the animals are sedated.

When the students undertake practical sessions outside the Faculty, such as on farm visits, the teaching staff explain the

biosafety measures to them, and provide them with single-use overalls and footwear.

All students are covered by a private insurance policy taken out by the University.

# 5.1.5.2 SERVICES (NOT RELATED TO THE TEACHING PROGRAMME) PROVIDED FOR STUDENTS

The current number of international students at the Faculty and the wider university is very high, and for this reason the Office of the Vice-Rector of Students and University Life has instituted the **Campus Life** programme.<sup>25</sup> The aim of this service is to ensure that the international students fully integrate into the University, while enabling the Spanish students to benefit from the multicultural atmosphere.

An online application for **accommodation** has also been created (location, price, etc.) in order to facilitate the search for flats or student residences for new students.<sup>26</sup>

The services offered by the University are briefly described below:  $^{\ensuremath{\text{27}}}$ 

- Sports Service: this facilitates and encourages students to do sport. To this end, agreements have been made with other organizations so that our students can make use of different sports facilities.
- Chair of Solidarity: this promotes volunteering at the University and encourages the creation of charitable projects.
- CEU-Theatre: theatre group for students, lecturers and service staff.
- Choir and Chamber Orchestra: The Choir is a mixed polyphonic SATB choir, for which it is not necessary to have studied music to be a member. For the Chamber Orchestra, members must know how to play a musical instrument.
- Book club.
- **CEU Art Society:** club at which university students can develop their artistic expression.
- **Pastoral service**: this supports students in their Catholic education.
- University Debating Society: club for university students at which debating courses, competitions and tournaments are arranged.
- Model United Nations Society: this enables students to gain better knowledge of the workings of this international organization and to participate in their own Model United Nations (MUN).

Students and staff at the Faculty have two canteens at their disposal (one in the Seminario building and another in the Social Sciences and Law Building), as well as various vending machines distributed across the university premises.

<sup>25</sup> https://www.uchceu.es/en/campus-life

<sup>26</sup> https://www.uchceu.es/futuro-alumno/alojamiento

<sup>27</sup> https://www.uchceu.es/vida-en-el-campus

# 5.1.5.3 GUIDANCE OFFERED BY THE FACULTY FOR STUDENTS WITH PROBLEMS

Ensuring that students are appropriately dealt with at a personal level is a priority for the CEU-UCH, and the Personalized Tutoring Programme has been set up for this purpose, whose key objective is to offer educational and academic guidance, providing the students with a clear and welcoming point of reference at the University. A personal tutor is assigned to each 1st year student at the beginning of the academic year, providing whatever support is necessary in order to support their academic performance. The general functions of this tutoring concern facilitating integration into the university community and academic life, while providing any necessary information, detecting difficulties at an early stage, placing an emphasis on time management and organization, offering study guidance, advising on the choice of subjects and planning the year overall. For this purpose, students are offered a minimum of four interviews over the course of the academic year, coinciding with: the beginning of the academic year (presentation), the first semester assessment, the postexamination period (the semester exam results) and the end of the second semester (end-of-year assessment and preparation for the final exams). A fifth interview may also take place after the results from the 2<sup>nd</sup> semester exams are published. Nevertheless, both students and tutors can arrange an interview whenever they deem it necessary over the course of the academic year.

In order to arrange these sessions, the students and teaching staff have a specially designed online application available to them via the university intranet, with which they can also make electronic queries.

In addition to the Personalized Tutoring Programme, students can also speak to the member of staff who is the group coordinator, who can also draw on the psycho-pedagogical support of the *Servicio de Orientación Universitaria y Atención a la Discapacidad* (SOUAD, University Guidance and Disability Service).

The SOUAD<sup>28</sup> consists of a team of psychologists and educational experts, whose main function is to provide guidance, free of charge, to students regarding personal, academic and professional issues. The service can draw up personalized study plans to improve students' academic performance. Besides providing a personalized service, SOUAD also runs courses on enhancing the learning process, covering skills such as team-working, healthy eating and positive thinking, amongst others.

This service is responsible for advising students with specific educational needs deriving from a disability and to promote the accessibility of curricular activities and university facilities. If there is a person with specific educational needs in a particular academic year, then the psycho-pedagogical service will provide information about the specific measures to be put in place by the academic staff teaching that student and will monitor their implementation.

#### 28 https://www.uchceu.es/servicios/orientacion-universitaria

# 5.1.5.3 GUIDANCE OFFERED BY THE FACULTY FOR FUTURE CAREER DEVELOPMENT OR JOB SELECTION

The Servicio de Información, Prácticas y Empleo (SIPE, Information, Internships and Employment Service)<sup>29</sup> coordinates all of the activities which seek to assist our graduates in their search for employment or in their efforts to create jobs. The SIPE also has an Employment and Careers Service.30 Those graduates registered with this service are sent information regarding vacancies at registered companies. A weekly newsletter is also sent out detailing available online vacancies, information on job portals, available scholarships, articles of interest, or activities organized by the University or other organizations which our graduates may find attractive. In the same way, emails are sent to publicise training activities or to provide information considered to be of interest. These emails are not sent out at regular intervals, as their frequency depends on that of the events themselves. Assistance is also provided to students and graduates in drawing up CVs and covering letters, and also to prepare them for job interviews.

The Faculty also has a large number of agreements in place with companies which enable students to undertake voluntary internships over the course of their studies, thus making it possible for them to become more familiar with the different types of veterinary careers (Table 5.1). The number of students undertaking external, voluntary internships, both within Spain and abroad, is very high: around 180 students per academic year.

Two programmes undertaken by the University are:

**The CEU Accede<sup>31</sup> programme** aims to improve the employability of our undergraduates, postgraduates and alumni. It provides participants with the right tools to undertake their job search and to improve their social skills in the workplace, focusing particularly on transferable skills. The programme website details the activities organized since 2012.

**The CEU Emprende**<sup>32</sup> **programme** provides training and support to future entrepreneurs, by encouraging the entrepreneurial spirit among our students and alumni. The Faculty has two Entrepreneurial Tutors who are available to those students and alumni who are looking to set up their own business. The programme website details the activities organized since 2012.

### **5.2 COMMENTS**

In recent years, the systems of internal coordination have been strengthened, with annual improvements being made by means of the Teaching Improvement Plan and teaching methods being modified to being them into line with the European Higher Education Area (EHEA).

**Continuous assessment** over the course of the semester now forms part of every subject in order to ensure that students

<sup>29</sup> https://www.uchceu.es/servicios/sipe

<sup>30</sup> Https://www.uchceu.es/servicios/sipe/unidad-empleo

<sup>31</sup> https://www.uchceu.es/empleabilidad-emprendimiento/actividades?tipo=ceu-accede

<sup>32</sup> https://www.uchceu.es/conocenos/valor-de-la-diferencia/emprendimiento



work over the whole of the semester and not just in the week before exam sittings.

Students can actively participate in the system for the assessment of the teaching staff, the curriculum and their internships, but the level of participation is low. In order to stimulate greater participation, various strategies have been put in place:

- A prize draw for an iPad for those students who take part in the teaching assessment surveys.
- Surveys concerning student satisfaction with the educational programme are now undertaken at a different time (February), as until 2013-14 they were performed at the same time as those for the assessment of the teaching staff. It is thought that participation was low as students had to fill out the questionnaires for the educational programme immediately after filling in those for the curriculum.
- The UDEC (the Strategic Development and Quality Unit) has proposed to the VOAP (Office of the Vice-Rector for Academic affairs and Academic Staff) those modifications, which, based on the suggestions made by the Faculty's General Student Representative, would improve the online application.

The assessment of those organizations with which internship agreements are in place is by means of a paperbased questionnaire which the students must hand in at the same time as their report on the *Practicum*.

### 5.3 SUGGESTIONS

The number of assessment exercises carried out during the semester should be adjusted in order to avoid overloading the students.

The Dean's Office should send a request to the Office of the Vice-Rector of Academic Affairs and Academic Staff for the organization of an annual pedagogical innovation course specifically aimed at Veterinary Medicine.

It would be desirable for more administrative personnel to be assigned to the management of internship agreements and to provide administrative support to the external internships.

Strategies should be put in place to encourage greater student participation in the surveys.

# CHAPTER 6. FACILITIES AND EQUIPMENT

### 6.1 FACTUAL INFORMATION

### 6.1.1 PREMISES IN GENERAL

Teaching for veterinary studies takes place in several different facilities across the CEU-UCH University's campus. The corresponding maps can be viewed in Annex 4.

The following table lists the buildings in which teaching takes place:

Building	Activity	Location
Veterinary School	Teaching / Administrative	Alfara
Veterinary Teaching Hospital	Teaching / Clinical Services	Alfara
Teaching Farm	Teaching / Clinical Services	Náquera
Seminary Building	Laboratories/ Administrative/ Services	Moncada
L.C. Górriz Building	Teaching / Administrative/ Services	Alfara
Library	Services/ Teaching	Alfara

### 6.1.2 PREMISES USED FOR CLINICS AND HOSPITALIZATION

### A. HOSPITAL CLÍNICO VETERINARIO (HCV-CEU)

This teaching resource is where the Bachelor's Degree students receive most of their practical clinical training. This new building has a gross floor area of 4.500 m<sup>2</sup>, located 200 metres away from the Faculty of Veterinary Medicine. The hospital has clinical facilities for small animals and horses, a secure pharmacy, two classrooms, an anatomy and dissection room, a necropsy room, a microscopy room and histopathology laboratory. Until this year, the Faculty provided clinical services for small animals in a location 500 metres away from the Faculty and for equine animals at the farm.

The clinical activities at the HCV-CEU are divided into two services: the clinical service for small animals and the clinical service for equines.

### CLINICAL SERVICE FOR SMALL ANIMALS

The HCV-CEU began operation as a referral centre for veterinary services in 2001 for veterinary surgeons treating small animals in Valencia. Later, the number of services was increased and these were offered to the general public. In 2008, the 24-hour emergency service, open 365 days a year, was launched and continues to operate.

This service provides first-opinion care in the areas of internal medicine, surgery and other specialisms, as well as cases which are referred to it by other veterinary surgeons, mostly from the province of Valencia. The UCH-CEU students, staff and other group receive certain benefits and discounts for their own animals. Most of the animals treated are cats and dogs, although other types of pets are also treated.



### UBICACIÓN DE LOS ESPACIOS DOCENTES DE LA FACULTAD DE VETERINARIA



The HCV-CEU website (https://www.uchceu.es/centros-ceu/ hospital-clinico-veterinario) contains information about the facilities, services and staff of the Clinical Service for Small Animals.

### EQUINE CLINIC SERVICE (ECS)

The ECS has been operating since 2009, providing clinical care to internal cases (horses owned by the University) and external ones. The SCE is open 24 hours a day, 365 days a year, using an appointment system and treats musculoskeletal disorders, reproductive disorders, abdominal pain, and undertakes dental work, neutering procedures and endoscopies, amongst other activities. These are all carried out at the HCV-CEU.

The ECS also hosts a stud farm for state-owned stallions, originated from the Spanish Ministry of Defence's horsebreeding farm in Zaragoza (*Centro de Cría Caballar*), with the aim being to offer a service to those owners interested in the insemination of their mares. This is a great learning opportunity for our students, from both the reproductive and handling perspectives, as these are horses which need activity every day, something which forms part of the working protocols. This activity takes place at the University's Teaching and Research Farm.

In 2008 a quality assurance system was put in place at the HCV-CEU (UNE-EN-ISO 9001:2008) which has substantially improved service operations. A manual details the operational procedures and regulations, and compliance with these is mandatory for staff working at the HCV-CEU. The certification is renewed on an annual basis.

The radiology facilities are also subject to periodic checks and a detailed radiological protection programme is followed, in collaboration with the company Unidad de Radiofísica, S.L. The regional government's Department of Health also undertakes inspections in order to ensure that legislation is complied with regard to animal by-products not intended for human consumption.

### B. TEACHING AND RESEARCH FARM

This is located within the municipal boundaries of Náquera, just 11 kilometres from the Faculty of Veterinary Medicine.

It is currently home to seven species of animal: cows, sheep, goats, horses, chickens, rabbits and dogs.

All our students undertake practical sessions at the farm during their first year, with these becoming more demanding and specialized as they progress in their studies. Thus, one of the aims of this facility to provide wide-ranging practical training to the students, both with regard to animal production and clinical care. The students undertake practical sessions in animal handling, clinical care, and reproduction for livestock and horses. They also begin their training in the handling and clinical examination of small animals, before they begin dealing with real cases at the HCV-CEU. The main building, the *Edificio Central*, has 2.446 m<sup>2</sup> of gross floor space and provides access to each of the six Animal Units: cows, sheep and goats, birds, rabbits, equines, and small animals. These Units operate independently, with the same facilities being used for sheep and goats, given the similarities between them in handling and production.

The main building also houses the concierge's office, the hospital management, two supplementary classrooms, a laboratory, changing rooms with showers and lockers, a break room for those looking after the animals, a store-room and a secure pharmacy.

Each of the Animal Units has two modules: one module where the animals are housed and another for the examination rooms or laboratories, depending on the species concerned. Both modules possess all the necessary equipment for the performance of the practical activities. A more specific description of each Unit is given below:

- The Bovine Unit can house 15 cows in a free-stall barn, with a covered rest area and an open exercise area. It has autonomous milking equipment, a portable ultrasound scanner and cattle crushes. The other module consists of an examination room.
- The Small Ruminants Unit (sheep and goats) has a capacity for 60 animals, with the housing module divided into two sheepfolds. The other module has two reproductive areas (one of which has microscopes), and it also has autonomous milking equipment.
- The Equine Unit is made up of a housing unit consisting of a stable with twelve stalls and an adjoining paddock, enabling these animals to enjoy a certain amount of freedom. It also has a horse crush for examinations and a phantom mount for the collection of semen in the paddock. In the same location there is a further area with another ten stalls, in order to house further horses if necessary. The second module also has two examination rooms, with a horse crush in each.
- The **Rabbit Husbandry Unit** has a building for the housing of these animals, a working room and a storeroom.
- The Aviculture Unit has a module for the housing of the animals, divided into three large cages. This building also has a set of cages for egg-laying hens and cockerels. The second module contains a working room and a storeroom.
- The Household Pet Unit has a module with individual kennels and common areas, in which dogs can interact with each other and learn to relate to other dogs. At the current time, it houses beagles, as these are used in the assessed practical sessions of subjects related to clinical care. The second module contains the examination room.

The number of places available at the HCV-CEU for the hospitalization of animals is shown in Table 6.1.

# Table 6.1. Places available for hospitalization and animals to be accommodated

	Species	Places (Non infectious)	Places (Infectious)	Places (ICU)
	Cattle*			
Regular	Horses	10	3	4
hospitalization	Small Ruminants*			
	Pigs*			
	Dogs	15	10	15
	Cats	15	10	15
	Exotic animal	15		
Isolation	Farm animals and horses			
facilities	Small animals			
	Others			

\* The teaching and research farm houses livestock (cows, small ruminants) which are used for teaching purposes in clinical and preclinical subjects (for example, in propaedeutics). The HCV-CEU does not have capacity for the admission of these animals, which are usually treated *in situ* at external locations.

There are three areas for the hospitalization of large and small animals:

- **Hospitalization 1:** This is considered to be "ordinary" hospitalization for dogs, cats and exotic animal with diseases for which there is no likelihood of this being transmitted to other animals or humans. For hospitalizations of this type, there are ICU cages for those animals that require intensive care.
- Hospitalization 2: For dogs and cats with infectious diseases with a low likelihood of transmission to other animals or humans, not including drug-resistant bacterial diseases. For hospitalizations of this type, there are ICU cages for those animals that require intensive care.
- Hospitalization 3: This type of hospitalization involves isolation and is reserved for dogs and cats with infectious diseases with a high likelihood of transmission to other animals or which involve pathogens which pose a high risk to humans. This class includes those animals with drugresistant bacterial infections. For hospitalizations of this type, there are ICU cages for those animals that require intensive care.

### 6.1.3 PREMISES FOR ANIMALS

The animals treated at the Hospital HCV-CEU mainly come from three sources:

- Private citizens (first opinion or specialisms).
- Referrals from other veterinary clinics.
- Collaboration agreements with public and/or private institutions:

- Sociedad Valencia Protectora de Animales y Plantas (SVPAP, the Valencian Society for the Protection of Animals and Plants), which sends clinical cases and animals for neutering.
- The town councils of Moncada, Náquera and Alboraia for the neutering of cats.
- The Emergency Military Unit at the military base in Bétera (Valencia), for the clinical treatment of their working dogs.
- The University also has its own dogs, horses, cows, sheep, poultry and rabbits at the Teaching and Research Farm. These animals are used for practical teaching as part of the degree programme. The farm does not have pigs because legislation prohibits the breeding of pigs near to residential areas. Practical sessions with this species are carried out at external farms, to which the students travel to receive training of this type.

### 6.1.4 PREMISES USED FOR THEORETICAL, PRACTICAL AND SUPERVISED TEACHING

The HCV-CEU has a foyer with a communal reception area for owners, and separate waiting areas for different types of patient. As well as the facilities described in Table 6.2, there is also an exterior retraining and socialization area with a walkway and a rehabilitation and physiotherapy room (see Annex 4).

Table 6.2.	Premises	for clin	ical work	and s	tudent	training.
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Small animals	N° consulting rooms: 10	Triage room: 1 Internal medicine: 2 General surgery: 1 Orthopaedics: 1 Neurology/Ophthalmology: 1 Reproduction/exotic animal: 1 Cardiology: 1 Hospitalization: 2							
	Diagnostic imaging services	Radiology: 1 Ultrasound: 1 CAT: 1							
	Nº surgical suits	2							
	Presurgery room	1							
	Hospitalization	Hospitalization type1 (ordinary): 3 (dogs, cats, exotic animal) Hospitalization type2 (non-infectious): 2 (dog, cat) Hospitalization type3 (infectious/isolation): 2 (dog, cat)							
	N° consulting rooms: 3								
	Diagnostic imaging services	Radiology-ultrasound: 1							
Horses	Nº surgical suits	2							
	Presurgery room	1							
	Hospitalization	Hospitalization 1: for non-infectious animals Hospitalization 2: for ICU Hospitalization 3: for infectious animals							

The facilities at the Hospital HCV-CEU include anatomy and necropsy rooms. The necropsy room has space for 30 students, 12 dissection tables and a refrigeration unit for storing carcasses. The necropsy room, with capacity for 20 students, has eight dissection tables, a hoist to move large carcasses and refrigeration and freezer units.

Access to the clinical diagnosis and pathological anatomy laboratories at the HCV-CEU is limited to laboratory technicians, research staff, veterinary interns and 10<sup>th</sup> semester students.

Table 6.3 provides a summary of the lecture halls and classrooms available for teaching. These are equipped with a computer, projector, PA system, speakers, interactive whiteboards (those in the Faculty of Veterinary Medicine building) and a traditional blackboard. Lecturers access these rooms using their university ID cards. The lecture halls vary in capacity to suit the type of activities they are designed for.

### Table 6.3. Lecturing facilities

	Number of places per lecture hall: Faculty of Veterinary Medicine building												
Hall	AM1	AM2	АМЗ	AM4	AM5	AD1	AD2	AD3	AD4	AD5	AD6	AI11	AI21
Places	88	88	88	88	88	48	54	48	48	54	47	33	21
Number of places per lecture hall: Luis Campos Górriz Building													
Hall	A106	A107	A108	A109	A110	A111	A112	A113	A001	Aı Maş	ila gna		
Places	68	76	77	76	77	77	76	77	120	16	60		
	Number of places per lecture hall: Seminario Building												
Hall	S11	S21	S31										
Places	20	26	29										
			Num	ber c	of pla L	ices _ibra	per le ry	ectur	e hal	l:			
Hall	L11	L2	L3										
Places	30	40	40										
Number of places per lecture hall: Hospital Clínico Veterinario (V1, V2) and Teaching Farm (T1,T2)													
Hall	V1	V2	T1	T2									
Places	40	40	20	47									

1Lecture halls with computers for student use.

The Faculty of Veterinary Medicine has 10 rooms for students to use for group work, tutoring sessions, or staff meetings (Table 6.4).

STG1 and STG10 are also used as meeting rooms for the Department of Animal Medicine and Surgery, and the Department of Animal Production and Health, Public Veterinary Health and Food Science and Technology.

STGL: *Sala de Trabajo en Grupo en Biblioteca* (Group Work Room in the Library).

For the basic and preclinical subjects, 17 teaching laboratories are used which are located in the *Seminario* building. These laboratories are also used by students of other degree programmes at the University, with 55% of their use being for Veterinary Medicine students. Each is equipped with 15 workstations at which students are provided with all the necessary consumables they need to undertake practical sessions appropriately and autonomously. For the 2<sup>nd</sup> semester of 2016-2017, these laboratories will be moved to the new Faculty of Health Sciences building, enabling our students to undertake practical sessions in new laboratories equipped with the latest technology.

Table6.5.Facilities for practical sessions (laboratorycapacity for students' practical sessions)

Laboratory	Al31	Lab1 <sup>2</sup>	Lab2	Lab3	Lab4	Lab5	Lab6	Lab7	Lab8	Lab9
Places	21	15	15	15	15	15	15	15	15	15
Laboratory	Lab10	Lab11	Lab12	Lab13	Lab14	Lab15	Lab16	Lab17	F1 <sup>3</sup>	F2
Places	15	15	15	15	15	15	15	15	15	15
Laboratory	F3	F4	F5							
Places	15	15	15							

<sup>1</sup>Al3: Located within the Faculty of Veterinary Medicine and equipped with 21 optical microscopes for practical histological sessions.

<sup>2</sup>Lab1-17: Laboratories located in the Seminario building.

<sup>3</sup>F1-F5: Laboratories located at the farm

As was mentioned above, there are also five laboratories at the Teaching and Research Farm and a room equipped with microscopes at the Faculty of Veterinary Medicine (Table 6.5).

Section 5.1.5 details the measures implemented to protect students from zoonoses and physical hazards. A bio-safety protocol has also been put in place for the laboratories, the HCV-CEU and the Teaching Farm, in accordance with legislation. More specifically, the HCV-CEU has been designed to ensure that staff and patient flows do not occur in the same areas. The rooms for infectious animals are equipped with a negative pressure system to ensure that pathogens do not

Table 6.4. Facilities for group work (rooms that can be used for supervised group work).

Number of places per group work room: Faculty of Veterinary Medicine building													
Room		STG1	(	STG2	STG3	STG4	STG5	STG	6 5	STG7	STG8	STG9*	STG10
Places	6	12		6	6	6	6	6		6	6	6	12
					Numb	er of plac	es per grou	p work ro	om: Libra	ry			
Room	STGL	.1 S <sup>-</sup>	FGL2	STGL3	STGL4	STGL5	STGL6	STLG7	STLG8	STGL9	STGL10	STGL11	STGL12
Places	6		6	6	6	6	6	6	6	6	6	6	6

STG= Sala de Trabajo en Grupo (Group Work Room).

STG9: Exclusively for use by student representatives.

escape. With regard to these rooms and those of anatomy and pathological anatomy, effluent is treated and air is filtered (using HEPA filters) independently in accordance with the corresponding bio-safety regulations.

### 6.1.5 DIAGNOSTIC LABORATORIES AND CLINICAL SUPPORT SERVICES

#### **Diagnostic laboratories:**

- HCV-CEU clinical diagnostic laboratory. Located within the HCV-CEU facility, it acts as the laboratory for clinicalpathological diagnoses and clinical research. Access to it is restricted for students, as they can only enter if they are accompanied by authorised personnel: laboratory technicians, lecturers, researchers and veterinary interns. It has two optical microscopes, an automatic analyser for haematology (CellTac®, Nihon Kodhen), two automated analysers for biochemistry (Spinreact 120® and Spin 200E®), a semiautomatic coagulometer (Clot-SP®, RAL), an electrophoresis device (Scanion®) and devices for the routine processing of blood, urine, cytolology and faecal samples. The laboratory also provides a diagnosis service to external clinics. The hospital possesses an emergency laboratory located in the hospitalization area for urgent tests.
- Anatomopathological diagnosis laboratories. The pathology service is comprised of five full time pathologists (three for necropsies and two for biopsies) and one technician. The head of the pathology service is a board certified specialist (Diplomate of the American College of Veterinary Pathologists). There is a fully equipped histopathology laboratory and several special stains and immunohistochemistry are available. There are several microscopes (including a multi-head microscope) and a digital slide scanner (Leica SCN400).
- Teaching laboratories. Located in the Seminario building, 100 metres from the Faculty of Veterinary Medicine. There are 17 laboratories equipped with 15 workstations for basic and preclinical practical teaching. There is a plan in place for these laboratories to be moved to the new Health Sciences building by the beginning of the 2017-2018 academic year. The new facilities will be equipped with the latest technology, in accordance with health and safety regulations and the code of Good Laboratory Practice. As has been stated above, the Teaching and Research Farm also possesses another five laboratories (Table 6.5).

### Central clinical support services:

The HCV-CEU has a **diagnostic imaging** service in both areas (Small Animal Clinic and the Equine Clinic). Each service has radiology equipment and a high-end ultrasound scanner. Our radiographs are produced digitally, with it being possible to access the imagery from the computers of the various consulting rooms using the image management programme Efilm®. The service has six radiological teaching staff, a veterinary intern, a student with a collaboration scholarship and the HCV-CEU student interns, with the daily clinical activity being organized on this basis. The facilities are in use 24 hours a day. All staff who operate the radiological diagnostic equipment are fully qualified to do so. The HCV-CEU possesses a picture archiving and communication (PACS) system, enabling the digital storage, transmission and downloading of high-quality radiological imagery, whether these CAT scans or X-rays. This makes it possible to diagnose urgent cases via an online system. The same system enables such imagery to be used in classrooms.

There is also an **anaesthesia service** for each of the two areas (Small Animal Clinic and the Equine Clinic). This service is made up of five anaesthesia teaching staff, a veterinary intern and four HCV-CEU student interns. The service possesses various items of anaesthesia equipment, as appropriate to each area, with oxygen ports available in all rooms of the hospital.

### 6.1.6 ABATTOIR FACILITIES

The practical sessions at abattoirs are undertaken by accompanying the official veterinary service at four locations with which an agreement is in place, as was detailed in section 4.1.5.

The abattoirs at which the practical sessions are undertaken slaughter 9000 cattle, 665,000 pigs, 50,200 sheep and 6800 equine animals on an annual basis. The poultry abattoir slaughters animals five days a week: around 150,000 chickens are slaughtered there annually.

### 6.1.7 FOODSTUFF PROCESSING UNIT

The Faculty of Veterinary Medicine has an agreement with several laboratories and pilot plants where the students can undertake practical work related to the manufacture and processing of food products:

- The LA CAMPANA pilot plant prepares and produces meat products. The company is located in the town of Lliria, 15 km away from the Faculty of Veterinary Medicine. It is equipped with the latest technology for the production of meat products. Students develop and produce three meat products here and review the HACCP system.
- The CASEUS pilot plant produces dairy products. Located within the campus of the Universitat Politècnica de València, 12 km from the Faculty of Veterinary Medicine, the plant is equipped with the latest technology for the production of dairy products. As part of their practical work here, the students develop and produce several products, and comment on and analyse the HACCP system employed, while also putting together a Cleaning and Disinfection Plan suitable for the dairy industry.
- The LICOVAL Inter-professional Laboratory. Located 12 km from the Faculty of Veterinary Medicine. Practical sessions here involve the students reviewing the protocol for the taking of milk samples from the storage tank after

milking (goat's milk) and testing for the presence of waste products and possible fraud due to the addition of water, amongst other problems.

### 6.1.8 WASTE MANAGEMENT

All carcasses and animal remains originating from the various services of the HCV-CEU (necropsies, dissections, surgery, etc.) and the Teaching and Research Farm are stored in hermetically sealed containers located in the necropsy room, stored within a freezer chamber at -20° C. This waste is regularly collected by the company **Gesmer Logistics Mer, S.L.**, authorized by the Livestock Technology and Innovation Service of the Department of Agriculture of the Generalitat Valenciana (the regional government) for the transport of category I animal by-products. In the case of large animals (horses or cows) that die on the premises of the HCV-CEU or the Teaching and Research Farm, this company is responsible for sending a vehicle and removing the carcass the same day. Legislation regarding animal by-products which are not intended for human consumption is complied with at all times.

Hazardous waste (needles, sharps, biologically contaminated materials, pharmaceuticals, chemicals, etc.) is collected separately in accordance with official regulations and is removed by a professional company.

### 6.1.9 FUTURE CHANGES

One of the main challenges for the future for our Faculty is to improve the performance of the HCV-CEU. The new equipment and facilities will open up new possibilities in terms of education, veterinary care and research for all our students and lecturers at the Faculty, as well as for the veterinary professionals in the region.

Furthermore, once the construction of the Faculty of Health Sciences is completed, we will have new laboratories, fully equipped with the latest technology, which will be operational for the 2<sup>nd</sup> semester of the 2016-2017 academic year.

### 6.2 COMMENTS

Firstly, the Faculty of Veterinary Medicine is located in a modern, comfortable and intelligent building of recent construction (2013). The facilities are very well-appointed and house the Dean's Office, the Faculty Secretary's Office, the lecturers' offices and the majority of the lecture halls for the theoretical classes. There are also rooms for students' group work and for tutoring sessions which improve student-lecturer communication. All of the lecture halls and smaller classrooms are equipped with a computer, a projector, internet access, a PA system, speakers, a digital whiteboard and a traditional blackboard, with all the necessary programmes installed for teaching. The different facilities of the Faculty of Veterinary Medicine (classrooms, laboratories and the HCV-CEU) are in close proximity, facilitating greater lecturer/student interactions. The University also lays on a bus service to transport students to the Teaching and Research Farm.

Secondly, the new HCV-CEU enables us to considerably improve the clinical service the Faculty is able to offer, which will have a very positive effect on the education of our students. Thus, for example, it now has the facilities for equine surgery, which it was previously necessary to carry out at external locations. This new infrastructure will cover a gap in care in the catchment area of the Faculty of Veterinary Medicine and translates into a qualitative and quantitative improvement in the care provided to horses. This will have positive effects on the education of veterinary students and on the private clinics in the area. Also, the presence of specific surfaces for the diagnosis of lameness, along with surgical facilities, will provide a boost to research in equine medicine and surgery. Furthermore, the new HCV-CEU building will facilitate the integration of students studying clinical subjects in the small animal area, especially with regard to hospitalization.

Thirdly, the Teaching and Research Farm enables practical activities to be carried out with animals owned by the University, facilitating the performance of basic procedures with different species. With regard to the laboratories, as has been mentioned above, these are located in the Seminario building, in close proximity to the Faculty, and these are set to move to the new building in the 2<sup>nd</sup> semester of the 2016-2017 academic year, which will house new facilities which are well equipped with the latest technology.

Finally, agreements are in place with several external pilot plants (described in sections 4.1.5 and 6.1.7), which are near to the University, enabling the students to use high-quality facilities equipped with the latest technology. Furthermore, as there are several such pilot plants, our students can gain experience of different types of facilities and technological equipment, broadening the range of knowledge they acquire. For this reason, we do not think that it is essential for us to have a pilot plant on the University's own campus.

### 6.3 SUGGESTIONS

The renovation or replacement of the teaching and research laboratory facilities in the Seminario building would be desirable, as these are the oldest facilities the Faculty possesses and they are now in some respects obsolete. With the construction of the new Faculty of Health Sciences building, this suggested improvement would be made reality by the 2<sup>nd</sup> semester of the 2016-2017 academic year.



# CHAPTER 7. ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

### 7.1 FACTUAL INFORMATION

### 7.1.1 ANATOMY

Whole dog carcasses are obtained from local animal shelters and specialized companies (<u>www.carolina.com</u>). The dog carcasses are of healthy dogs submitted for euthanasia. The whole carcasses are used either fresh or preserved in formalin (or similar fixative solutions).

Partial carcasses and specimens of healthy cattle, horses, sheep and pigs are obtained from local slaughterhouses and the necropsy room. These specimens are mainly used fresh but some are also preserved in formalin (Table 7.1).

### Table 7.1: Material used in practical anatomical training

	Do	bg	Rum	inant	Equ	line	Others	
	Year	Year	Year	Year	Year	Year	Year	Year
	14-15*	13-14	14-15*	13-14	14-15*	13-14	14-15*	13-14
Live animals <sup>1)</sup>	0	0	0	0	0	0	0	0
Carcasses <sup>1)</sup>	24	14	0	0	0	0	1007)	1007)
Partial carcasses	0	0	9 <sup>3)</sup>	6	10 <sup>3)</sup>	16	0	0
Specimens <sup>1)</sup>	0	0	150 <sup>4)</sup>	150	505)	50	2006)	200 <sup>6)</sup>
Other <sup>2)</sup> : bones	280	260	266	266	372	372	657)	657)
eg ultrasound								
Computer assisted teaching								

<sup>1)</sup> give figures, <sup>2)</sup> indicate, \*year prior to visit

<sup>3)</sup> fore and hind limbs; <sup>4)</sup> 100 specimens (organs) from sheep and 50 from cows: lung, heart, tongue, kidney, spleen, liver, stomach (all chambers), penis, testicle and uterus; <sup>5)</sup> 50 specimens (organs) from horses: lung, heart, tongue, kidney, spleen, liver, stomach, penis, testicle and uterus; <sup>6)</sup> specimens (organs) from pig: lung, heart, tongue, kidney, spleen, liver, stomach, penis, testicle and uterus. <sup>7)</sup> carcasses and bones from broilers.

### 7.1.2 PATHOLOGY

The biopsies and necropsies submitted to the Pathology Service come from different sources:

- The Hospital Clínico Veterinario (HCV-CEU) and the Teaching and Research Farm, i.e. from the CEU-UCH campus.
- Veterinary hospitals and practitioners in the Valencia area.
- Farms (mostly sheep and goats).
- Valencia zoo (Bioparc) and Valencia aquarium (Oceanogràfic).

In total, more than 800 necropsies and 150 biopsies were submitted to this service last year (Table 7.2).

Most of the necropsies are performed by students under the supervision of a pathologist during their practical classes. However, there is always a pathologist on duty for those weeks when the students are absent from the clinics.

### Table 7.2. Number of necropsies over the past 3 years

	Cracico	Number	Number of necropsies					
	Species	14-15*	13-14	12-13	Average			
	Cattle	18	25	2				
Food-	Small ruminants	110	131	143				
producing	Pigs	64	56	20	190			
animals	Other farm animals	0	0	0				
Equines		17	16	9	14			
Poultry		247	298	300	40.4			
Rabbits		83	30	9	484			
Household pets/exotic	Dogs	147	117	124				
	Cats	161	97	64	266			
animals	Others	12	50	25				

### 7.1.3 ANIMAL PRODUCTION

# Food producing animals available for practical teaching of students

#### A. On campus

The Veterinary School's facilities include the Teaching and Research Farm located 11 km away from the main building. In the farm there is:

A herd of 12-15 non-lactating cows (beef and dry dairy cattle) available for training students throughout the year in animal husbandry, taking blood samples, clinical examination, hoof care, rectal palpation of the reproductive tract, and artificial insemination techniques. The farm is also used for a practical class of cattle foot trimming with specimens from abattoirs; each student has access to two hooves.

A flock of approximately 45 sheep (40 ewes and 5 rams) available for training students in animal husbandry, taking blood samples, hoof care, lamb care, pregnancy diagnosis (ultrasonography), soundness for breeding, general clinical examinations, and obstetrics during lambing periods.

In addition, the teaching farm has a flock of poultry (hens) and a herd of rabbits for the teaching of students who are taking specialized subjects in rabbits and poultry production in the  $7^{th}$ 



semester. Some of the procedures that the students perform with the hens and rabbits consist of taking different clinical samples (blood, cloacal swabs, etc.).

### b. At other sites to which the institution has access

The Veterinary School has signed agreements with private farms at which part-time Faculty staff also work. The main farms used are: i) a dairy cattle farm with 1200 milking cows located in Bétera, 15 km from the Faculty; ii) a dairy sheep farm with 2000 milking ewes located in Catadau, 55 km from the Faculty; iii) several other farms of broilers, hens, rabbits, pigs, sheep and beef cattle production located within the region of Valencia. Students attend these farms on a regular basis during their species-specific subjects: small ruminant farm production and herd health, pig farm production and herd health in the 3<sup>rd</sup> year, and cattle farm production and herd health in the 4<sup>th</sup> year.

### 7.1.4 FOOD HYGIENE/PUBLIC HEALTH

The practical teaching of students in veterinary public health, food hygiene, inspection and technology is performed in the course of the intramural and extramural training. Practical sessions for each group are performed at accredited intramural training facilities, examining raw milk, milk products, fish, honey, stuffed meat products, eggs, and typical canned food products. Some of these practical sessions are performed at external pilot plants, as explained above (chapter 4.1.5).

Practical training in meat inspection is performed at accredited abattoirs, with one visit to an abattoir for pigs and/or cattle and/or sheep and another visit to a poultry abattoir under the supervision of official veterinary surgeons (described in chapter 4.1.5).

### 7.1.5 CONSULTATIONS AND PATIENT FLOW SERVICES

### 7.1.5.1 CONSULTATION

### Production Animal Clinic

The CEU Veterinary School has no production animal clinic as such. The Region of Valencia has a low number of farm animals needing veterinary clinical care (cattle and small ruminants mainly), and so the low prospective caseload of diseased foodproducing animals makes a stationary or ambulatory clinic within the Faculty non-viable. Instead, students are sent to private clinics with high caseloads located across Spain during their final three years as part of their different species-specific subjects. The production animal clinic is undertaken at external locations for the different species.

### **Small Animal Clinic**

The HCV-CEU is open 24 hours a day, 365 days a year. During term-time (September to May) 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year undergraduates studying clinical subjects play an active role in the hospital's activity, during normal working hours (08:00-20:00), and on night shifts (20:00-9:00).

The Faculty has 23 beagles (13 males and 10 females) for the purpose of carrying out the above mentioned practical sessions at the HCV-CEU and those which are carried out with 1<sup>st</sup> year students with regard to general and basic handling. The health of these animals is checked twice a year, with a complete set of analytical tests and a preventive medicine plan in order to ensure the appropriate conditions exist for the practical sessions to take place.

### **Equine Clinic**

The equine clinic's emergency service is open 24 hours a day, 365 days a year, and receives both first-opinion and referral cases. Although this service uses an appointment system, owners can arrange to come to the clinic by calling day or night. The clinic provides medical, reproductive and surgical care. Until the opening of the new hospital, only minor (standing) surgery was performed, as there was no operating theatre available. Patients requiring surgery were referred to a nearby private equine hospital. Previously therefore, 4<sup>th</sup> year students received surgical training as part of a regular practical class in a specially-hired private equine hospital, in which donated or purchased equine patients were anaesthetized and used for this purpose.

In addition, the Faculty of Veterinary Medicine owns 14 horses (10 mares, 2 stallions and 2 geldings). These horses are used as "healthy animals" during teaching of the degree subject Equine Clinic I and II (lameness and pre-purchase examinations, medical and reproductive procedures) in the 5<sup>th</sup> and 8<sup>th</sup> semesters, respectively. Furthermore, they are used for student training in basic clinical subjects (horse handling skills, general clinical examination, blood sampling) during the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> semesters.

Currently, all clinical cases are treated at the HCV-CEU, which possesses all the necessary services for equine clinical care.

### 7.1.5.2 PATIENT FLOW

Table 7.3 displays the patient flow for clinical cases treated at the University.

Table 7.3: Number of cases: a) received for consultation, and b) hospitalized at the Faculty clinics, in the past three years

			Nu	imber o	f case	S		
Spee	cies	14-1	5*	13-14		12-	-13	Average
		а	b	а	b	а	b	
Food-	Bovine							
producing <sup>#)</sup>	Sheep, goats							
	Pigs							
	Other farm animals							
Poultry								
Rabbits								
Equines		59	11	96	42	80	36	108
Household	Canines	4825		4809		5251		
pets /exotic	Felines	2226	918	2000	931	1469	763	7781
aninais	Other**	42		60		51	100	

\*year prior to evaluation, \*\*exotic animals include: rabbits, turtles, reptiles and birds. #) There is no food-producing animal clinic.

### 7.1.6 VEHICLES FOR ANIMAL TRANSPORT

The HCV-CEU has a van for the transportation of live animals from the Teaching and Research Farm and from the *Sociedad Protectora de Animales y Plantas* (Society for the Protection of Animals and Plants).

The owners of the animals travel to the HCV-CEU using their own vehicles or public transport.

The HCV-CEU has a van which is authorized for the transportation of animal by-products not intended for human consumption.

### 7.1.7 ON-CALL EMERGENCY SERVICE

The small animal service of the HCV-CEU has an on-site emergency service, open Monday to Friday from 8 pm to 9 am the following day. It is also open on Saturdays from 2 pm and 24 hours a day on Sundays and public holidays. This service provides internal medicine, surgical and specialist care.

Care is provided by a veterinary intern (VI), who is supported by another VI and a lecturer is also available on-call. Students play an active role in this service, as a student intern is always present, along with a group of 3-4 students studying clinical subjects. The equine unit provides on-site care and is available via telephone 24 hours a day. Care is provided by three veterinary surgeons, 2 collaborating students, 12 student interns and 1 or 2 students per day who are studying clinical equine subjects.

### 7.1.8 ON FARM TEACHING AND OUTSIDE PATIENT CARE

### 7.1.8.1 AMBULATORY (MOBILE) CLINIC

The Veterinary School has no on-call ambulatory clinic, due to the low livestock population and the number of farm animal veterinary surgeons within the region of Valencia. Instead, students are sent to private ambulatory clinics owned by part-time staff of the Veterinary School or external veterinary surgeons. See details in sections 4.1.3.1, 4.1.4 and the next section.

# 7.1.8.2 OTHER ON-FARM SERVICES AND EXTERNAL TEACHING

There are five subjects in the veterinary curriculum which

involve teaching in farm animal clinics and herd health visits:

Cattle production and herd health (semester 7) includes two herd health visits per student to a nearby farm under the supervision of an experienced member of the academic staff with clinical experience in dairy farm management. Since the Veterinary School does not have an ambulatory clinic or its own dairy farm, the University has an agreement with a large dairy farm located nearby (15 km) where all practical undergraduate teaching is carried out. The first herd health visit consists of an evaluation of the passive transfer of immunity and general calf health on a large dairy farm, and the second involves assessing cattle comfort, nutrition, and signs of the incidence of metabolic disease incidence in adult dairy cows. Students also undertake rectal palpations and introduce insemination cannulas in at least 3 animals at the University's farm. This subject has only formed part of the degree studies (new curriculum) since the 2013-14 academic year, and will continue to be taught.

Farm animal clinics (semester 9) is taught completely outside the Faculty of Veterinary Medicine as extramural teaching at private veterinary farm animal practices under the supervision of one or more specialized veterinary surgeons (mainly cattle and small ruminants clinics) or at large dairy cattle or sheep farms which staff one or more veterinary surgeons. The University has agreements in place to provide insurance and liability cover to students during the internship periods. As of academic year 2015-16, each student spends a period of 2 full weeks at these farm animal practices or farms, spending a total of 100 to 120 hours there, including weekends and an out of hours, on-call service). Students may choose the farm animal species and the location of the internship within a wide range of possibilities offered by the University. Most of the available internships are located in the northern region of Spain, where the livestock population and the number of farm animal practices is highest. In the academic year prior to the visit (2014-15), all students stayed in the Region of Valencia for ruminant and swine medicine and surgery within the subject of "Farm Animal Clinics" (first year in the new curriculum). This means that the ratio for this year does not reach the minimum required level (Table 7.4b). Once the extramural internship is finished, each student must produce a written report including the type and number of clinical cases performed or seen during her/his clinical internship.

In addition to the clinical farm animal subjects, the curriculum also includes **three subjects** concerning **farm animal** production which are partially taught at extramural locations. These subjects include **Pig farm production and herd health** (semester 6), **Small ruminant farm production and herd health** (semester 6), and **Poultry and rabbit farm production and herd health** (semester 7).

These subjects include external practical sessions in which various clinical activities are undertaken at the production farms of each of these species. In general, in the case of pigs, students learn to take blood samples, administer drugs, identify when an animal is in season, inseminate and diagnose pregnancies. In the case of poultry, they learn to take blood samples, take cloacal swabs and extract semen. With rabbits, they collect semen and, with small ruminants, they diagnose pregnancies, collect semen, undertake rumenocenteses and play an active role in parturitions.

Table 7.4a: Number of patients seen as part of extramuralteaching in the past three years.

		Numbe	r of patie	nts		
Species		14-15*	13-14	12-13	Average	
Food-	Cattle <sup>1)</sup>	1080	648	304		
producing	Small ruminants <sup>2)</sup>	728	489	392	1898	
annais	Pigs <sup>3)</sup>	682	630	490		
	Other farm animals**	174	75	0		
	Pigs (n° of herd visits)	44#	36#	28#		
	Cattle (n° of herd visits)	18#	15#	24#		
	Small ruminants (n° of herd visits)	12#	15#	12#		
	Poultry and rabbits (n° of flocks/herds) <sup>3)</sup>	40#	28#	12#		
	Aquaculture and apiculture (n° of shoals/hives)	27#	18#	O#		
Equines	225	200	175	200		
Other						

\*year prior to the visit; 1) Cases include inseminations, pregnancy diagnoses, assistance with calving and other obstetric procedures, displaced abomasum surgery, C-sections, treatment of lame cows, vaccinations, blood sampling and administration of drugs. Some of these activities are performed at our teaching farm. 2) Cases include obstetric procedures, rumenocentesis (as part of degree teaching at the teaching farm), diagnosis and treatment of ketosis, diagnostic necropsies, diagnosis and treatment of mastitis, pregnancy diagnosis via ultrasound, blood sampling etc. 3) Cases include pregnancy diagnosis via ultrasound, blood sampling, administration of drugs, etc. \*\*Rabbit and poultry. Includes blood sampling, semen recovery and taking of cloacal swabs, undertaken at our teaching farm.

#) these consist of herd health and production visits to nearby farms as part of degree teaching. There are different farms that are visited by the students on different occasions during the semester. The size of student groups varies according to the overall number of students each year.

### 7.1.9 OTHER INFORMATION

In the **Cattle farm production and herd health** subject (semester 7), uteruses and legs from cows are brought from abattoirs to the Teaching and Research Farm in order to train students in reproductive techniques (scanning and artificial insemination) and hoof trimming. In the **Pig farm production and herd health** subject (semester 6), uteruses from pigs are brought in to train students in reproductive techniques. In the **Small ruminant production and herd health** subject (semester 6), foetuses from ewes are brought in to train students in the diagnosis of infectious diseases.

For the subject of **Equine Clinics I** (semester 5), each group of 6 students are able to see and participate as much as they want in a standing open castration of a horse. These horses are purchased from a livestock dealer and are included in the patient flow (Table 7.3) as equine cases seen and hospitalized at the Faculty's clinics.

During the last semester, as part of the **Practicum** (main internship in semester 10) every student must undertake a compulsory 2 month training placement outside the Faculty (extramural internship). The type of veterinary activity carried out during the extramural internship is chosen by the student. The Faculty of Veterinary Medicine has a broad range of agreements in place for this purpose (695 in Spain and 88 international agreements; see Table 5.1).

# Areas of clinical specialization and the balance between primary (first opinion) and referral cases

### **HCV-CEU** general services

- 1 hospital director.
- 1 pharmacist, part-time
- Administrative and service staff: two administrative secretaries (one full-time and another part-time), two laboratory technicians (clinical pathology and histopathology), two maintenance technicians and an external maintenance company.
- The HCV-CEU histopathology service consists of five full-time lecturers and 4 associate staff working at the anatomopathological diagnostic laboratory, 2 collaborating student interns and 24 student interns.
- 7 Veterinary interns (VI) (these are graduates with less than two years' experience, who undertake a year's worth of training with the possibility of extending this to a second year, while rotating through each of the specialist services for small animals and equines).
- Laboratory: 1 full-time vet, 4 students and 1 collbaorating student intern.
- Anaesthesia: 4 full-time vets, 4 part-time vets.

• Diagnosis: 2 full-time and 4 part-time vets.

### **HCV-CEU Equine Service**

The academic staff from the Department of Animal Medicine and Surgery (Large Animals) run the clinical service offered by the **Equine Clinics**: In total, there are 4 full-time and 7 parttime veterinary surgeons, one veterinary practicener and two veterinary interns. The clinical service is further strengthened with the help of two collaborating students who assist the academic staff in the care of inpatients and in the performance administrative work (ordering, drugs, carrying out the inventory of these, tidying up, sterilizing surgical material, etc.). Several student interns are heavily involved in the service on a regular basis and on demand when there are inpatients. At the Equine Service, about two thirds of the caseload consist of firstopinion patients, with the rest being referral cases.

### **HCV-CEU Small Animal Service**

Those working at the Small Animal Service include three clinical veterinary surgeons on the payroll, seven veterinary interns, and academic staff from the Department of Animal Medicine and Surgery with a clinical profile: fifteen full-time academic staff and twenty-two part-time staff. Apart from the staff working in the central services, these are distributed in the following manner: six for internal medicine, nine for general surgery, four for orthopaedics, one for exotic animals, two for physiotherapy, two for neurology, two for ophthalmology, one for reproduction and one for oncology.

Furthermore, the HCV-CEU also has a collaborating student intern for diagnostic imaging and other student interns, who are students from the 2<sup>nd</sup> to 5<sup>th</sup> years who provide assistance at different times of day within the hospital: the 2<sup>nd</sup> year students are present in the late afternoon and evening, and those from

the 3<sup>rd</sup> to 5<sup>th</sup> years focus on specific areas (eight in internal medicine, four in surgery, four in different specialisms and two in anaesthesia).

Students undertaking clinical subjects (Small Animal Clinic I, 3<sup>rd</sup> year, and Small Animal Clinic II, 4<sup>th</sup> year) take part in everyday clinical activities, forming small groups in the different consultation areas and services of the Hospital (Table 7.4. c).

The HCV-CEU treats animals from private owners seeking a first opinion or consultation with regard to a particular specialism (54%), animals referred from private veterinary clinics (4%) and animals originating from the *Sociedad Valencia Protectora de Animales y Plantas* (the Valencian Society for the Protection of Animals and Plants, 42%). (Data from the 2014-15 academic year.)

The HCV-CEU website<sup>33</sup> describes each of the services in detail, also giving details of the corresponding clinical staff. The website also contains a form which can be used for the referral of external clinical cases.

All hospital rooms in which clinical activity is undertaken are installed with integrated clinical management software, called QVet®, which stores the details for the animal and its owner, all information regarding appointments, diagnostic imaging reports and clinical test results.

In addition to this clinical activity, there is also an oncology workgroup and a workgroup for exotic animals which periodically organize activities.

33 https://www.uchceu.es/centros-ceu/hospital-clinico-veterinario

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	Internal Medicine	Internal Medicine					
	Internal Medicine	Internal Medicine	Internal Medicine	Oncology	Internal Medicine	Internal Medicine	
	Surgery	Surgery	Surgery	Surgery	Surgery		
0.00.14.00b	Traumatology and Orthopaedics	Traumatology and Orthopaedics	Traumatology and Orthopaedics	Traumatology and Orthopaedics	Traumatology and Orthopaedics		
9.00-14.00h	Neurology	Ophthalmology	Neurology	Ophthalmology	Neurology		
	Reproduction	Dermatology	Reproduction	Dermatology	Exotic		
	Cardiology	Cardiology	Cardiology	Cardiology	Cardiology		
	Radiology/ ultrasound	Radiology/ ultrasound	Radiology/ ultrasound	Radiology/ ultrasound	Radiology/ ultrasound		
	Anaesthesia	Anaesthesia	Anaesthesia	Anaesthesia	Anaesthesia		
8.00-20.00h	Internal Medicine and Surgery	Internal Medicine and emergency surgery					
24 h/day	Internal Medicine, emergency surgery and hospitalization	Internal Medicine, emergency surgery and hospitalization	Internal Medicine, emergency surgery and hospitalization				

### Table 7.4b: Opening hours of the different clinical services at the HCV-CEU, within the small animal area



### 7.1.10 RATIOS

Table 7.5: Ratio of animals available for clinical training (at the Faculty's clinics or seen at the ambulatory clinic) to the number of students in last full year of clinical training.

Parameter addressed	Indicator (Ratio)		Val	ue
D-111	n° of food-producing animals seen at the Faculty		882	. = 9
RIT	n° of students graduating annually		98	·
R:12	n° of individual food-producing animal consultations outside the Faculty		1016	= 10.37
	nº of students graduating annually		<b>98</b> <sup>2</sup>	
D.10	nº of herd health visits		68	- = 0.69
n.13	n° of students graduating annually		98	
<b>D-1</b> //3	nº. of equine cases		308	- = 3.14
N.17	n°. of students graduating annually		98	
D-151	n°. of poultry/rabbit cases		83	- = 0.85
n.15 <sup>.</sup>	n°. of students graduating annually		98	
D-16	n°. of small animals seen at Faculty		7781	- = 79.4
n.10	n°. of students graduating annually		98	
D-17	n°. of poultry (flocks)/rabbits (production units) seen	_	27	- = 0.27
n.i <i>t</i>	n°. of students graduating annually		98	

<sup>1</sup>The Veterinary School CEU has no on-call ambulatory clinic, due to the low livestock population and number of farm animal veterinary surgeons within the region of Valencia. Instead, students are sent to private ambulatory clinics owned by part-time staff at the Faculty of Veterinary Medicine or external veterinary surgeons. See details in sections 4.1.3.1, 4.1.4, 7.1.8.2 and 7.1.9. These ratios include the clinical activities that students undertake with the animals at our farm (inseminations, semen collection, taking blood samples, pregnancy diagnoses, undertaking cloacal swabs, etc.).

<sup>2</sup>In order to calculate the average, the data from the last five years of the *licenciatura* (the old Bachelor's Degree programme) have been used, as we believe that the size of the first year-group of graduates of the *grado* (the new degree programme) is very small (52) in comparison with those of other years. It is also important to note that the average number of *licenciatura* graduates over the last ten years is 86, in comparison with 98 for the last five: this difference is a result of the phasing out of the old degree programme, leading to an increase in the number of *licenciatura* graduates in the final years.

<sup>3</sup>The number of equine clinical cases seen by students has been calculated by adding together the number of patients seen at the hospital and those for which external visits were made with a part-time staff member.

### Table 7.6: Animals available for necropsy

Parameter addressed	Indicator (Ratio)	Value	
D.10	nº. of necropsies of food-producing animals + equines	204	
n. 10	n°. of students graduating annually	98 =2.08	
	nº. of poultry/rabbit necropsies	484	
R:19	n°. of students graduating annually		
	nº. of necropsies of small animals	266	
R:20	n°. of students graduating annually	98 =2.72	

### 7.1.11 OTHER SPECIES

In recent years, the interest of students (and society in general) in more unusual or less familiar species of animal has increased considerably. The new curricula have been modified to meet these needs. In the 8<sup>th</sup> semester, as part of the subject entitled *Clínica de los Animales de Compañía II* (Small Animal Clinic II), has a section devoted to "new types of pet". For this, students study the major pathologies in different kinds of reptiles, small mammals and birds.

A subject entitled *Gestión de Explotaciones, Sanidad y Producción en Acuicultura y Apicultura* (Farm Management, Healthcare and Production in Aquaculture and Apiculture), in which the main issues regarding production and healthcare in respect of fish and bees are considered.

### 7.2 COMMENTS

Giving the characteristics of the livestock sector in the Region of Valencia, it would be difficult to maintain our own ambulatory clinical service. For this reason, the number of extramural practical sessions involved in the Farm Animal Clinic (9<sup>th</sup> semester) have been increased, improving the range of veterinary services on offer by means of the incorporation of veterinary professionals from those regions in which there is greater activity of this type. In this manner, the requirements for this kind of activity are now well covered.

With regard to the equine service, until the opening of the new facilities at the HCV-CEU, major surgical procedures were carried out at external facilities, as beforehand only field surgery could be carried out. The new facilities will therefore enhance and increase the clinical activities undertaken with this species over the next few years. Currently for this service, groups of three students accompany a part-time member of staff on a daily basis, attending to 4 cases every day on average, reflecting the increase in the number of cases that our students now see over the last few years. In order to meet the clinical needs for this species at the HCV-CEU, extra staff have been taken on, in the form of a clinical veterinary surgeon and two veterinary interns for this service (pending confirmation before the sending of the report). The small animal hospital now boasts a 16 slice CAT scanner, which will boost case referrals and provide diagnostic capacity to internal cases at the HCV-CEU. The substantial improvements made to the hospitalization service will ensure excellence in the care and handling of the animals and thus also the transmission of our overall medical vision to our students. The installation of an MRI scanner for the small animal service is planned for future years.

### 7.3 SUGGESTIONS

The equine caseload seen at the Faculty will increase once the new Equine Hospital equipped with surgical facilities begins operating. Liaison with first opinion equine veterinary surgeons within the Region of Valencia will be paramount in order to increase the number of referral cases.

Valencia is a region with few farms and rural veterinary surgeons, and so it is not practical for the Faculty of Veterinary Medicine to have its own ambulatory clinic, due to the likelihood of a low clinical caseload. We are signing new agreements with private food-producing animal clinics nationwide, in order to increase the opportunities for students to be sent on extramural placements in which they can experience clinical practice with these species.

The construction of the new hospital, with its operating theatres for large animals, CAT scanner, hospitalization and isolation facilities for small animals, will facilitate an increase in the number of referrals from veterinary surgeons in the region. It will also be necessary to stimulate collaboration with these veterinary professionals, by means of the organization of continuing education courses, which will help to raise awareness of the new facilities and services provided.



# CHAPTER 8. LIBRARY AND LEARNING RESOURCES

### 8.1 FACTUAL INFORMATION

# 8.1.1 LIBRARY AND OTHER INFORMATION TECHNOLOGY SERVICES

THE CENTRAL LIBRARY IN NUM	THE CENTRAL LIBRARY IN NUMBERS							
Full time equivalents of part time employees	0.5							
Number of full time employees	15							
Number of veterinary journals received each year as hard copies	142							
Number of full access electronic veterinary journals	12							
Online literature search resources	92 healthcare e-books, 15 healthcare databases and a specific veterinary database.							
Availability of veterinary textbooks	4361 monographs							
Number of student reading places	990							
Library opening hours during term- time	13.5 hours							
Library opening hours during vacations	Open 24 hours during exam periods. Open on certain days during the Christmas period.							

The library<sup>34</sup> is a centralized service for the whole of the CEU-UCH University, forming a functional support unit for teaching, study and research. It is made up of all of the University's bibliographical and documentary holdings. It forms part of the *Red de Bibliotecas de la Fundación Universitaria CEU San Pablo* (CEUNET, the CEU San Pablo University Foundation Library Network), which is based in Madrid.

The library of the CEU-UCH University is spread across three locations: the central library in Alfara del Patriarca, the library in Elche and the library in Castellón. Together, the three buildings have a floor space of 5833 square metres, with more than 1600 study spaces for library users.

The central library in Alfara del Patriarca is the one which is used by Veterinary undergraduates. It has a total surface area of 5000 square metres over three floors, and it has 990 study spaces which are distributed in the following fashion:

 The basement houses the newspaper and journal collections and those holdings to which access is restricted.

- The top floor contains the media section, with forty-six computers, and also further open access reading areas.
- The building also possesses twelve rooms for group work, which students can use, six study rooms for the academic staff and a research common room.

There are fifteen library staff at the UCH-CEU University: the library director, the head librarian, seven assistant librarians and six administrative staff.

The holdings for Veterinary Medicine cover 4508 publications (data from December 2015) and are located in the central library. 1859 items were borrowed by Veterinary users during the 2014-2015 academic year. There are 2010 paper copies of journals held in the library, with 142 of these corresponding to Veterinary Medicine. None of the veterinary holdings are subject to restricted access. Provision is made every year in the budget for the purchase of bibliographical materials. The academic staff request the purchase of materials for the library, which is subject to the approval by their Head of Department.

The library opening hours are suited to educational needs, with the library being open from 07.45-21.15 from Monday to Friday. The library operates a 24-hour service during exam periods (January, June and July). Any changes during the various teaching periods are announced on the website.

The library management system used is the *AmicusLibriSuite* program. The lending service and the cataloguing of the library holdings are managed electronically, as is the management of acquisitions, as of this academic year. The library catalogue, *Vufind*, can be consulted via the internet: this includes monographs, electronic resources, and periodicals, and the electronic journals and databases the university subscribes to.

Some of the services the library offers to users include:

**General Information and User Assistance**, whose main objective to facilitate user access to the bibliographical holdings.

- Inter-library loans, which enables members of the university community to obtain publications which are contained in the University's holdings. This service also provides publications to other libraries upon request.
- Newspaper and journal section, which manages and monitors the University subscriptions to periodicals.
- The media section, which provides users with nonprinted materials and electronic documentation. For this purpose, there are 46 computers to search the internet, or consult databases, CD-ROMs, discs, etc., and 26 of these computers are specifically for the viewing of videos and DVDs.

The ground floor houses the office space for the library staff, the lending counter and some of the open access reading areas. The building also has a conference room (*Salón de Grados*).

<sup>34</sup> https://www.uchceu.es/servicios/biblioteca-crail



### 8.2 COMMENTS

The central library in Alfara is located in a modern building equipped with high-quality scientific and teaching materials, with well-appointed, large and comfortable rooms. The ratio between study spaces and the surface area is appropriate, especially when one takes into account that the University also provides study spaces in each of its buildings.

The 24-hour service during the exam period is a huge boon for the study and consultation of books.

All of the books listed in the core bibliography for each subject of the Bachelor's Degree in Veterinary Medicine are held in the library, being available for consultation and borrowing by the students.

In the first year, the students receive a 4-hour training session from the library staff, entitled "Computer and information skills",

which enables them to make sound use of the sources of bibliographical information.

For the End-of-Degree Project, the students use the library for their review of the literature. Students are able to freely access the journals which the University subscribes to and request from the inter-library loan service (via their tutor) a maximum of 5 articles from scientific journals to which the University is not subscribed.

### 8.3 SUGGESTIONS

An inter-library loan service (servicio de obtención de documentos) exists, which allows documentation not held by the library to be obtained appropriately and quickly. Nevertheless, we intend to increase access to publications and online databases.

# CHAPTER 9. STUDENT ADMISSION AND ENROLMENT

### 9.1 UNDERGRADUATE COURSES

### 9.1.1 UNDERGRADUATE STUDENT NUMBERS

The minimum number of years (MNY) allowed for the successful completion of the veterinary curriculum at CEU-UCH is 5 years.

### **MNY: 5 years**

Table 9.1a: Undergraduate student composition in year prior to visit (2014-15)

	<i>Grado</i> (new degree programme)	<i>Licenciatura</i> (old degree programme)
Total number of undergraduate students	773	150
Total number of male students	198	55
Total number of female students	575	95
Foreign students		
-from EU countries	202	1
-from non-EU countries	6	0

### 9.1.2 STUDENT ADMISSION

### Minimum admission requirements

In order to enrol for the Bachelor's Degree in Veterinary Medicine, students must have successfully obtained the qualification of *Bachiller* or its equivalent (i.e. secondary education up to the age of 18; essentially the equivalent of obtaining three A-levels in the UK), and of having passed the university entrance exam, as is required by Spanish legislation.

In the case of persons above 25 years of age, the requirement consists of passing the university entrance exam. In the case of students who already possess university qualifications, students must provide a duly verified copy of the relevant certificate. If the student began his or her university studies at another veterinary faculty in Spain, at least 30 official ECTS must have been completed in order to request a transfer. If these studies were not veterinary in nature, the student's academic record is examined in order to consider whether any credit transfers are possible. Finally, there is also a further access route for students over 40 years of age who possess work experience which is related to the degree: they are asked to provide evidence of the relationship of this with veterinary studies. In the case of foreign students, in order to enrol at the University, they must have undertaken studies which give access to university studies and have requested that these studies be validated by the Spanish Ministry of Education.

### Limit to the number of students admitted each year.

The number of students admitted to study for the Bachelor's Degree in Veterinary Medicine is set by the University in its annual report. The theoretical limit for admission is set at 120 students. However, in recent years, due to the creation of the linguistic excellence groups and the improvements made to the facilities, the University has deemed it appropriate for this number to be increased. For this reason, a request has been sent to ANECA (the National Agency for Quality Assessment and Accreditation) for the appropriate section of the verified report to be modified in order to increase the annual student intake, as appropriate to the greater teaching capacity now afforded to us by the new facilities and the hiring of the necessary teaching and non-teaching staff.

### Selection process.

The process for admission to the CEU-UCH University is as follows:

1. **Application for admission**. Applications can be made via the website, via post, or by visiting the CEU-UCH's *Oficina de Nuevo Alumno y Promoción Universitaria* (Office for New Students and University Promotion). In general, the admission process begins during the month of February. Once the application for admission has been received, the student is contacted to arrange a personal interview with a member of the degree's academic staff.

2. **Interview.** The aim of the interview is to undertake a personal assessment of the candidate, as well as to present the University's facilities and the degree programme. If the interviewer considers admission of the candidate to be appropriate, then he or she passes the appropriate documentation on to the General Secretary's Office, which will include the grades that the candidate has achieved in his or her previous studies.

3. **Selection.** Once the interview has been undertaken, the next steps in the selection process depend on the language group the candidate requires. Candidates requesting admission to the French group are selected after the review of their academic record. In the case of candidates applying for entry into the English and Spanish groups, these are admitted on a first-come, first-served basis, while taking into account their academic record. Furthermore, current legislation requires that university applicants have passed the university entrance exam, and, therefore, registration can only be completed after this requirement has been met.

Applicants for the French or English linguistic excellence groups must demonstrate that their knowledge of the language in question is at least equivalent to a B1 level: they can provide documentary evidence of this or they must pass a level test. Furthermore, in order to begin the third year of study (in which teaching is undertaken in Spanish only), students must demonstrate an appropriate knowledge of Spanish, equivalent to a B1 level, either by means of documentary evidence or by passing an appropriate level test.



# Students' basic scientific knowledge from their previous studies

Most students have already passed through standardized education systems, but, despite the fact they should all have similar knowledge before beginning the degree, some students may display deficiencies in certain basic subjects. When such deficiencies are detected, the lecturers of the corresponding subjects undertake tutoring sessions and monitor the progress of these students more closely. In the French and English linguistic excellence groups, a significant percentage of students have previous university studies, and thus possess a strong grounding in core materials.

# Circumstances under which extra students may be admitted to the undergraduate degree programme

As a result of exchange programmes, some students study at the Faculty on a temporary basis (Table 9.1.b). The intake of these students is partly balanced by those temporarily studying at other veterinary faculties. The exchange programs for students are:

a) Erasmus: for EU students

b) SICUE: for Spanish students.

### Table 9.1b: Student exchanges with other establishments.

		Inco	ming			Outo	going	
	11-12	12-13	13-14	14-15	11-12	12-13	13-14	14-15
Erasmus Studies	1	5	8	2	5	0	2	3
Erasmus practicum		6	6	3			17	17
Seneca	6	6	2	2	0	1	1	2

# How the number of government-funded student places is determined

There is no set number of government-funded places at the CEU-UCH; rather, the Spanish Ministry of Education offers an overall number of grants which all university students in Spain can apply for. Awards are based on the financial situation of the applicant's family, if he or she also meets the minimum academic standards. There is, therefore, no prior allocation of grants to a particular university or area of study.

#### Changes in the number of students admitted annually.

A request has been sent to ANECA to increase student intake. To deal with this increase and provide appropriate teaching, the Faculty now has the new HCV-CEU and has increased the number of teaching and non-teaching staff. Table 9.2 shows the number of students admitted to the Faculty of Veterinary Medicine, including those transferred from other faculties, of whom there is a very low number.

Table 9.2:	Intake of	veterinary	students	over	the	past	five
/ears							

					r admitte	ed	
Year	Numbe ac	Number applying for admission			dard' inti	Other entry mode (Transfers) <sup>1</sup>	
	Spanish	French	English	Spanish	French	English	
2014-15*	233	290	82	153	62	35	4
2013-14	303	95	167	164	52		3
2012-13	244	22	137	134	9		3
2011-12	265	-		154	-		2
2010-11	226	-		125	-		2
Average	254	136	129	146	41	35	3

\*year prior to evaluation

<sup>1</sup>Student transfers from other veterinary faculties

### 9.1.3 STUDENT FLOW

### Table 9.3: Student flow and total number of undergraduateveterinary students

Number of students present after admitted year 1		Number of additionally admitted students <sup>2</sup>
Students admitted in 2014-15	257	4
Students admitted in 2013-14	188	3
Students admitted in 2012-13	110	3
Students admitted in 2011-12	115	2
Students admitted in 2010-11	88	2
Students admitted in 2009-10	49¹	1
Students admitted in 2008-09 or before	98¹	2
Number undergraduate veterinary students	905	17

<sup>1</sup> Students following the old curriculum (*licenciatura*)

<sup>2</sup> Transfers from other faculties

# Table 9.4: Number of students graduating annually over the past five years

Year	Number graduating
2014-15	52 ( <i>grado</i> , new curriculum) + 110 ( <i>licenciatura</i> , old curriculum)
2013-14	87
2012-13	101
2011-12	80
2010-11	113
Average	98*

\*This table includes data from students following the old curriculum, the *licenciatura*, and the new one, the *grado*. In order to calculate the average value, only the *licenciatura* data from the last five years have been used, as we believe that the number of graduates in the first year-group of *grado* graduates to be very small (52) in comparison with those of other years. The average number of *licenciatura* graduates over the last 10 years is 86, in comparison with 98 over the last five; this difference is a result of the phasing out of the old degree programme, leading to an increase in the number of *licenciatura* graduates in the final years.

### Table 9.5: Average duration of studies (distribution of students in years)\*

Duration of attendance (for students graduating in 2013/2014 = 87)	Number (percentage)
Year 0 = students completing their studies in 5 years	29 (33%)
Year 1 = students completing their studies in 6 years	24 (28%)
Year 2 = students completing their studies in 7 years	10 (11%)
Year 3 = students completing their studies in 8 years	8 (9%)
Year 4 = students completing their studies in 9 years	6 (7%)
Year 5 = students completing their studies in 10 years	5 (6%)
Year >5 = students completing their studies in 11 years or more	5 (6%)

\*This table includes data from students following the old curriculum, the *licenciatura*, who graduated in 2013/2014, as those who graduated in 2014/2015 had all taken at least six years to complete their studies. Data from students following the new curriculum, the *grado*, have not been included, as only five years have passed since the new curriculum was implemented, and therefore the average length of studies cannot be observed.

# Requirements (in terms of completing subjects and examinations) for progressing onto a subsequent year of the degree.

First-year students can only continue with their studies if they pass 50% of the credits of the first year (30 ECTS). For later years (2<sup>nd</sup> and onwards) students can register for the following year even if they have not passed all of the subjects they had registered for. However, in order to ensure that students do not register for an excessive number of subjects, a maximum number of credits a student can be registered for in an academic year has been set: the total number of credits for

highest year registered for, plus a further 18 credits. In order to register for a greater number of credits, students may, exceptionally, register for a greater number of credits with the express authorization of the Vice-Dean's Office of the degree in question or the Academic Secretary of the Faculty. In any case, registration for each new academic year will necessarily include the registration for those subjects remaining from previous academic years.

# Academic circumstances under which the establishment would oblige students to leave the degree

The **Normativas de Permanencia y Condiciones de Matrícula** (Internal Regulations and Registration Conditions) for Bachelor's Degrees at the University were described in section 5.1.3.3

### 9.2 COMMENTS

### Standard of students starting the degree

The capabilities of the student intake are good overall. It is important to note that for the selection for the English and Spanish groups, the mark from the university entrance exam is not taken into account, but it is compulsory to pass this exam. The university's internal regulations require students to pass 50% of the ECTS in their first year, with this serving as filter for those students who are unable to reach a satisfactory level of academic achievement. This requirement results in almost 10% of first year students of each year group being unable to continue their studies at the Faculty of Veterinary Medicine the following academic year.

### Ability of the Faculty to satisfactorily decide the number of students it can accept. Comment on the factors that determine the number of students admitted.

The total number of students admitted is mainly based on our capacity to teach them to a satisfactory standard, based on the available infrastructure and staff numbers. The University determines the number of places on an annual basis. In 2015-2016, a request has been sent to ANECA to increase the student intake, given the greater teaching capacity afforded to us by our new facilities and the planned hiring of the necessary new teaching and non-teaching staff.

# Adequacy of the facilities and teaching programme to train the existing number of students

Currently, the Faculty facilities are sufficient for the teaching of the students registered. With the new HCV-CEU facilities, we will be able to appropriately educate the planned student intake. It is important to note that the Faculty facilities are of recent construction and are perfectly maintained. The lecture halls and seminar rooms are five years old and possess highquality audiovisual equipment (digital whiteboards, projectors, etc.). Moreover, the Teaching and Research Farm possesses sufficient animals, which are looked after at appropriate levels of comfort, for the assessed practical sessions to take place in the clinical and animal production subjects. Finally, the new HCV-CEU will enable the clinical and pre-clinical practical sessions to be carried out in modern and suitable facilities.



# Progress made by students in their studies, and the Faculty's ability to ensure that satisfactory progress is maintained

The progress made by our students over the various academic years can be said to be very good, in general, although it must be said that, with the old curriculum, there were some subjects that a significant number of students found difficult to pass, leading to some students having to repeat various subjects from earlier years. The implementation of the new curriculum has largely resolved this problem. Currently, the greatest number of difficulties occur in the first year, which is to be expected, as to an extent the first year acts as a filter, as the worst-performing students, unable to meet the requirements of the first year, are expelled from the degree. In order to provide these students with all the resources they need to succeed, the lecturers of first-year subjects with poor-performing students (mainly in Structure and Function) arrange group and individual tutoring sessions. Furthermore, each semester the academic staff teaching each year-group meet in the form of Assessment Boards in order to analyse the results, detect problems in particular subjects or particular groups of students, and take steps to resolve these. Constant contact is maintained with the students, increasing the number of tutoring sessions if necessary and clearly communicating the assessment criteria, enabling the student to better focus their efforts when studying.

The drop-out rate is low. A small percentage leave the University due to the high cost of their studies in comparison with those at the state-run universities. Also, there are those students who are unable to achieve a minimum number of credits in the first year and so are unable to continue with their degree studies. The number of these students, which is also low, is not a cause for concern as these are low-performing students and their continued presence on the degree would represent a hindrance to the academic progress of their fellow students.

### Percentage of students that will eventually graduate

According to the *Conferencia Española de Decanos de Veterinaria* (Spanish Conference of Deans of Veterinary Faculties), students take an average of 6.8 years to complete their studies, which is very close to that the average for our students (an average of 6.5 years for students undertaking the *licenciatura*, or old curriculum, over the last seven years).

### 9.3 SUGGESTIONS

The efforts made by the University, with regard to new facilities, the hiring of new staff, and internal re-organization, has enabled the student intake to be increased, while maintaining levels of teaching quality. Nevertheless, it would be desirable to carry out an annual analysis of the student intake, in order to make sure that it corresponds with the social and professional landscape.

With regard to the duration of the studies of our undergraduates, it would be desirable for this to be increased by another 30 ECTS (half an academic year). This has been proposed by the Spanish Conference of Deans of Veterinary Faculties to the Ministry of Education.

# CHAPTER 10. ACADEMIC AND SUPPORT STAFF

### **10.1 FACTUAL INFORMATION**

Table 10.1: Staff devoted to veterinary teaching (average of the last 3 years of teaching)

	Budget (F	geted posts Non-budgeted (FTE) posts (FTE)		Total (FTE)		
1. Academic staff <sup>1</sup>	VS <sup>2</sup>	NVS <sup>3</sup>	VS	NVS	VS	NVS
Teaching staff (total FTE)	73.21	17.97	0.00	0.00	73.21	17.97
Research staff (total FTE) Others (FTE)	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00
Total FTE	73.21	17.97	0.00	0.00	73.21	17.97
Total FTE (VS+ NVS)	9	1.18		0.00	91.	18
FTE providing last year teaching					105.78	
2. Support staff						
Responsible for the care and treatment of animals		2.00		2.50	4.50	
Responsible for the preparation of practical and clinical teaching	4	.534		0.00	4.	53
Responsible for administration, general services, maintenance, etc.	3	8.85	1	10.45	49.3	
Engaged in research work		1.00	0.00		1.0	00
Others		0.00	0.00		0.00	
Total support staff	4	6.38	12.95		59.3	
3. Total staff	13	7.56	1	2.95	150	).5

<sup>1</sup>The number of academic staff hired for the teaching of the Practicum has not been included in these tables. In 2014-15 the number of hours allocated to external teaching staff to undertake this task amounted to 11,800 hours.

 $^{2}$  VS = veterinary surgeons  $^{3}$  NVS = not veterinary surgeons

Table 10.2: Allocation of academic teaching staff (whether veterinary surgeons or not) – expressed as FTE

Department	Full professor		Associate prof.		Assistant prof.		Collaborating Lecturer		Part-time lecturer	
name'	VS	NVS	VS	NVS	VS	NVS	VS	NVS	VS	NVS
PASAPTA	1	-	3.66	2	5.66	2	2.66	-	14.99	5.48
МуСА	-	-	5.66	-	8.33	-	2.66	0.33	27.56	0.34
F	-	0.08	-	2.08	-	0.18	-	0.22	0.39	1.19
СВ	-	-	-	1.10	0.60	0.20	-	0.64	0.04	1.06
CFM	-	-	-	0.17	-	0.07	-	0.07	-	-
Other	-	-	-	0.05	-	0.27	-	0.24	-	0.20

<sup>1</sup>PASAPTA: Department of Animal Production and Health, Public Veterinary Health and the Food Science and Technology; MyCA: Department of Animal Medicine and Surgery; F: Department of Pharmacy; CB: Department of Biomedical Science; CFM: Department of Physical Sciences, Maths and Computing; Other: Department of Political Science, Ethics and Sociology, Department of Humanities, Department of Civil Engineering and Industrial Production, Department of Audiovisual Communication, Advertising and Information Technology.

The University support staff are not allocated to individual departments.









R1 -	Nº undergraduate Veterinary students		832		
	N° total academic FTE for Veterinary Medicine		91.18	= 9.12	
DO	N° undergraduate Veterinary students	_	832	- 11.00	
R3 -	N° VS FTE for Veterinary Medicine	=	73.21	= 11.30	
R4 -	N° students graduating annually		98	1.04	
	N° VS FTE for Veterinary Medicine	- =	73.21	= 1.34	
_	N° total FTE support staff for Veterinary Medicine	_	59.3		
R5	N° total FTE academic staff for Veterinary Medicine	_	91.18	= 0.65	

Table 10.3 **Student/staff ratios** (average of the last 3 years of teaching)

### Allocation and recruitment of teaching staff

The Vice-Dean sets the number of groups for the various academic activities based on the number of students. The Heads of Department are responsible for drawing up the Teaching Organization Plan (*Plan de Ordenación Docente*, POD), and, if the teaching demands require it, they request new teaching staff from the Dean. The Dean's Office passes the final requests to the Office of the Vice-Rector for Academic Affairs and Academic Staff, which is responsible for the creation of new posts.

The academic staff are classified into five major categories, awarded by means of the University's System for the Promotion and Payment of the Academic Staff: *Catedrático* (Full professor), *Profesor Agregado* (Associate professor), *Profesor Adjunto* (Assistant professor), *Profesor Colaborador* (Collaborating lecturer) and *Profesor Asociado* (Part-time lecturer). A PhD is required to access the first three categories, whereas it is only optional for the last two.

Vacancies are advertised on the University's website (CEU vacancies). <sup>35</sup> The requirements for vacancies are described with each offer, with requirements including holding a doctorate, experience of teaching, research and professional practice, knowledge of languages, and others. In order to teach the linguistic excellence groups, a C1 level in the vehicular language is required (as measured by the CEFR, or Common European Framework for Languages). The candidates are interviewed first of all by the Deans, Heads of Department and the Vice-Rector of Academic Affairs. A second interview is then carried out by the Human Resources Department. The candidates are selected on the basis of these interviews.

In addition, the Heads of Department and the Dean's Office can request the conversion of part-time academic posts to fulltime positions.

According to the type of vacancy advertised, the University may occasionally have difficulty in identifying candidates who meet all of the requirements. Reasons for this may include the request for a very specific profile or high-level language skills.

The attrition rate for academic staff at the Faculty has slowed in recent years. Factors contributing to this include: the consolidation of the degree programme, the implementation of career development for the teaching staff and the reduction in number of competitive job offers due to the poor state of the economy.

### Allocation and recruitment of support staff

The Dean's Office sends requests for the support staff positions required for the degree programme to the University's Chief Executive. The decision on whether to grant such requests is taken by the Chief Executive after analysing the justification provided for this.

#### Workforce reductions

As was explained in section 3.1, the CEU San Pablo University Foundation (FUSP-CEU) manages the budgets and takes the appropriate decisions with regard to the distribution of these.

Workforce reductions are carried out in accordance with the *XIII Convenio colectivo de ámbito estatal para los centros de educación universitaria e investigación* (13<sup>th</sup> National Collective Agreement for Universities and Research Centres) and the service responsible for implementing these is the Human Resources Department, with the support of the works council.

### **Research meetings and sabbaticals**

**Attending research meetings:** the academic staff can apply for grants to support their research activities. These grants are allocated on the basis of the number of publications which appear in the highest quartile in the relevant category of the JCR index, the award of projects at a regional or national level, patents, etc. For example, the possession of a *sexenio vivo de investigación* (5 indexed publications over the previous six years) enables the academic staff member to access a grant for attendance at a national research meeting.

**Taking sabbatical leave:** Only those members of the academic staff who meet the criteria set by the University may be awarded a year's sabbatical leave. Shorter periods for carrying out research may also be awarded (from 1 to 6 months), as long as teaching commitments can be met. The academic staff can receive financial awards for these periods from public sources, from the ERASMUS scheme, or from sponsorship from the Santander bank. By means of a collaboration agreement between this bank and CEU, the mobility of the teaching and research staff is supported with financial awards for research visits. These grants for research mobility, entitled *Ayudas a la Movilidad Investigadora CEU-Banco Santander*, have three main objectives: to ensure that the academic staff's knowledge and skills are fully up-to-date, to promote excellence amongst the research groups of which the recipients form part, and to

<sup>35</sup> http://ceu.cvtools.com/jefam/site/es/microsite-2323



contribute to the University's internationalization strategy, by generating synergies with other university research groups and centres of excellence in research. The grants are awarded on the basis of the assessment of research projects, the quality of the external institutions and the applicant's CV.

### **10.2 COMMENTS**

The undergraduate student/FTE academic staff ratio (R1) is above the maximum levels set by the EAEVE. The last three academic years evaluated have contained students from the old and new curricula. In order to gradually close the different academic years of the old curriculum, students were allowed to register for a subject which had already been scrapped for one more year. These students had the right to take the corresponding exam but not to teaching, which has a negative impact upon this ratio. If one only considers the academic staff teaching the new curriculum and the students registered for the new curriculum, then the R1 ratio decreases to 8.8 and for 2014-15 the ratio comes in at 7.99, below the maximum levels set by the EAEVE. Furthermore, it is worth noting that the hours allocated to external staff for the teaching of the Practicum are not included in the tables (in 2014-15 these amounted to 11,800 hours). The Faculty management and the Office of the Vice-Rector for Academic affairs and Academic Staff are aware of the need to reduce this ratio. Evidence of this can be seen in the hiring of new academic staff for the 2015-2016, and the approval by all stakeholders of the Teaching Organization Plan (POD) for the 2016-2017 academic year, which entails a further increase in the full-time academic staff.

The undergraduate student/VS FTE ratio (R3) also improved in the 2014-15 academic year (10.84) in comparison with the three-year average (11.36). This ratio will continue to decrease as the increase in registered students over the past three years will require the hiring of further veterinary surgeons to teach on  $3^{rd}$ , 4<sup>th</sup> and 5<sup>th</sup> year subjects. It is also important to note that the proportion of VS FTE to the total academic staff has always been over 70% over the last three-year period evaluated (2012/13: 82%; 2013/14: 78%; 2014/15: 80%).

The three-year average of the FTE support staff / FTE academic staff (R5) ratio is also in the range set by the EAEVE (0.64). With the opening of the new clinical veterinary hospital, more support staff will be hired, and so this ratio will also improve.

### **10.3 SUGGESTIONS**

The University will continue to increase the size of the academic staff, so that staffing levels fit with the number of students, enabling R1 to improve. This increase in hiring must ensure that the proportion of veterinary to non-veterinary staff is maintained, which currently lies at 4.07.

For the 2016-17 academic year, new support staff for the hospital, laboratories and other services will be hired.



# CHAPTER 11. CONTINUING EDUCATION

### **11.1 FACTUAL INFORMATION**

The Faculty organizes courses of different types depending who the target audience for them is (undergraduates, recent veterinary graduates, specialists, etc.). Annex 5 provides a summary of the 24 courses organized by the Faculty during 2014-15. For the organization of courses such as these, high quality external professionals who work with the Faculty on an occasional basis are contacted. It is also worth noting that the Faculty's own academic staff teach on external courses organized by the professional association of veterinary surgeons in Valencia, the *Ilustre Colegio de Veterinarios de Valencia*, public bodies, private enterprises and other professional associations.

The Master's Degree in Food Safety (*Máster Universitario en Seguridad Alimentaria*) is half classroom-based and half distance learning-based; it consists of 60 ECTS and lasts for one year. It is officially recognised by ANECA. It is aimed at professionals already in the food industry and related government agencies, and those who wish to develop their career in this area. The objective is to train professionals in the undertaking of a rational assessment of the problems which occur in the area of food safety, thus being able to form part of teams at public and private companies, to perform research, prevention, detection, assessment, and communication activities, and to take decisions in respect of food safety (Table 12.3).

In 2014-15, the biannual course entitled "Certificate in Small Animal Surgery" was also taught (Table 12.3).

### 11.2 COMMENTS

The courses, special lectures and other training activities provided by the Faculty of Veterinary Medicine combine the experience of the University's academic staff with contributions from external academic staff working at other universities in Spain and across the world and from professionals from private enterprise. The courses provided concern the practically the entire range of veterinary activities and they represent an excellent opportunity to establish links with veterinary surgeons from the region and across Spain. Course evaluation surveys demonstrate the quality of these courses is good, and participation is also high.

### **11.3 SUGGESTIONS**

The University must encourage the establishment of new postgraduate courses. In 2015-16, a new course was taught, entitled *Título Propio de Experto en Diagnóstico por Imagen* (Certificate in Diagnostic Imaging) which runs on an annual basis, and two more courses have been proposed for the 2016-17 academic year: *Título Propio de Traumatología en Pequeños Animales* (Certificate in Traumatology in Small Animals) and *Título Propio de Cirugía en Tejidos Blandos en Pequeños Animales* (Certificate in Soft Tissue Surgery in Small Animals).

Currently, most of the courses run by the Faculty of Veterinary Medicine result from the personal initiative of a particular member of the academic staff, or a group of them, or from agreements with external companies. The organization of courses such as these must be encouraged while taking into account the demands they place on the academic staff in terms of time and effort. For this reason, it would be desirable to facilitate the organizational management of these courses and for these activities to receive greater academic recognition from the University and the agencies which assess teaching quality in higher education.





# Máster Universitario

SEGURIDAD ALIMENTARIA

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# CHAPTER 12. POSTGRADUATE EDUCATION

### **12.1 FACTUAL INFORMATION**

# 12.1.1 TRAINING IN CLINICAL SPECIALISMS (INTERNS AND RESIDENTS)

### Table 12.1: Training in clinical specialisms

Clinical discipline	N° interns	N° residents	Diploma or qualification to be awarded
Small Animal Medicine and Surgery	7	0	Internal certificate of attendance and completion of internship

The candidates in the internship program (one year in duration) must have a degree in Veterinary Medicine and less than two years' professional experience. They are employed by the Faculty of Veterinary Medicine (CEU-UCH University) and therefore have a salary and are entitled to holiday pay and sick leave.

The interns are supervised by academic staff and clinical staff from the HCV-CEU. There are no European or American boardcertified veterinary specialism training programmes currently being undertaken at the CEU-UCH Faculty of Veterinary Medicine.

### 12.1.2 RESEARCH-BASED PROGRAMMES

Table 12.2: Number of research students enrolled on different programmes during the 2014-15 academic year

Type of degree	Full-time	Part-time	Duration
PhD	3	25	4 years
Other doctoral level <sup>1)</sup>			

<sup>1)</sup> please specify

Of the 28 PhD students, three receive a salary: two from the CEU-UCH, and the other is funded by a government research project awarded to the Principal Investigator (the PhD supervisor). The other 25 PhD students have no salary.

### 12.1.3 TAUGHT POSTGRADUATE COURSES

# Table 12.3: Number of postgraduate students enrolled on different programmes during the 2014-15 academic year

Type of degree	Name of qualification	Part-time students	Duration
MSc (Master of Science)	Food Safety	23	1 year (60 ECTS)
Other courses	Certificate in Small Animal Surgery	16	14 months

This MSc in Food Safety is taught on a part-time basis only. The theoretical part of the course (19 ECTS) is taught by distance learning.



### **12.2 COMMENTS**

The number of PhDs awarded annually at the CEU-UCH within the two departments of the Faculty of Veterinary Medicine, Animal Medicine and Surgery, on the one hand, and Animal Health and Production, Public Health and Food Technology, on the other over the last 4 years is shown in Table 12.4

Table 12.4: The number of postgraduate diplomas/ qualifications awarded annually.

Diploma/title	2014-15	2013-14	2012-13	2011-12
PhD	9	1	4	5

All candidates participating in the clinical internship at the HCV-CEU must hold a veterinary degree. For the research programmes the candidates must hold a veterinary degree or an equivalent degree (a *licenciatura* or *grado* in science, i.e. a BSc). Most PhD students are enrolled on the doctoral programme as part-time students with no salary. Only a few

students have a salary funded by the CEU-UCH, private companies or the regional/national government (3-4 years of funding).

### **12.3 SUGGESTIONS**

Currently, the Faculty does not have any ECVBS residency programmes. The recommendation would be for more European or American board-certified veterinary staff to be hired, so that specialist clinical residencies can be offered to the right applicants.

The Pathology research group, which has a large number of experienced pathologists, including a Diplomate of the American College of Veterinary Pathology, has initiated the process for the accreditation of the Faculty as a recognized centre for the training of Specialized Veterinary Pathologists (Clinical Residencies in Veterinary Pathology), within the programme of the European College of Veterinary Pathology.



### **CHAPTER 13. RESEARCH**

### **13.1 FACTUAL INFORMATION**

Student involvement in research activities is achieved in various different ways over the course of the five years of the degree programme. On the one hand, there are some research activities which are compulsory for all students studying Veterinary Medicine, yet there are also other activities which students can volunteer for.

### 1. Compulsory activities for all students

The subject entitled "Veterinary biostatistics and scientific method" is a compulsory part of the first semester of the Bachelor's Degree and this allows the students to acquire the basic research skills they need from the very beginning. This subject is worth 6 ECTS, half of which correspond to the "scientific method" section, whose aim is "to provide the students with basic notions regarding the scientific method and to stress its importance for the correct performance of professional veterinary practice." At lectures and workshops, the students learn about scientific knowledge and why it is important for a veterinary surgeon. By studying this subject, students learn how scientific knowledge is produced, stored, searched for and communicated to others.

Time used: 3 ECTS (30 hours of class time, involving different types of class).

- Percentage of students participating: 100%.
- Outcome required: the achievement of a pass in the corresponding examination and the continuous assessment.
- As well as the above, the first-year students also study the 6 ECTS, compulsory first-semester subject entitled "Introduction to Veterinary Science", and one of the activities for this subject aims to highlight the role veterinary surgeons can play in research, with two hours of lecture time being used to explain this. The students are also divided into groups of 3-4 and they must complete a research-related assignment. Sometimes this concerns the presentation of the content of a research article to their classmates, generally one published by one of the University's research groups; or the groups may have to present the result of a search they have made for scientific information; or they may have to explain the research areas of a particular research group on the basis of their publications.
- Total time used by the students: 5 hours of classroom time
- Percentage of students participating: 100%.
- Outcome required: presentation of their assignment.

The "End-of-Degree Project" (TFG) is a 6 ECTS, compulsory 10<sup>th</sup> semester subject, for which students must undertake, on their own, a project focused on one of the research areas suggested by the Faculty. This project, supervised by a member of the academic staff, may consist of a literature

review of a particular area of interest or it may be experimental in nature. In some cases (see the next section) the TFGs of some students have formed the basis of subsequent scientific publications authored by the student.

Time used: 6 ECTS.

- Percentage of students participating: 100%
- Outcome required: these projects are supervised by a tutor, who must ultimately approve its presentation before the assessment panel. The student must submit a written report, which will then be subject to a viva before a panel which will assess the project's quality.

### 2. Voluntary activities open to all students

- *Proyectos Investigación+Docencia*. In recent years, the University's Office of the Vice-Rector of Research has organized two editions of the programme entitled *Proyectos Investigación+Docencia* (Research and Teaching Projects), whose objective is to encourage the creation of research projects in which students are actively involved. The University's academic staff apply for the programme, indicating the number of students who will participate in their projects and explaining their role within it. In 2013-14, two such projects were undertaken by the Faculty's academic staff, with a further such project in 2014-15. These projects concerned parasitology (in 2013-14, with 11 student participants) and animal health (pathology in aquatic animals, 10 student participants in 2013-14 and 7 in 2014-15).
- Collaboration grants. The Spanish Government awards collaboration grants every year to students in the final years of their degrees who wish to form part of research groups. The aim to encourage university students who are close to finishing their undergraduate degree to take their first steps in research activity. Those who receive an award work for an average of three hours a day over eight months. In the last two years, two students have been awarded one of these grants, both of them at the PASAPTA Department (Department of Animal Production and Health, Public Veterinary Health and the Food Science and Technology).
- International Student Congress. The CEU CEU Cardenal Herrera University has organized the Congreso Internacional de Estudiantes (International Student Congress) every year for the last 13 years, in which the Faculty of Veterinary Medicine has had much involvement: in fact, it was from the Faculty of Veterinary Medicine that this initiative first emerged, with the event originally being entitled the Congreso Internacional de Ciencias Experimentales y de la Salud (International Congress for Experimental and Health Sciences). At this congress, students of various degrees, many of them studying Veterinary Medicine, give presentations concerning research they have undertaken under the supervision of Faculty staff. Participation by students from the Faculty of Veterinary Medicine has always been considerable: veterinary students undertook 40 presentations at the 9th edition of the Congress (in 2012), 35 at the 10<sup>th</sup> edition, and 30 at the 11<sup>th</sup> edition.

Attendance at research dissemination activities organized by the University. The University organizes a variety of research dissemination activities which are open to Veterinary Medicine students. This includes sessions of the Journal Club, which are usually led by doctoral students or lecturers, but they are also sometimes led by students in the later years of their undergraduate degree. Furthermore, the CEU-Descubre sessions consist of special lectures given by guest lecturers; these are undertaken periodically and veterinary students and those from other degree programmes are free to attend these events.

### **13.2 COMMENTS**

At the Faculty of Veterinary Medicine there are **12 research groups** working in the following areas (Annex 7):

- Advances in anaesthesia, analgesia, and monitoring
- Veterinary diagnostic imaging
- Endocrinology, immunology and reproductive physiopathology in ruminants and equine animals
- Experimental and applied veterinary surgery
- Animal production
- Improvement in food safety in the productive system and derived products
- Veterinary clinical ophthalmology
- Parasitology and parasitic diseases
- Pathology and animal health
- Food safety in meat products:
  - Ethology and Animal Welfare Section
  - Development and Cancer (interfaculty group, with members from the Health Sciences Faculty).

Furthermore, in 2012 the **Cátedra Fundación García Cugat** (Chair of the García Cugat Foundation) was established for biomedical research. Its aim is to stimulate interdisciplinary research in the area of regenerative medicine. It consists of a research group made up of professionals working in the areas of human and animal health and, with the support of the Fundación García Cugat, they have been undertaking research activities in collaboration with academic staff at the CEU-UCH Faculty of Veterinary Medicine for the last 10 years.

Students can join these groups when they begin their studies. Some examples of active student participation in research groups in recent years are given below:

- In the Parasitology and Parasitic Diseases group, 11 students participated in the *Proyectos de Investigación* + *Docencia*.
- In the Pathology and Animal Health group, 17 students participated in the *Proyectos de Investigación+Docencia*. In this group, undergraduates have appeared as coauthors of research published in major journals. In recent years, two students were co-authors of an article published in a Spanish journal (Monfort et al., 2014, Cunicultura, 39, n° 228) and another student was co-author of an article in an international journal (Ortega et al., 2014 Journal of Fish Diseases 37: 591-595).
- In the Endocrinology, Immunology and Reproductive Physiopathology group, four students actively participated as research assistants during 2013-2014 (Martínez-Bovi and Cuervo-Arango 2014, Equine Vet J. 2014, doi: 10.1111/evj.12396 and Martínez-Bovi and Cuervo-Arango 2016, Reprod Dom Anim, doi: 10.1111/rda. 12683). This same group awarded two collaboration grants to students in the summer of 2015. One of the students selected undertook her End-of-Degree Project with this group, ultimately leading to a publication of which this student appears as the second author (Cuervo-Arango J. et al. 2015, Theriogenology, doi: 10.1016/j).
- The Improvement in Food Safety in the Productive System and Derived Products group has had 10 undergraduate student collaborators since its inception in 2011. The majority of them are now working in this area of industry. During this period, two students have been co-authors of two high-impact articles published in the journal PLOS ONE (Marín et al., 2013 & 2014), and all of them have appeared as co-authors of three outreach articles, and papers given at two international conferences and five Spanish conferences of significant standing within the industry, along with 18 presentations at the international student congress.

### **13.3 SUGGESTIONS**

Students who wish to take part in research may do so by means of any of the activities described in section 13.1, which take place every year. We continue to encourage and motivate students to participate in these activities in order to increase student involvement in research.


# ANNEXES

Faculty of Veterinary Medicine



Self-Evaluation Report One

(SER 1)





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# ANNEX 1: ORGANIZATION

- BOARD OF TRUSTEES
- GOVERNING COUNCIL
- FACULTIES AND DEPARTMENTS
- GENERAL SERVICES

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International Relations Office	Ricardo Meri de la Maza

## **ANNEX 2: COMMISSION MEMBERS**

#### Advisory Commission (Comisión Consultiva)

#### MEMBERS:

. . . . . . . . .

Manuel Escolano Puig. Director General of Public Health for the Generalitat Valenciana (the regional government).

Óscar González Gutiérrez Solana. Deputy Director General of Foreign Health, Ministry of Health.

Vicente Granel Ivorra. Head of the Livestock Service, Department of Agriculture, Fishing and Food (Generalitat Valenciana).

Pablo Areito Toledo. Biological Director of the Oceanogràfic in Valencia

Ernesto Gómez Blasco. Director of the Centro de Investigación y Tecnología Animal (CITA-IVIA, Animal Research and Technology Centre) in Segorbe.

Manuel Lainez Andrés. Director General of Animal Research and Technology at the Generalitat Valenciana

José I. Barragán Cos. President of AECA, the Spanish Poultry Science Association), the Spanish affiliate of the WPSA.

Rafael Mendieta Fiter. Former President of AVEPA (Association of Spanish Veterianry Surgeons Specialising in Small Animals).

Juan José Badiola Díez. President of the *Consejo General de Colegios Veterinarios de España* (General Council of Veterinary Associations in Spain).

Rosendo Sanz Bou. President of the *Consell de Col.legis Veterinaris de la Comunitat Valenciana* (Council of Veterinary Associations in the Region of Valencia) and of the Ilustre Colegio Oficial de Veterinarios de Valencia (The Association of Veterinary Surgeons in Valencia).

José Manuel Sánchez-Vizcaíno Rodríguez. Former President of ANAPORC (National Pig-Farming Association).

Luis M. Cebrián Yagüe. President of ANEMBE (National Association of Bovine Medicine Specialists in Spain).

Mariano Domingo Álvarez. President of AVEDILA (Association of Spanish Veterinary Surgeons Specializing in Laboratory Diagnoses).

Mariano Herrera García. President of SEOC (Spanish Society for Sheep and Goat Farming).

Carlos Escribano Mora. Director General for Livestock at the Ministry of the Environment and Rural and Marine Affairs

**Bachelor's Degree Commission** (Comisión de Grado)

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Heads of Department: Milagros Mateos Otero y José Terrado Vicente

Mobility Co-ordinator: Lorena Mocé Cervera

**Director of the Teaching and Research Farm:** M<sup>a</sup> Dolores Soler Sanchis

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University Architect: Francisco Esquembre Casañ

Head of Laboratories: Jose Antonio García Bautista

Lecturer: Joaquín Ortega Porcel

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Mª Carmen López Mendoza

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General Student Representative

**Commission for the Renewal of Accreditation of the Master's Degree in Food Safety** (Comisión de renovación de la Acreditación del Master de Seguridad Alimentaria)

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#### **ANNEX 3: INDIVIDUAL POSTS**

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Head of the Department of Animal Medicine and Surgery: Mónica Rubio Zaragoza

Departmental Secretary: María del Mar López Murcia

Head of the Department of Producti<sup>o</sup>on and Animal Health, Public Veterinary Health and Food Science and Technology: Carmen López Mendoza

Departmental Secretary: Mª Dolores Soler Sanchis

These posts are described in section 2.1.3

Academic Staff Representative: Juan Manuel Corpa Arenas. Representative for all academic staff on the Faculty Board.

**Director of the Teaching and Research Farm:** Paula Martínez Ros. Responsible for the management and running of the farm.

**Director of the Hospital Clínico Veterinario (HCV-CEU):** Mireia García Roselló. Responsible for the management and running of the hospital.

**Director of Equine Clinical Service:** Rosana Domingo Ortiz. Responsible for the management and running of the Equine Clinical Service.

**Co-ordinator of the Bilingual Groups:** Christelle de Brito. Responsible for the proper functioning of academic activities in the linguistic excellence groups.

Undergraduate year-group co-ordinators: They undertake the task of optimizing communication between the academic staff, students and Faculty management with regard to teaching activities. They co-ordinate academic activities in order to ensure these are appropriately scheduled.

**Entrepreneurship Tutor:** Ángel Hernández Guerra. The tutor works with CEU-Emprende to organize activities which develop and enhance business creativity.

**Postgraduate Co-ordinator:** Victoria Villagrasa Sebastián. The co-ordinator optimizes communication between Offices of the Rector and the Chief Executive and the co-ordinators of the different postgraduate courses at the Faculty.

International Co-ordinator: M<sup>a</sup> Magdalena Garijo Toledo. The co-ordinator undertakes academic functions which are of an international nature, with the collaboration of the ERASMUS co-ordinators, such as the supervision of the establishment and renewal of agreements with other institutions.

**Erasmus/SICUE-SÉNECA co-ordinator:** M<sup>a</sup> Teresa Balastegui Martínez. The co-ordinator is responsible for academic matters concerning Erasmus/SICUE-SÉNECA students at the Faculty, also acting as their personal tutor.

**Coordinator of the Doctoral Programme:** Juan Manuel Corpa Arenas (new programme) and José Terrado Vicente (programme being phased out). The co-ordinators are responsible for defining and overseeing the programme's activities (characteristics of the academic staff, student admissions, etc.).

**Coordinator of External Internships in Spain:** Jesús Cardells Peris. The co-ordinator is responsible for the management and proper functioning of student internships within Spain.

**Coordinator of the Master's Degree in Food Safety:** M<sup>a</sup> Carmen López Mendoza. Responsible for the proper academic functioning and management of this programme.

**Coordinator of the Certificate in Diagnostic Imaging:** Enrique Soriano Portas. Responsible for the proper academic functioning and management of this programme.

**Programme quality co-ordinator:** María Lorena Mocé Cervera. Responsible for ensuring that the study programmes comply with the different activities, tasks and deadlines which form part of the quality assurance processes.

#### ANNEX 4: International week

#### Information

The CEU Cardenal Herrera is a University which prepares students to become professionals. It is a prestigious University, with over 40 years of experience. Our numerous academic degree courses on offer are vast and continuously growing in response to the needs of our society and demand for our future professionals. The training of veterinarians' students at our University has four main strengths: the quality and excellence, practical work associated with finding employment, personal attention given to students and the internalization of studies. The internationalization of the Universities plays an important role such as the intellectual development of university students, enhancing open-minded specialists who are able to work within the globalized world. For this reason, the University contributions to society are searching for truth through promoting advanced education and research in an international context.

As globalization is progressing, it stresses the importance of the mobility of researchers and professors from different Universities, thereby it enriches the potential of these University society and benefits from the latest advances in research of neighboring countries. In this context, the University CEU Cardenal Herrera presents the International Veterinary Week 2015, in which





teachers and researchers from different countries are invited to showcase their latest advances in Veterinary clinical pathology, animal production and food hygiene and technology.

#### The objectives of this encounter are

To share teaching strategies and methodological disciplines around practical or theoretical disciplines linked to the studies of Veterinary Sciences.

To discover different specific realities of the European context in our disciplines, emphasizing those approaches more specifically linked to latest advances in Veterinary clinical pathology, animal production and food hygiene and technology. The overlapping of realities should reflect both the wide range of existing and potential synergies and also the contact points between the parties.

To stimulate dialogue on successful information diffusion and cooperation between the different players in animal health standards, Human Health and consumer wellbeing.



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2° CONCEV Congreso nacional científico de alumnos de VETERINARIA 2ºª National scientífic congress of VETERINARY students

MONCADA, VALENCIA I DEL 8 AL 10 DE ABRIL DE 2014

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# ANNEX 5: COURSES ORGANIZED BY THE FACULTY IN 2014-15

TITLE OF COURSE	TYPE OF ACTIVITY	DEPARTMENT	NUMBER OF Participants	TOTAL HOURS COURSE
WORKSHOP ON EQUINE OPHTHALMOLOGY	WORKSHOP	ANIMAL MEDICINE AND SURGERY	20	8 H
CONFERENCE ON LABORATORY INTERPRETATION FOR EQUINE PATIENTS WITH ACUTE ABDOMINAL PAIN	CONFERENCE	ANIMAL MEDICINE AND SURGERY	60	8 H
LECTURE: INTRODUCTION TO AQUACULTURE	LECTURE	PASAPTA PRODUCTION AND ANIMAL HEALTH, PUBLIC VETERINARY HEALTH, FOOD SCIENCE AND TECHNOLOGY	60	2 H
BEHAVIOURAL PROBLEMS IN PSITTACIDAE	CONFERENCE	ANIMAL MEDICINE AND SURGERY	39	11 H
MECHANICAL VENTILATION	CONFERENCE	HCV CLINICAL VETERINARY HOSPITAL	15	2 H
BLOOD TRANSFUSION	CONFERENCE	HCV CLINICAL VETERINARY HOSPITAL	80	5 H
WORKSHOPS ON OVARY ULTRASOUND SCANS IN SMALL RUMINANTS	WORKSHOPS	TEACHING AND RESEARCH FARM	35	5 H
THE WORK OF A VETERINARY SURGEON IN AFRICAN SANCTUARIES	CONFERENCE	HCV CLINICAL VETERINARY HOSPITAL	45	1 H
DIETARY MANAGEMENT OF PATIENTS WITH KIDNEY FAILURE	CONFERENCE	HCV CLINICAL VETERINARY HOSPITAL	20	1 H
6 <sup>™</sup> WORKSHOP ON VETERINARY MEDICINE TRAUMATOLOGY	WORKSHOPS	ANIMAL MEDICINE AND SURGERY	50	10 H
SPANISH FIGHTING CATTLE AND ITS PRODUCTION	COURSE	TEACHING AND RESEARCH FARM	23	30 H
SCIENTIFIC WORKSHOP, CHAIRED BY THE GARCÍA CUGAT FOUNDATION (FUNDACIÓN GARCÍA CUGAT): UPDATE ON THE HANDLING AND TREATMENT OF DEGENERATIVE JOINT DISEASE. NEW STUDIES	WORKSHOP	ANIMAL MEDICINE AND SURGERY	100	3 H
WORKSHOP ON EQUINE CARDIOLOGY	WORKSHOP	ANIMAL MEDICINE AND SURGERY	20	8 H
FREEZING OF SEMEN AND ITS USE	CONFERENCE	ANIMAL MEDICINE AND SURGERY	60	1 H
SEXING OF SPERM CELLS AND ITS USE	CONFERENCE	ANIMAL MEDICINE AND SURGERY	60	1 H
1 <sup>ST</sup> WORKSHOP ON VETERINARY ONCOLOGY FOR STUDENTS	WORKSHOPS	HCV CLINICAL VETERINARY HOSPITAL	100	18 H
ADAPTED NUTRITION FOR CATS AND DOGS	CONFERENCE	ANIMAL MEDICINE AND SURGERY	50	2 H
3 <sup>RD</sup> INTERNATIONAL VETERINARY WEEK	CONGRESS	PASAPTA PRODUCTION AND ANIMAL HEALTH, PUBLIC VETERINARY HEALTH, FOOD SCIENCE AND TECHNOLOGY	51	9 H
CONFERENCE ON VETERINARY PHARMACOVIGILANCE	CONFERENCE	DEPARTMENT OF PHARMACY	160	1 H
WORKSHOPS ON EXOTIC ANIMALS	WORKSHOPS	STUDENT DELEGATION FOR EXOTIC ANIMALS	40	11 H
TRANSGENIC ANIMALS: UTOPIA OR REALITY	CONFERENCE	ANIMAL MEDICINE AND SURGERY	60	1 H
TECHNICAL-ECONOMICAL MANAGEMENT OF A SMALL RUMINANT FARM	COURSE	TEACHING AND RESEARCH FARM	87	4 H
APPLICATION OF FOOD SAFETY SYSTEMS IN THE MEAT INDUSTRY SECTOR	CONFERENCE	PASAPTA PRODUCTION AND ANIMAL HEALTH, PUBLIC VETERINARY HEALTH, FOOD SCIENCE AND TECHNOLOGY	48	2 H
LAMENESS IN CATTLE	SEMINAR	PASAPTA PRODUCTION AND ANIMAL HEALTH, PUBLIC VETERINARY HEALTH, FOOD SCIENCE AND TECHNOLOGY	15	6 H



# ANNEX 6. Veterinary Medicine VIDEOS: collaborations with PLATO (the Recording Studio of the University)

#### **I/ TEACHING VIDEOS**

#### PARASITIC ZOONOSIS

https://www.youtube.com/ watch?v=PfAv5vmo7KM





Taking samples, culture media, microbiology techniques, etc.

# Según su Empleo



#### DISSECTIONS

- . . . . . . . . . . Stomach
- $\checkmark$
- Female reproductive system
- Male reproductive system
- Spinal column
- Facial muscles
- Kidneys
- Spleen
- Heart
- Liver
- Tongue

- $\checkmark$ Lateral lower extremity
- $\checkmark$ Medial lower extremity
- $\checkmark$ Lateral upper extremity
- Medial upper extremity
- Thorax, abdomen, neck, ventral, dorsal and lateral https://www.youtube.com/watch?v=xHrHzeHbtm4 https://www.youtube.com/watch?v=uDxbt7l6TTU Trunk (back)
- https://www.youtube.com/watch?v=6klf7mAHq-c  $\checkmark$ Upper limb (shoulder and forelimb)
- https://www.youtube.com/watch?v=u1N2ju1fyvE



#### MUSCULOSKELETAL SYSTEM

#### Videos in Spanish

Introduction to osteology:

https://www.youtube.com/watch?v=dJEP\_3ltQ6U

Scapula: https://www.youtube.com/watch?v=xEQXtrjm0jE

Humerus:

https://www.youtube.com/watch?v=y76oC6FW6DY

Radius and ulna: https://www.youtube.com/watch?v=ZPW9rZh21Fc

Carpal bones: https://www.youtube.com/watch?v=Gv-BWQyfXLc

Metacarpals: https://www.youtube.com/watch?v=Eew6UdNv-RQ

Phalanges of the upper limb: https://www.youtube.com/watch?v=OwDGtPyBMRY

Coxal bone: https://www.youtube.com/watch?v=laLakepIHTc

Femur and patella: https://www.youtube.com/watch?v=tePUSLWFI6M

Tibia and fibula: https://www.youtube.com/watch?v=FUUNSha7Clc

Tarsus, metatarsals and phalanges: https://www.youtube.com/watch?v=49\_GzO8eTNc

#### **Videos in French**

Introduction to osteology: https://www.youtube.com/watch?v=W9o9l4A3a1o Scapula: https://www.youtube.com/watch?v=h26ueLGNhno Humerus: https://www.youtube.com/watch?v=8XJbK3j-ko8 Radius and ulna: https://www.youtube.com/watch?v=yLS2DE1iVSc Carpal bones: https://www.youtube.com/watch?v=fuBj6cNgPak Metacarpals: https://www.youtube.com/watch?v=HgpiJfPmfwA Phalanges of the upper limb: https://www.youtube.com/watch?v=cl3e9dtNtwE Coxal bone: https://www.youtube.com/watch?v=tkqfYksctUw Femur and patella: https://www.youtube.com/watch?v=DkBHPuLgwAc Tibia and fibula: https://www.youtube.com/watch?v=fWDudEvdVjo Tarsus, metatarsals and phalanges: https://www.youtube.com/watch?v=-f8LKf5Fv58

#### **II/ OCCUPATIONAL VIDEOS**

# <text>

#### GENERAL

# VETERINARY MEDICINE BOOK 100X100

#### Joaquín Sopena - Santiago Vega

This book records the most important news from 2012 and issues of particular interest from all areas of practice across the veterinary profession. It aims to give the reader a real taste of the day-to-day work involved in the profession and to enrich the reader's view of what being a veterinary surgeon means, by means of a tour through the diverse options and possibilities for specialization that such a qualification offers.

#### https://www.youtube.com/watch?v=BsUPVdxQ6mk



#### MEDICINE AND SURGERY





# OPERATION ON A FEMALE DRILL

The CEU Cardenal Herrera University's Hospital Clínico Veterinario successfully operated on Ebonji, a female drill from Valencia's Bioparc, which had suffered a fractured femur. After the operation and due to the outstanding care provided by the veterinary surgeons and the staff at the Bioparc, Ebonji is now back home and has recovered full mobility.

https://www.youtube.com/watch?v=vCOBRiGxuto

## A FOX AT THE BIOPARC IN NEED OF VETERINARY CARE

The Universidad CEU Cardenal Herrera colloborated with the Bioparc to provide veterinary care to a fox. The Bioparc in Valencia requested the help of the UCH-CEU's Faculty of Veterinary Medicine in order perform a number of medical tests on a bat-eared fox. The purpose of this collaboration was to establish the extent of the problem in order to facilitate this mammal's recovery.

https://www.youtube.com/watch?v=BXyO193Y-tc



OPERATION ON A FOSSA FROM THE BIOPARC https://www.youtube.com/ watch?v=eV9DPOaWE70&index=8&list=PL2AF89103BF18ACC9



# STERILIZATION OF WILD ANIMALS FROM THE BIOPARC



https://www.youtube.com/watch?v=wOk65-KrXkl&index=55 &list=PLSDSL7TFUakZ8xhpWOmhNQ4oRk6y2cCSl



REPRODUCTION - STALLIONS

Rosana Domingo - Santiago Vega

https://www.youtube.com/watch?v=H4MTq-wEvHM

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#### RESEARCH

#### OUR VETERINARY MEDICINE UNDERGRADUATES



#### VETERINARY SURGEONS AND SOCIETY

Example of a collaboration project: participation by the Faculty in a UN military-civilian project in the Lebanon

Santiago Vega - Rosana Pastor

https://www.youtube.com/watch?v=LQ14Gt4LPks



#### LEARN TO UNDERTAKE RESEARCH

Sandra Mateu and Santiago Alonso, Veterinary Medicine undergraduates at the CEU Cardenal Herrera University, have undertaken research studies on the use of thermal imaging as a technique which can assist in diagnosis. Their project has helped Kibo, an elephant at the Bioparc in Valencia, to recover from an inflammation.

#### https://www.youtube.com/watch?v=h\_EWX4CDKDU



# RAISING AWARENESS ABOUT ABANDONED PETS: "THEY WOULD NEVER DO IT"

Spain has one of the highest rates of abandonment of animals in the European Union, and this situation has worsened during the recent economic crisis. In order to encourage the responsible pet ownership, the regional government of Madrid undertakes initiatives such as the Salón de Adopción de Animales de Compañía ("Adopt a Pet Campaign"). This campaign includes the event known as Perrotón, whose aim is to raise awareness of the issue by means of various activities including a charity run.

https://www.youtube.com/watch?v=iwUZD0KtEb8

# ANNEX 7. Research at the CEU-UCH Faculty of Veterinary Medicine

No. of Research Groups	12
Publications (2011-2016)	
No. of Articles	143
No. of Q1 Articles	92
% of Q1 articles	64%
No. of citations	370
citations/article	2.59
No. of sexenios*	37
Research funding (2011-2016)	
N° of funded projects	39
External projects	9
Internal projects	30
Total funding	549,711

\*Externally-assessed six-year periods of research activity.

Humans = 0

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# ANNEX 8. The Faculty of Veterinary Medicine participation in solidarity projects

The Faculty is involved in various Solidarity projects for instance here in:

Libanon, Mozambique, Kenya and Malawi









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