



# **Self Evaluation Report**

## **Veterinary Faculty of León**

### **University of León**

**December, 2014**







Presented by the Veterinary Faculty of León  
in October 2014  
León (Spain)

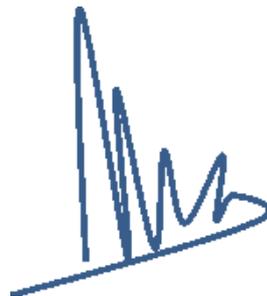
Veterinary Faculty of León 2014

MARÍA JOSÉ RANILLA GARCÍA, SECRETARY OF THE  
FACULTY OF VETERINARY OF THE UNIVERSITY OF  
LEÓN

CERTIFIES THAT:

The present document “Self Evaluation Report” has  
been approved by the Faculty Board on 15th October  
2014.

This certificate is signed on 15th October 2014.

A handwritten signature in blue ink, consisting of several vertical strokes of varying heights and a few horizontal strokes at the bottom, all contained within a thin blue rectangular box.

María José Ranilla García  
Secretary of the Veterinary Faculty of León



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CHAPTER 13. RESEARCH

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13.1. FACTUAL INFORMATION

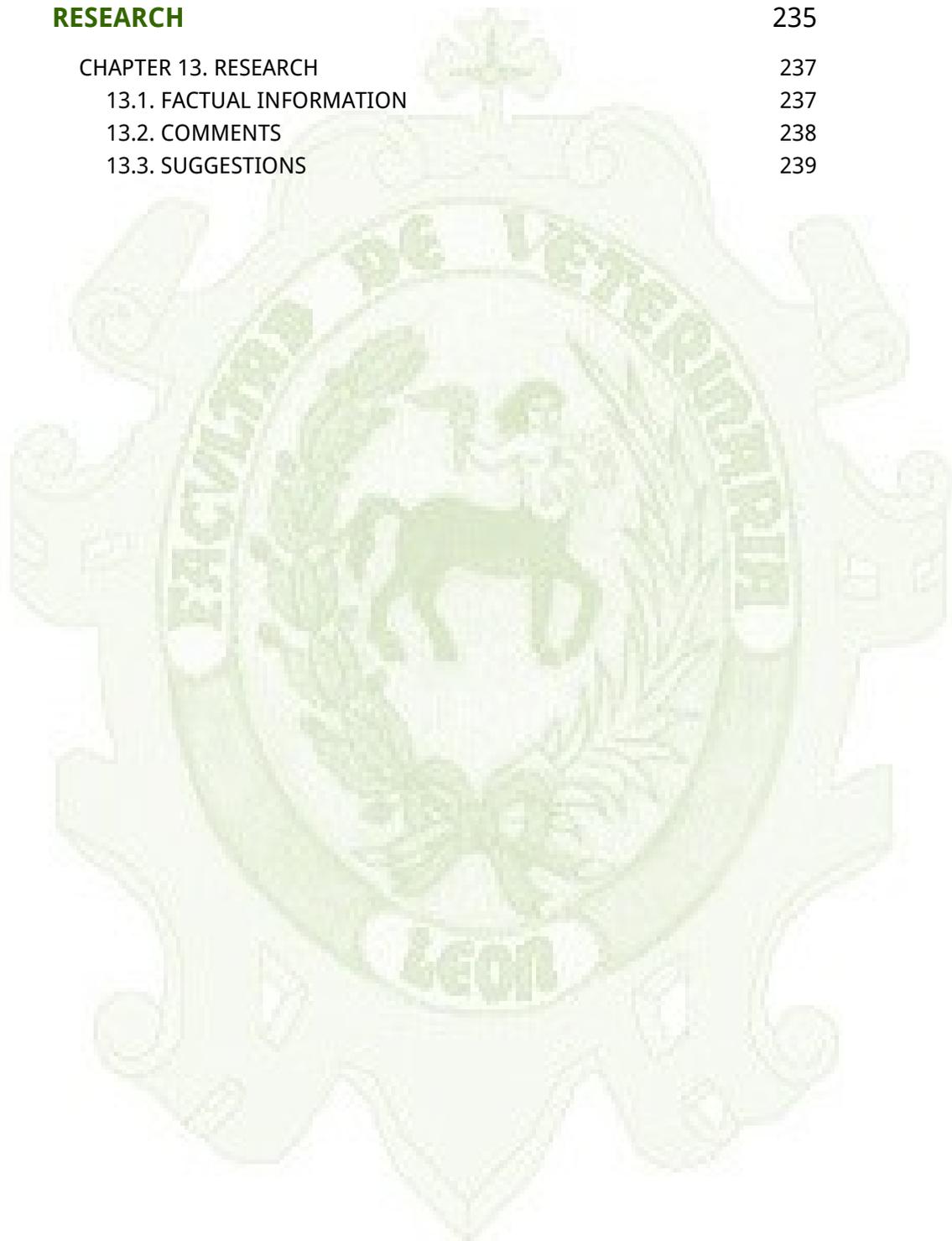
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**CHAPTER 00**

# **INTRODUCTION**

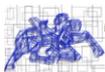
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Provide an outline of the main features of the history of the Faculty in the period since the last evaluation visit or, if there has not been a previous visit, in the last ten (10) years

The Veterinary Faculty of León is the oldest faculty in the University of León, having been founded in 1852. It was the first Veterinary Faculty in Spain to be assessed by the Consultative Committee for Veterinary Training of the European Union in May, 1989. Later, the Veterinary Faculty of León received a further assessment from a Committee, now within the framework of the Evaluation Programme of the European Association of Establishments for Veterinary Education (EAEVE), in November, 2001. During this visit, several Category I deficiencies were detected and over these last years, attempts have been made to rectify them. The main modifications and actions carried out in the Veterinary Faculty of León during the last thirteen years, with the aim of providing high-quality veterinary training in accordance with the standards of the EAEVE will be described below. It should be pointed out that various structural, organizational, financial and other circumstances have delayed the taking and putting into practice of measures directed towards the fulfilling of the requirements of a modern and competitive Veterinary Faculty, especially with regard to clinical training of veterinarians. Despite this, the various successive management teams of the Veterinary Faculty of León, in conjunction with the teaching, administration and service staff, have undertaken major efforts, whose results we hope will be recognized in the assessment to be carried out by the EAEVE Committee in December 2014.



### Main organizational changes

The organizational structure of the Veterinary Faculty of León has undergone only limited changes during the last eleven years. The management team for the Faculty is made up of a Dean, two Vice-Deans and a Secretary. However, there has been a reorganization of the Departments that teach the various subjects at primary degree level in Veterinary Studies. Whilst in 2001 there were eleven departments involved in teaching, by 2014 these had been reduced to six.

### New regulations relating to teaching

In December of 2001, the Spanish Parliament approved a Basic Law on Universities (LOU) which replaced the former University Reform Law (LRU). In order to meet the requirements of the LOU, it also approved Statutes for the University of León on 23 October 2003. These were published in the Official Bulletin of the Autonomous Region of Castilla y León (BOCYL) on 29 October 2003. At a later date, April 2007, the LOU was modified in order to suit it to the building and adjustment of the European Higher Education Area, becoming the LOMLOU.

The Spanish Ministry of Education, Culture and Sport performs the functions of coordination for the Spanish education system. The Regional Government of Castilla y León (JCyL) is responsible for financial matters and for university policies, as well as proposing legislation of a regional scope.

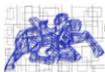
During the period concerned, the Regional Parliament of Castilla and León enacted the following piece of legislation:



- ▶ Law 3/2003, of 28 March 2003, concerning the Universities of Castilla y León, published in the Spanish Official State Bulletin (BOE) on 23 April 2003.
- ▶ Royal Decree 64/2013, of 3 October, for the organization and planning of official Degree and Master Education in Castilla y León. BOCYL 7/10/13
- ▶ Order EDU/213/2014, of 27 March, developing Decree 64/2013, of 3 October, for the organization and planning of official Degree and Master education in Castilla y León

In relation with the European Higher Education Area, various new regulations have been brought in at a national level, such as the following Spanish regulations:

- ▶ Royal Decree 1125/2003, of 5 September 2003, putting in place the European Credit Transfer System and laying down the system of marks for university qualifications of an official nature, valid throughout Spain.
- ▶ Royal Decree 55/2005, of 21 January 2005, setting out the structure of university education and regulating official university courses leading to primary degrees.
- ▶ Royal Decree 1393/2007, establishing the organization of official University courses.
- ▶ Royal Decree 1892/2008, of 14 November 2008, governing the conditions for access to official university courses for primary degrees and the admission procedures for Spanish state universities.
- ▶ Royal Decree 861/2010, modifying Royal Decree 1393/2007, which established the organization of official University courses, published in the BOE on 3 July 2010.
- ▶ Royal Decree 1707/2011, of November 2011, regulating practical academic placements for university students, published in the BOE on 10 December 2011.



- ▶ Organic Law 8/2013, of 9 December, for the improvement of the quality of Education (10 December 2013)
- ▶ Royal Decree 96/2014, of 6 June, establishing the basic rules for the admission procedures to the official university degrees, published in the BOE on 7th June 2014
- ▶ Royal Decree 592/2014, of 11th July 2014, regulating practical academic placements for university students published in the BOE on 31th July 2014.

In relation to courses leading to the training of Veterinary Professionals, over the period in question the following have been published in Spain:

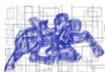
- ▶ Law 44/2003, of 21 November 2003, on the organization of health professions, published in the BOE (No. 280) on 22 November 2003.
- ▶ The Spanish White Paper on Primary Degrees in Veterinary Studies, ANECA, 2005.
- ▶ Directive 2005/36/EC on the recognition of professional qualifications, published in the Official Journal of the European Union on 30 September 2005.
- ▶ Resolution of 17 December 2007, setting out the conditions that must be met by syllabuses leading to the award of qualifications that permit their holders to practise the controlled profession of veterinarian, published in the BOE on 21 December 2007.
- ▶ Order ECI/333/2008 of 13 February 2008, establishing the requirements for the recognition of official university qualifications that permit their holders to practise as veterinarians, published in the BOE on 15 February 2008.
- ▶ Royal Decree 1837/2008, incorporating Directive 2005/36/EC into Spanish law, published in the BOE on 20 November 2008.



- ▶ DIRECTIVE 2013/55/EU amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System ('the IMI Regulation') published in the Official Journal of the European Union on 28th December 2013.
- ▶ Royal Decree 96/2014, of 14 February 2014, modifying Royal Decree 1027/2011, of 15 July 2011, which recognizes the level of Master (MECES level 3) to the Veterinary Degree, published in BOE on 5 March 2014.

The University of León has developed regulatory standards so as to adapt its courses to the new undergraduate (or primary) and post-graduate degrees (bachelor's and master's qualifications) of the European Higher Education Area:

- ▶ A procedure for adapting the current official courses of the University of León to the new official course patterns, adopted on 16 November 2007.
- ▶ General guidelines for the organization of primary degree courses, adopted on 5 June 2009.
- ▶ Regulations for final-year projects for primary degrees at the University of León, adopted 12 May 2010.
- ▶ Regulations for the assessment and marking of studies at the University of León, published in the Official Bulletin of the Autonomous Region of Castilla y León (BOCYL) on 12 May 2010.
- ▶ Standards for academic and attendance requirements for official primary and post-graduate degrees at the University of León, adopted on 21 June 2010.
- ▶ Standards for the recognition and transfer of credits of the University of León in primary and master's degree courses, published in the BOCYL on 21 March 2011.



- ▶ Rules for the Final Year Project of the University of León, 16/12/2011.
- ▶ Degree teaching coordination procedure, adopted on 28/01/2014.
- ▶ Regulation for the external practicals in Degree, Master and PhD studies at the University of León, adopted on 17/06/2014.

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#### New buildings or major items of equipment

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The most significant changes achieved in recent years at the Veterinary Faculty of León include:

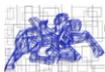
- ▶ Re-opening of the Veterinary Teaching Hospital of Castilla y León and initiation of its activities in March 2009. The Regional Government of the Autonomous Region of Castilla y León and the University of León established a model of governance supported by a Foundation
- ▶ In February 2013 the Faculty team and the Faculty staff, in agreement with the Vice-Chancellor of the University of León, decided the postponement of the coming visit to the Veterinary Faculty of León. This was an unfortunate consequence of the closure of the Veterinary Hospital, which was communicated by the Vice-Chancellor to the Faculty on 18th February. The Regional Government (Junta de Castilla y León) took this decision arguing economic reasons, and so the Board governing the Veterinary Hospital (Fundación Hospital Clínico Veterinario de Castilla y León) was suspended, the personnel fired and the equipment and facilities seized. The provisional administrator in charge of the economic affairs prohibited all type of clinical activity in the hospital.



- ▶ In July 2013, once the Foundation ended the procedures for its seizing, the property and management of the Veterinary Hospital reverted to the University. In September 2013, the Governing Council of the University approved the provisional rules for the operation of the Veterinary Hospital in order to allow it to carry out its basic functions of contributing to the clinical training of Veterinary Degree students, as well as the social commitment of supporting all the activities related with the Clinical Veterinary in Castilla y León. These rules mark the current operation and structure of the Hospital, its activity and the clinical service, as well as the staff, consisting mainly in teachers from ULE and training scholarship holders.
  
- ▶ Finally, on 30th September 2013, the Veterinary Hospital started its clinical and teaching activities, just a year ago now. In addition to the usual consultations, the following actions have been established by the Hospital, as a consequence of the social corporative commitment of the University of León:
  - Free attention (material costs excluded) and costs for the animals from the local animal welfare organization (materials)
  - Free attention for veterinary student's animals
  - Reduced prices for ULE community members
  - Reduced price of selected services to veterinary clinics.

Another crucial line of action of the Veterinary Hospital is the training stays of students from the Faculty in non-school days, as well as the external training stays, open to veterinarians, students and teachers from other Universities.

The Veterinary Hospital is establishing protocols intended to improve and unify the services offered, optimize the work and transmit the students its importance. Finally, 4th and 5th year students have been incorporated into the Clinical Services of the Hospital, encouraging their participation in the day to day activities of these Services.



- ▶ The siting of the offices and staff of the Veterinary Medicine, Clinical Studies and Reproduction units in the Veterinary Teaching Hospital.
- ▶ Installation of full equipment (computers and projection systems) in the classrooms and main lecture theatre of the Faculty.
- ▶ Construction of a new upper floor in the Faculty Library, so as to increase the number of spaces for reading and consulting text books.
- ▶ Renewal of the computing equipment in the Faculty Computer Room.
- ▶ Purchase of lap-top computers for the Faculty Library that can be loaned to students.
- ▶ Installation of a Wi-Fi system with coverage throughout the Faculty and Hospital.
- ▶ Creation of a dedicated web-site for the León Veterinary Faculty.
- ▶ The establishment of an agreement with a private company to collect biological and chemical waste (REBISA enterprise).
- ▶ Remodelling of the reception (porter's lodge) area.

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#### Main changes to the study programme

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The syllabus current at the time the last visit of the Consultative Committee for Veterinary Training in 2001, which had been in force since 1992, was replaced by the new syllabus adopted in 2004, published in the BOE on 20 January 2004. This new curriculum brought with it a clear improvement in the veterinary training offered by the Faculty. It comprises all the requirements laid down in the



basic legislation for veterinary education in the countries of the European Union. This syllabus implemented a striking increase in the level of practical activities undertaken by students. Furthermore, clinical work increased substantially with the incorporation of extramural practices, during which students are brought into contact with professional activity for a period of time towards the end of the final year (150 hours).

In this context, during the academic year 2010-2011 the new syllabus for the European higher Education Area (EHEA) Degree in Veterinary Studies came into force. In this way, the Veterinary Faculty of León is now offering the complete Primary Degree in Veterinary Studies.

The Veterinary Faculty of León also offers post-graduate studies following the model of the European Higher Education Area, in the shape of a research Master's Degree in Veterinary Studies and Food Science and Technology. This is complemented by its Doctorate in Animal Medicine, Health and Production and Food Science, and more recently the Doctorate in Veterinary and Food Sciences.

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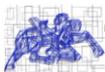
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Important decisions made by the management of the Faculty, or by the authorities responsible for it

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- ▶ The creation of an internal Quality Guarantee System: this system was established in accordance with the provisions of Royal Decree 55/2005, of 21 January 2005, which set down the structure of university courses and laid down rules for official university studies leading to a primary degree.
- ▶ The offering of Summer Schools which students can attend so as to round out their training during vacation periods, whether in the Veterinary Teaching Hospital (VTH) or in other Veterinary Faculty branch sites.
- ▶ The carrying out of voluntary practicals by students at the VTH.



- ▶ An Internship Programme has been set up in the VTH. This programme will require more detailed development over the next few years.
- ▶ The setting up of a programme of extramural practicals involving farm animals, in conjunction with External Collaborating Veterinarians.
- ▶ In respect of external work by students, there has been an increase in the number of collaboration agreements with organizations, institutions and businesses outside the University.

Major problems encountered by the Faculty, whether resolved or not

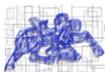
The difficulties or problems that the Veterinary Faculty has faced and that have not yet been completely overcome are detailed below. These comprise matters that are still pending, which have had particular attention paid to them in the last few years.

- ▶ The Faculty has no mobile clinic functioning associated to the Veterinary Teaching Hospital. At the time of the first visit by the Committee in 1989, there was some provision for a travelling clinic service, provided by the teaching staff themselves. The current situation has changed considerably, in the sense that upon the commencement of operations by the Veterinary Teaching Hospital any travelling clinic service should be dependent on this Hospital, as was recommended in the last report by the Evaluation Committee. In the period of time that has gone by since the Hospital began functioning it has simply not been possible to gain access to the material, financial and human resources needed to establish in definitive form the travelling clinic service.
- ▶ The level of operation of the VTH has not still reached the degree of satisfaction that the Faculty requires. The model of



management is now under the teaching staff from the areas of veterinary medicine and surgery through the various services offered by the hospital. The intention of the management team led by the Dean of the Faculty is to optimize the functions that must be performed by the VTH, which would also be particularly aimed at clinical training and practice for Veterinary Studies students, who are future professional veterinarians. The Veterinary Faculty of León cannot currently play a decisive part in the taking of strategic decisions affecting initiatives affecting the Veterinary Teaching Hospital.

- ▶ The North wing of the main building, which contains Surgery and Radiography units, among others, should be remodelled so as to allow a better lay-out for the physical spaces within the Faculty. This rebuilding plan was drawn up in 2008, but for financial reasons it has not been possible to carry it out, and this continues to be the situation currently.
- ▶ The putting in place of the new degree courses requires adaptations in the infrastructures to fit them for current learning methods. On this point, the Veterinary Faculty of León needs its premises to be adjusted, fundamentally so as to have available smaller rooms for tutorials, seminars, discussion sessions, and group work. These measures have been repeatedly requested from the authorities, but the current economic situation prevents any building works, investments in new infrastructures, or similar.
- ▶ During recent years, the Veterinary Faculty of León has suffered a considerable loss of staff, specially teaching staff. In addition, consideration should be given to the average age of the teachers in the Faculty, which is particularly high. These circumstances require immediate action to renew the teaching staff of the Faculty by bringing in young teachers with a solid training who can ensure the continuity of the teaching abilities of the Faculty in all its areas of expertise. This aspect has constituted a constant request from the Faculty management to the relevant academic authorities.



- ▶ The funding received by the Veterinary Faculty of León is clearly insufficient to ensure the material means for integrated veterinary training in accordance with E.U. requirements. The Veterinary Faculty and the University of León are conscious of the difficulties of obtaining financial resources at the present time. The degree of autonomy of the Veterinary Faculty to undertake investments is nil, owing to current legal regulations and the present functional structure.

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Response to the suggestions included in the report of the European Committee for the Evaluation of Veterinary Training

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Suggestions which if not put into practice might prevent the training offered by the University from meeting the requirements laid down in Directive 78/1027/EC.

THE VETERINARY FACULTY SHOULD HAVE AUTHORITY OVER THE TEACHING OF BACHELOR'S DEGREES AND OVER THE SERVICES FOR THIS THAT ARE ESSENTIAL SUPPORTS FOR TEACHING, INCLUDING THE POWER TO ASSIGN RESOURCES, SUCH AS CREDITS FOR TEACHING, TO THOSE DEPARTMENTS, SECTIONS OR STAFF THAT MOST EFFECTIVELY CARRY OUT TEACHING:

- ▶ Unfortunately, in León the Veterinary Faculty cannot currently play any decisive part in the taking of strategic decisions that would allow initiatives affecting departments and teaching staff that are considered important for the Veterinary Faculty.

IN THE CURRICULUM FOLLOWED BY ALL VETERINARY STUDIES STUDENTS THERE SHOULD BE AN ADEQUATE AMOUNT OF PRACTICAL CLINICAL TRAINING, BASED ON PATIENTS ADMITTED TO HOSPITALS OR ON CLINICAL CASES ATTENDED AT A MOBILE CLINIC:

- ▶ Both in the 2004 syllabus and in the syllabus for the primary degree in Veterinary Studies from 2010, the amount of



practical clinical work that must be performed by students so as to acquire adequate training was increased considerably. It is carried out principally in the facilities of the VTH and through a programme of external practicals with farm animals undertaken with the support of veterinarians from outside the university who are on contracts.

THE HOSPITAL SHOULD COMBINE THE CLINICAL RESOURCES AVAILABLE SO AS TO OFFER A MORE ACCESSIBLE AND INTEGRATED SERVICE, WITH CONSULTATIONS FOR PATIENTS FROM OUTSIDE, BOTH IN INSTANCES OF FIRST OPINION AND IN CASES REFERRED BY VETERINARY PRACTITIONERS. IT SHOULD REMAIN OPEN THROUGHOUT THE WHOLE WORKING DAY, THIS BEING COMPLEMENTED BY TWENTY-FOUR-HOUR COVER FOR HOSPITAL CARE AND TREATMENT OF URGENT CASES:

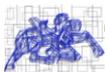
- ▶ The VTH has been meeting the suggested opening hours which cover the normal working day, offers a twenty-four-hour emergency service and continuous attention for patients admitted. All these services are staffed by the Hospital Residents and teaching staff.

A MOBILE CLINIC SHOULD BE ESTABLISHED WITH A STRUCTURED PARTICIPATION BY ALL THE CLINICAL SECTIONS AND WITH STUDENTS TAKING PART AS AN ELEMENT OF THEIR TIMETABLE (THROUGH ROTATIONS):

- ▶ Ever since the opening of the VTH, efforts have been made and initiatives have been undertaken to set up a travelling clinic dependent on this Hospital. As was recommended by the Evaluation Committee in 2001, the Reproduction and Obstetrics Unit of the Veterinary Faculty has taken the first steps towards putting into operation a mobile clinic organized around this Reproduction Service.

THE NUMBER OF CASES AVAILABLE FOR THE CLINICAL TRAINING OF STUDENTS SHOULD BE SUBSTANTIALLY INCREASED IN RESPECT OF ALL SPECIES:

- ▶ The number of cases available for the training of Veterinary Studies pupils has grown, especially over the last few years. This growth is not fully satisfactory, as it has not reached a



number of animals that would permit ratios approximating to those required by the EAEVE. The Veterinary Faculty and its teaching staff are particularly concerned to achieve an increase in the clinical cases handled by the Hospital. The students need to have available to them the largest possible number of clinical cases, whether small animals, large animals, or farm livestock. In addition, the concept of the VTH as a university Veterinary Teaching Hospital which is a centre of excellence, the only such facility in the Castilla y León region, should be matched by a corresponding level of treatment work, this constituting another of its objectives.



## CHAPTER 01

# OBJECTIVES

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## CHAPTER 01. OBJECTIVES

### 1.1. FACTUAL INFORMATION

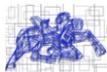
Indicate whether there is an official list of the overall objectives of the Faculty. If this is the case; please indicate these.

- ➔ Who determines the official list of objectives of the Faculty?
- ➔ By what procedure is this list revised?
- ➔ Do you have a permanent system for assessing the achievement of the Faculty's general objectives? If so, please describe it.
- ➔ If there is no official list, please indicate the objectives that guide the Faculty's operation.

The main aims of Veterinary Faculty of León can be summed up as preparing students for professional veterinary activities: animal medicine and surgery, animal production, and food hygiene and technology.

The official list of aims for the undergraduate degree in Veterinary Studies is stated in Chapter 3 of the Memorandum for Approval for this degree. When it was being drawn up, account was taken of what was laid down in Order ECI/333/2008, of 13 February 2008, which established the requirement for recognition of official university qualifications fitting their holders to exercise the profession of veterinarian, published in the Spanish Official Bulletin (BOE) No. 40 on 15 February 2008, together with European Union Directive 2005/36/EC, and the White Paper on primary degrees in Veterinary Studies published by the Spanish National Agency for Assessment, Quality and Accreditation (ANECA).

On 21 January 2009, the Board of the Veterinary Faculty approved a Memorandum in which the following aims were envisaged:



1. Controlling the hygiene, the inspection and technology of the production and manufacture of foodstuffs for human consumption from the point of initial production down to the end consumer.
2. Prevention, diagnosis and individual or collective treatment, together with the fight against animal diseases, whether individual or group, particularly zoonoses.
3. Checking of the raising, handling, welfare, reproduction, protection, and feeding of animals, as also improvements in animal production.
4. Obtaining products of animal origin under optimum and financially viable conditions and evaluation of their environmental impact.
5. Ensuring awareness and application of legal provisions, regulations and administrative standard to all areas of the veterinary profession and of public health, with an understanding of the ethical implications of health in a changing world context.
6. Developing professional practices directed towards other health professionals, acquiring abilities related to working in a team, with the efficient use of resources and quality control.
7. Identifying emerging risks in all areas of the veterinary profession.

According to what is laid down in the Memorandum, the **general or transferrable skills** that should be acquired by graduates in Veterinary Science are the following:

- G1.** Analysing, summing up and solving problems, and taking decisions in professional veterinary contexts.
- G2.** Working in teams, whether of a single or various disciplines, and showing respect, appreciation and sensitivity towards the work of others.
- G3.** Maintaining ethical behaviour in the undertaking of responsibilities towards the profession and society in general.
- G4.** Communicating in a fluent manner, whether in speech or in writing, information gained during the exercise of the profession of veterinarian to other colleagues, to the authorities and to society as a whole.



- G5.** Drawing up professional reports and presenting them in an appropriate manner, while maintaining any necessary confidentiality.
- G6.** Seeking out and managing information related to the activity of veterinarians.
- G7.** Applying the scientific method in professional practice, including medicine based on evidence.
- G8.** Being aware of how to obtain professional advice and assistance.
- G9.** Showing enthusiasm in gaining a knowledge of the use of basic computer tools.
- G10.** Having a basic knowledge of another language, especially in regard of technical matters related to Veterinary Science.
- G11.** Keeping their knowledge, abilities and awareness of these professional skills up to date by means of a process of life-long learning.

The **specific skills (knowledge)** set out in the Memorandum are getting a solid knowledge of:

1. The sciences upon which the activities of the veterinary profession are based.
2. The structure and functions of healthy animals, their rearing, reproduction and hygiene in general, and of their feeding, including the technologies applied to the manufacture and storing of feeds that meet their requirements.
3. The behaviour and protection of animals.
4. The causes, nature, course, effects, diagnosis and treatment of animal diseases, whether individual or group, including a particular knowledge of those diseases that can be transmitted to humans.
5. The principles of preventive medicine, and of the promotion of animal health and welfare.
6. The health aspects and the technology applied to the manufacture and sale of feeds, and of foodstuffs of animal origin intended for human consumption.
7. The organization and management in so far as they apply to veterinary practice.



8. The scientific method and of the contribution of basic and applied research to all aspects of veterinary science
9. The adequate practical clinical experience of a suitable type under appropriate supervision.
10. The laws, standards and administrative regulations relating to all the subjects listed above.

The **professional or specific skills (know-how)** are:

- P1.** To draw up medical records and carry out clinical check-ups of animals.
- P2.** To collect and despatch all types of samples with the relevant accompanying report.
- P3.** To use basic analytic techniques and interpret their clinical, biological and chemical results.
- P4.** To diagnose the commoner diseases through the use of various general and instrumental techniques, including necropsy, while respecting current safety measures.
- P5.** To identify, control and eradicate animal diseases, paying special attention to those with obligatory notification and to zoonoses, in this case following the relevant procedures in accordance with current standards.
- P6.** To attend to emergencies and carry out veterinary first aid.
- P7.** To apply the most appropriate medical, surgical and therapeutic treatments to animals, following the standards for the use of pharmaceutical products.
- P8.** To apply basic care such as to ensure the correct development of the reproductive cycle and the resolution of obstetric problems.
- P9.** To advise on and put into practice epidemiological studies and therapeutic and preventive programmes in accordance with the standards for animal health and welfare, and for public health.
- P10.** To evaluate and interpret production and health parameters for a group of animals, considering both financial and welfare aspects.
- P11.** To use protocols intended to modify and optimizer systems of animal production.
- P12.** To respect and ensure that others respect animal welfare in all professional activities related to the handling of animals.



- P13.** To minimize the risks of contamination and cross-infections in animal housing and in the open.
- P14.** To carry out ante- and post-mortem inspections of animals, and inspect foods intended for human consumption.
- P15.** To carry out sanitary checks on the various types of businesses and establishments that sell raw or prepared food. Set up and supervise systems for quality control.
- P16.** To perform risk assessments, including environmental and biohazard studies, and evaluate and manage them.
- P17.** To apply food technologies to the preparation of foodstuffs for human consumption.
- P18.** To undertake technical and financial advisory and management tasks for businesses in an area linked to veterinary science within a context of sustainability.
- P19.** To put into practical application the principles and methods of veterinary science, together with the acquired skills and competences described in the general objectives for the degree.

The Board for the Primary Degree in Veterinary Science, and in the last instance the Veterinary Faculty Board, is the body that proposes modifications to the Memorandum for approval, and thus to the aims when relevant.

On the basis of data relating to the satisfaction expressed by the various interest groups relating to veterinary qualifications, the Quality Board of the Veterinary Faculty, the Board for Co-ordination of the Primary Degree in Veterinary Science and the Teaching Board of the Veterinary Faculty can propose actions for improvements, among which might be a review of the aims and objectives, as also the degree to which they are being achieved. For its part, the University of León, through its assessment and quality office, employs a number of tools to ensure monitoring of degrees and qualifications. This monitoring process must reflect all the variables influencing the progress of qualifications, together with any modifications deemed necessary for better functioning, in this case of the primary degree in veterinary science.



## 1.2. COMMENTS

In your view, to what extent are the objectives achieved?

The monitoring process for putting in place the course leading to the primary degree in Veterinary Studies that was undertaken by the Faculty itself was externally assessed by the Quality Assurance Agency for the University System in Castilla and León (ACSUCYL) in 2012, and received a positive evaluation. This demonstrates that over the first two years of the programme the objectives set were achieved. This monitoring process should culminate in a final complete recognition of the course that will take place in 2016. Nevertheless, the internal mechanisms for ensuring the quality of teaching in the Veterinary Faculty must continue to apply their procedures for gathering information about veterinary qualifications and for verifying the degree of achievement of the aims in later academic years.

What, in your view, are the main strengths and weaknesses of the Faculty?

The Veterinary Faculty of León is the only existing in the autonomous community of Castilla y León, which is not only the largest region of Spain, but as well the largest region of all European Union. The Faculty has 162 years of history, is the oldest at the University of León and its core, and has always been a city symbol. The faculty benefits from both experience and tradition, and enjoys social and institutional support.



At the Veterinary Faculty of León a consolidated teaching team develops their teaching and research activities, with a high level of preparedness, credited for their years of work in this center, and completed with their high scientific and research levels, both nationally and internationally recognized.

However, the budget for the operation and development of educational activities aimed at the training of veterinarians is quite limited. The average age of the teaching staff of the Faculty, abnormally high, together with the lack of appointments of young teachers, is one of the main weaknesses which, in the current conditions, can significantly compromise the future of the Veterinary Faculty.

The working model in the teaching Veterinary Hospital must undergo an review for the optimization of the excellent resources offered for clinical training of students, making the most of clinical cases in the different animal species, and integrating both clinical and teaching activities in a model consistent with the curriculum and the objectives of veterinary education in the Faculty.

### 1.3. SUGGESTIONS

If you are not satisfied with the situation, please list your suggestions for change in order of importance and describe any factors which are limiting the further development of your Faculty.

It would be advisable to establish assessment systems outside the university ambit, that is, systems made up of professionals, associations, businesses and other interested parties linked to the various fields of veterinary activity so as to establish a feedback mechanism. This is seen as highly positive for the evaluation of the achievement of the aims of the León Veterinary Faculty.





## CHAPTER 02

# ORGANIZATION

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## CHAPTER 02. ORGANIZATION

### 2.1. FACTUAL INFORMATION

#### Details of the Faculty

Name of the Faculty: Faculty of Veterinary

Address: Calle Profesor Pedro Cármenes, s/n. Campus Universitario de Vegazana, 24071 León (Spain)

Telephone: +34 987 291 200

Telephone: +34 987 291 195

Fax No.: +34 987 291 194

E-mail addresses:

Secretary of the Dean's Executive Team: [fveadm@unileon.es](mailto:fveadm@unileon.es)

Dean: [fvedec@unileon.es](mailto:fvedec@unileon.es)

Website: [www.veterinaria.unileon.es](http://www.veterinaria.unileon.es)

Title and name of head of the Faculty: José Gabriel Fernández Álvarez, DVM, PhD, Professor of Veterinary Anatomy.

Is the establishment within a university? If so, please give address of the university

University: University of León

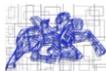
Address: Avda. de la Facultad de Veterinaria, 25. 24071 León, Spain

Phone +34 987 291 000

Fax No +34 987291 614

E-mail: [rectorado@unileon.es](mailto:rectorado@unileon.es)

Website: [www.unileon.es](http://www.unileon.es)



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Details of the competent authority overseeing the establishment

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Education Department of the Regional Government of Castilla and León.

Spanish Ministry of Education, Culture and Sports.

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Indicate the rules concerning the appointment of the elected officials of the establishment (Dean, Sub-Dean, Heads of Department, etc.)

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The regulations governing the election of the management structures for the Faculty and its Departments are to be found in the Statutes of the University of León and in the Rules for Internal Governance of the Veterinary Faculty of the University of León. The Dean of the Faculty is elected by the Faculty Board for a period of four years, and may be re-elected one single time. The Dean must be a full-time member of the academic staff.

The Vice-Deans and the Faculty Secretary are proposed by the Dean once elected and appointed by the Chancellor of the University.

Heads of Department are elected by Departmental Boards from among the academic staff of the relevant Department. Their term of office is four years, and they may be re-elected for a further four years one single time.



Provide a diagram of the administrative structures showing the Faculty in relation to the university and ministerial structure of which it is part

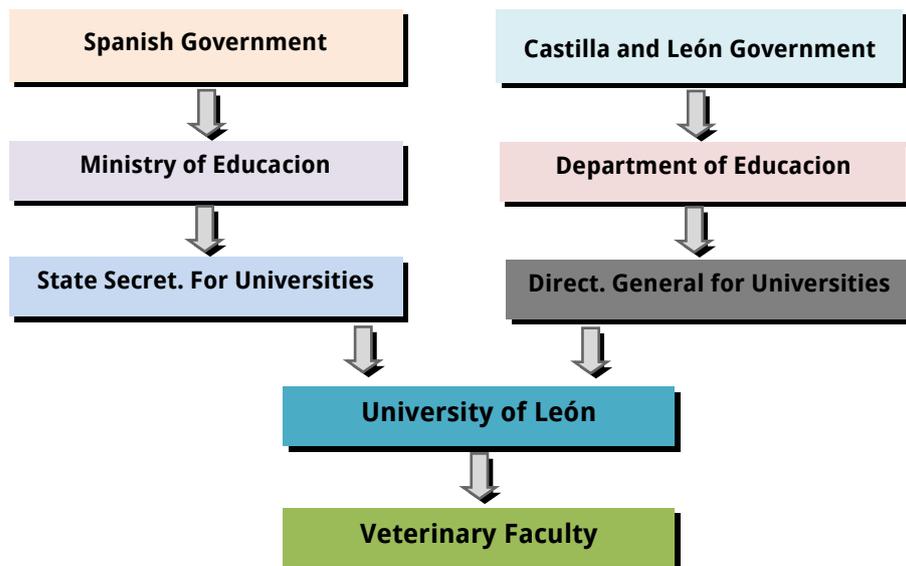


Figure 2.1. Administrative flowchart showing the place of the Veterinary Faculty within the hierarchy of the Spanish government and the Castilla and León Regional government.

The Veterinary Faculty of León was founded in 1852 and forms part of the University of León. It is one of the oldest Faculties in Spain. The University of León is a public university founded in 1979, which at a national level is dependent upon the Spanish Ministry of Education, and at the regional level upon the Education Department of the Autonomous Government of Castilla and León. It has two campus sites in the Province of León, the main campus being situated in the City of León, capital town of the province, and the second in Ponferrada.

The main data on the structure, organization, centres, staff and students of the University of León are shown in Table 2.1.

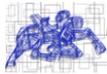


Tabla 2.1. ULE Faculties, Schools, and other Centers

Centers	13
Faculties	8
University Schools	4
Associated University Schools	1
Departments	26
Undergraduate Students	11,758
Universitary Institutes	11
Students in Masters Programmes	565
Students in PhD Programmes	2235
Foreign students (incoming)	433
Academic and Research Staff	922
Support Staff	510
Degrees offered	35
Official Postgraduate Programmes	22
PhD Programmes	14
Masters Programmes	22
Budget (2014)	89,228,881 €

Provide a diagram of the internal administrative structure of the Faculty itself (councils, committees, departments, etc.)

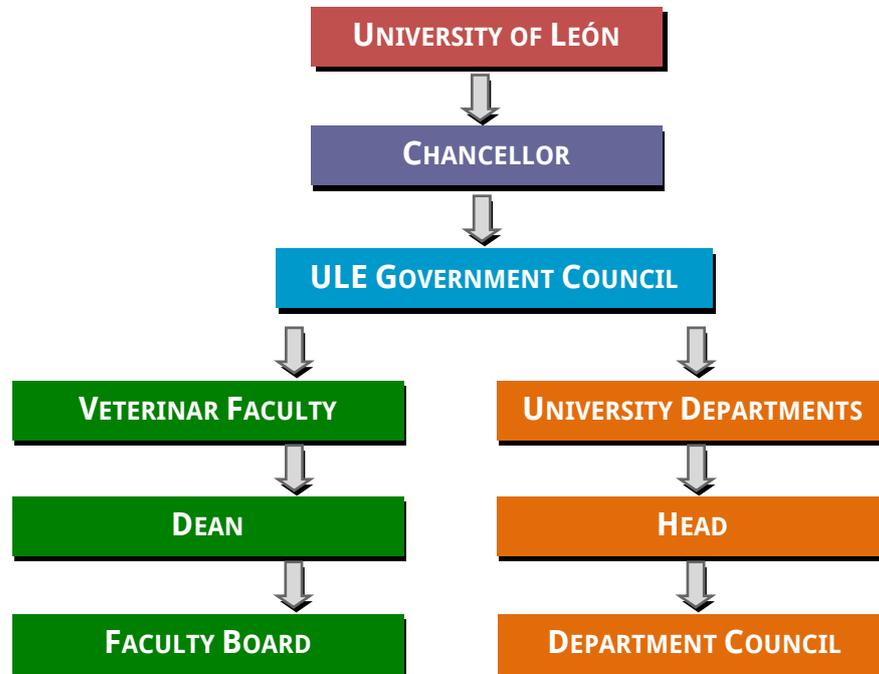
Current Spanish legislation on universities (the university organization law or "L.O.U.") defines the organization of Spanish universities on the basis of bodies that have specific competences in the carrying out of teaching and research activities (Figure 2.2):

**A. Faculties and University Schools:** these are responsible for organizing and supervising the teaching work of universities.

**B. Departments:** these are groupings directly involved in research and teaching, at both undergraduate and post-graduate level.



There are, in addition, central university services that provide support for Centres and Departments.



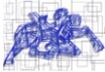
**Figure 2.2. Organization of the Faculty of Veterinary and the Departments**

### A. FACULTY

Faculties establish the general lines of academic policy and the specific plans for teaching. They also lay down the basic criteria for monitoring the training and preparation of students.

The functions of the Veterinary Faculty in León are stated in Article 5 of its Rules for Internal Governance:

- a) To establish the specific plan for teaching for each academic year and to determine the organization and distribution of all the resources assigned for carrying out this activity.
- b) To co-ordinate the programmes for teaching the established syllabuses.



- c) To co-ordinate and supervise the academic activities undertaken by teaching staff within the framework of the respective syllabus.
- d) To promote and co-ordinate any courses that may be set up outside the specific remit of a single Department.
- e) To provide material aid to Departments for putting in place and completion of post-graduate studies.
- f) To undertake the complementary administrative management of teaching activities organized by the Faculty.
- g) To encourage and co-ordinate the development of academic, scientific and cultural activities tending to improve the quality of teaching, as well as the training and professional qualification of members of the Faculty and their rounded human competences.
- h) To contribute to the gaining of social benefits from the knowledge derived from the courses taught.

The Dean is the highest authority for this section of the University, and is additionally *ex officio* Chair of the Faculty Board.

The Vice-Deans direct and co-ordinate all those activities of the Faculty which are delegated to them by the Dean. They also act in the Dean's place in cases of absence or illness.

The Secretary is the Faculty's recording officer. As such, the Secretary draws up and ensures the safe-keeping of all minutes and official documents created by or deposited with the Faculty, and issues, under the Dean's supervision, any relevant certificates. There is also a member of the University's administrative staff who is seconded to act as Head of Administration for the Faculty.

Dean: José Gabriel Fernández Álvarez.

Vice-Dean I: María Teresa Carbajo Rueda.

Vice-Dean II: Teresa María López Díaz.

Academic Secretary: María José Ranilla García.

Head of Administration: Esperanza Aláiz de la Puente.



## B. DEPARTMENTS

There are five separate Departments within the Faculty, as listed below:

- ▶ Department of Animal Health
- ▶ Department of Animal Production
- ▶ Department of Biomedical Sciences
- ▶ Department of Food Hygiene & Food Technology
- ▶ Department of Veterinary Medicine, Surgery and Anatomy

Besides these Departments, the Faculty is linked with three further Departments of the University of León, also located on the main Campus. These are: Molecular Biology (Biochemistry Section), Applied Chemistry and Physics, and Biodiversity.

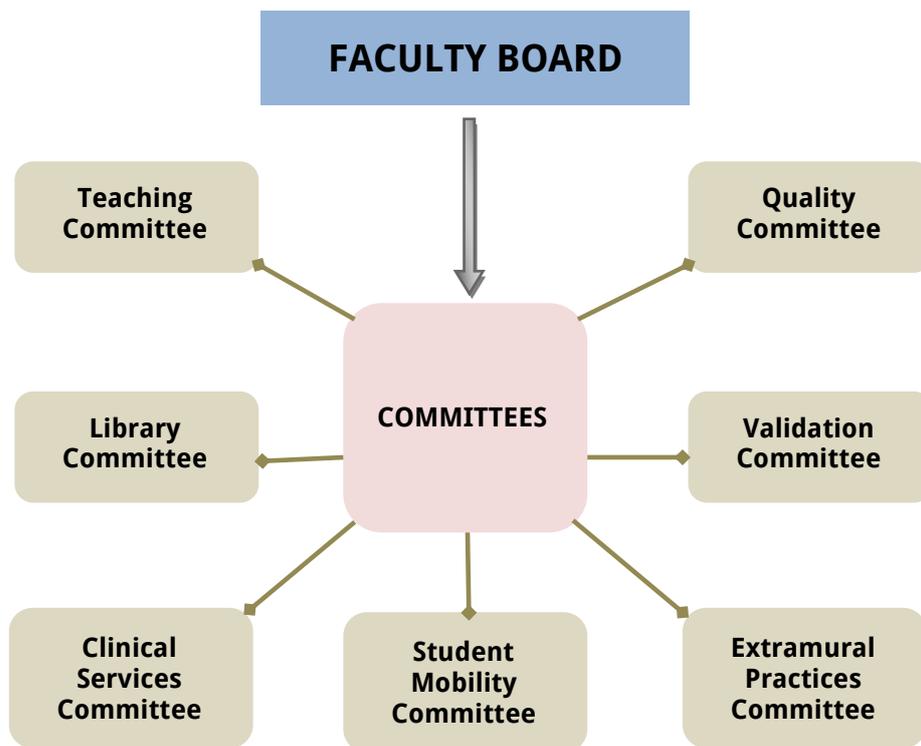
The Departments are the bodies charged with co-ordinating the teaching within their fields of study in accordance with the teaching programmes of the University of León, and with supporting the research and teaching activities and initiatives of their research and teaching staff. Hence, they are entrusted with the following matters:

1. Programming and organizing teaching activities in accordance with the various fields of study that are assigned to them, and organizing the centres where this teaching is performed.
2. Training teaching and research staff in the form of tutors and scholarship holders.
3. Making proposals to the relevant bodies within the University in respect of the provision of teaching and research staff such as to guarantee the quality of education and investigation, as also with regard to support staff for administrative and service duties.
4. Making proposals to the competent management bodies in respect of the provision of sufficient material resources to enable their activities to be performed appropriately.



5. Making proposals and promoting agreements so as to allow students to undertake supervised practical work on placement related to the contents of their syllabuses.
6. Participating in the selection of contract staff for teaching and research.

Describe, briefly the responsibilities, constitution and function of the main administrative bodies (councils, committees, etc.)

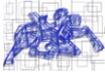


**Figure 2.3. Organizational scheme of the Faculty Board and Committees**

The Faculty Board has the following Committees, in order to render the Faculty's functioning more efficient and to carry out particular tasks:



- Executive Committee
  - Library Committee
  - Teaching Committee
  - Clinical Services Committee
  - Extramural Practices Committee
  - Student Mobility Committee
  - Validation Committee
  - Quality Control Committee
- a) The Executive Committee assists and advises the Dean in all areas falling within the relevant remit and resolves any problems affecting the development of the syllabus and of academic activity in general.
- b) The Library Committee is charged with the acquisition of bibliographic material for the Faculty, to the extent that finances permit. It strives to make consultation of such material easy for the students and staff of the Faculty.
- c) For each year of courses a member of the academic staff acts as Year Co-ordinator. The Teaching Committee is made up of this member of staff, together with student representatives, the Faculty Secretary and the Dean or Sub-Deans. The Teaching Committee is responsible for the organization and co-ordination of teaching for the relevant year within the Faculty.
- d) The Clinical Services Committee has as its mission the co-ordination of the activities of the various clinical services offered by the Faculty. It promotes clinical practicals and ensures that the greatest possible benefit is drawn from the academic work carried out in these services.
- e) The Extramural Practices Committee co-ordinates and supervises extramural Practices and liaison with businesses, as also the subject "Practical Placement" within the Veterinary Syllabus. It collaborates in the organization and co-ordination of those subjects which incorporate outside academic work that are taught in the Faculty.
- f) The Student Mobility Committee deals with matters arising from the exchange of students with other universities. It is responsible



for the student mobility programmes of the Faculty in those aspects which are deemed relevant to it.

- g) The Validation Committee considers and rules on requests from students for qualifications and studies undertaken elsewhere to be recognised or credited, in accordance with the specific rules on this matter of the University of León.
- h) The Quality Control Committee verifies and ensures compliance with the Faculty's internal quality control system. It formulates annual objectives for quality and carries out monitoring through indicators associated with established procedures.

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Indicate the involvement of the veterinary profession and general public in the running of the Faculty

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The Social Council of the University of León is the body legally established to channel participation by society in general in the University of León, contributing to improve the quality of services offered by the University and the progress of the society in of which it is a part (Spanish Basic Law 6/2001 on Universities, Law 3/2003 on the Universities of Castilla and León, and Statutes of the University of León).

The Social Council of the University is essentially made up of people from cultural, professional, financial, labour and social contexts who are not members of the university community. It draws up an annual action plan, principal features of which include:

- Promoting relationships between the University and its cultural, professional, financial and social context in such a way as to support the quality of university activities and ensure contributions from the University to sustainable development of its local and regional areas.
- Promoting collaboration with Public Administrations and private businesses and bodies.



- Approving, on the basis of reports from the University's Governing Body, any accords or agreements between the University and Health Institutions, or other public or private institutions or bodies such as will develop teaching and research.
- Encouraging the establishment of links between the University and other public or private bodies, businesses, foundations or individuals with the aim of maintaining contacts and gaining sponsorship for the academic institution.

The Veterinary Faculty in León maintains flexible relationships with the Official Branches of the College of Veterinarians in the region, and with the General Council of the Spanish College of Veterinarians. Many of the academic staff of the Faculty are also members of an Official Branch of the College of Veterinarians, which facilitates such collaboration. There is a representative of the Faculty on the Management Board of the León Official Branch of the Spanish College of Veterinarians (Professor Ángel Alonso Díez).

A large number of veterinary professionals working for public and private institutions all round Spain (for instance, clinics, livestock farms and laboratories) act as *in situ* tutors or supervisors for students who are on placements or doing practicals outside the Faculty, which gives students valuable contacts with the profession.

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## 2.2. COMMENTS

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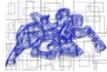
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Add any comments on the organization and functioning of the Faculty that you feel useful for completing the description

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The legally binding Spanish Regulations for Universities tend to lead the functions of the Dean's team to be excessively concentrated on administrative matters, with very few opportunities to intervene in the inter-departmental co-ordination of teaching. This is especially so



when it is a question of multi-disciplinary, integrated clinical practical work.

The Veterinary Faculty has no capacity to take decisions about the managing of the resources for teaching assigned by the University, since these are arranged at a Departmental level. The Dean and the Heads of Department have a rather similar status with regard to their relationships with the University's central organs of governance, which can cause difficulties when it comes to taking strategic decisions in respect of teaching programmes.

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### 2.3. SUGGESTIONS

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If you are not satisfied with the situation, please list your suggestions for change in order of importance and describe any factors which are limiting the further development of your Faculty

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It would be desirable for there to be appropriate adjustments in the Regulations for the Spanish university system. These should be such as to lead to reorganization of the structures and bodies within universities (Departments, Centres, Faculties, Deputy Vice-Chancellor's Offices, University Management) in an attempt to attain a system able to programme and develop shared objectives.

There should be recognition and encouragement for the role of the academic staff, giving them a greater degree of responsibility. There should be reconsideration of the criteria for selecting academic staff, incorporating a system of independent external evaluation that would guarantee the hiring of personnel with good scientific and professional qualifications.

There is a lack of regulated structures or arrangements that might allow the Veterinary Faculty to obtain information from veterinary



professionals. This might be remedied through the establishment of a Committee for this specific purpose made up of veterinary professionals and the members of the Faculty's governing bodies, so that links between the world of academe and professional practice could lead to improvements in veterinary training.





**CHAPTER 03**

**FINANCES**

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## CHAPTER 03.FINANCES

### 3.1. FACTUAL INFORMATION

#### 3.1.1 GENERAL INFORMATION

Indicate whether the Faculty's current financial model (system) meets the Faculty's mission. In addition please specify:

How the allocation of funding (including public funding) to the Faculty is determined, and by what body

If the allocation of funds, or any significant proportion of it, is linked to a particular factor (e.g. student numbers, research output), please describe this

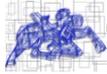
How the basis for funding the Faculty compares with those teaching other courses (e.g. whether veterinary training receives a higher budget weighting compared to other disciplines). How the allocation of funds within the Faculty is decided

What are the mechanisms for funding major equipment and its replacement?

The mechanism(s) for funding capital expenditure (e.g. building work, major items of equipment) and how decisions are taken in this matter

The mechanism(s) to provide the necessary support for building maintenance and how decisions are taken in this matter

The Faculty's current financial model is imposed by the University of León, on the funding approved by the Autonomous Government of Castilla and León in its annual budget. In addition to funds paid annually by the Regional Government, the University of León also obtains income from tuition and registration fees and fees for certificates and other official documents.



The Organic Law on Universities sets strong emphasis on the economic and financial autonomy of Universities; Article 2.2h of this law recognizes, in principle, the right of each University to draw up, approve and manage its own budget, and to administer its assets. Like the other University faculties, the Veterinary Faculty operates a special system: most major items of expenditure (staff salaries and costs, services and work contracted out to external companies, maintenance, waste collection and other services) are managed and paid directly by the University's Central Services.

The Budget of the University of León for the year 2014 reached 86 million €. 75% of this revenue comes mainly from transfers from regional administration, and 22% are collected from student taxes. In this sense, it is remarkable the important reduction in the university's budget (11%) compared to 2011, when it reached about 100 million €. Regarding the budget for 2014, the greatest part is dedicated to staff cost (64%), and the rest is distributed in goods and services (15%) and investments and research (15%).

In the University general budget chapter includes a section allocated to pay the teaching expenses of the centers (402.000 €), separated from the teaching expenses of the departments (940.000 €), which represent the 30% and 70%, respectively, of the allocation for financing the teaching expenses. A fixed amount is allocated to the Veterinary Faculty (the same for all centers), plus a variable amount related to the number of students and subjects registered.

A further point to note is the Teaching Farm, to which the University of León dedicates a sum of 402,710 €



### 3.1.2. INFORMATION ON EXTRA INCOME

What percentage of income from the following sources does the veterinary teaching Faculty have to give to other bodies (university, etc.)?

- ➔ Clinical or diagnostic work
- ➔ Research grants
- ➔ Other (please explain)

A portion of the extra income, derived from the sources listed below, must be reinvested in the University, as follows:

- ▶ Diagnostic and External Services (Article 83 of the Spanish Universities Law): 15% of income must be reinvested in the University.
- ▶ Research grants / projects: 10 % of income from this source is reinvested in the University to cover indirect costs.
- ▶ Other income (Continuing Education, Diplomas, etc.): 15% of registration fees are reinvested in the University.

Please indicate whether students:

- ➔ Pay tuition/registration fees
- ➔ How much these are
- ➔ How they are decided
- ➔ How the funds are distributed

All students, regardless of any grants or bursaries they may be awarded to cover registration fees, are required to pay the fees established by the University. Fees for the academic year 2014/15 were 30.25 euros/credit. Students who have to retake a subject are



required to pay a surcharge between 50% and 76% of the initial fee, depending on whether it is their first, second, or third resit. Registration and tuition fees for higher education are established by the Regional Government of Castilla and León, and must lie within the limits stipulated by the Spanish Ministry of Education.

### 3.1.3. OVERVIEW INCOME (REVENUE) AND EXPENDITURE

**Table 3.1. Income/Revenue (€)**

Year	State (government)		Income generated by the Faculty	
	To university administered outside the Faculty	Direct to Faculty	Income from services provide (VTH)	Research
2014	89,228,881	6,572,426	120,000	1,125,008
2013	88,272,158	6,501,955		1,316,613
2012	86,005,195	6,334,975	185,927	1,540,981

**Table 3.2. Expenditure (€)**

Year	Pay	Non Pay			Total
	Salaries	Teaching support	Research support	Clinical support	
2014	5,242,764	1,128,112	418,500	297,500	7,086,876
2013	5,429,295	1,309,200	414,012	227,625	7,380,132
2012	4,798,885	1,543,178	403,380	300,000	7,045,443

### 3.2. COMMENTS

Teaching establishments never have enough finance. Please comment on any of the "Guidelines and Requirements" that are particularly difficult to



fulfill in the present financial situation. Please make any comments that you feel would help the experts concerning the Faculty's finances

What is your number one priority for the use of any increased funding?

Comment on the degree of autonomy and flexibility available to the Faculty in financial matters

Comment on the percentage of income from services that the Faculty is allowed to retain for its own use, and in particular on the extent to which loss of this income acts as a disincentive for the services concerned

Please make any other general comments that you feel would help the experts concerning the Faculty's finances

The main difficulties concerning the present financial situation of the Veterinary Faculty are:

### **Staff**

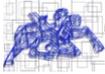
The current financial situation in the Universities prevents the incorporation of new teaching staff which is considered necessary to guarantee the teaching needs with a minimum level of quality. This fact is especially relevant due to the adaptation of the new curriculum to the European Higher Education Area (EHEA), because the implementation of the Veterinary Degree requires an increase in the teaching staff.

### **Operating costs**

The budget dedicated to teaching activity needs to be increased. In many occasions, teachers have to adjust their budgets for the subjects or even to resort to their own research funding.

### **Equipment**

The Faculty has not financial autonomy to invest in equipment. Large investments for large equipment require external funding, by means of applications to regional or national competitive calls for scientific infrastructure or research projects.



### **Infrastructures (Buildings)**

As with for the equipment, the Faculty lacks of autonomy to invest in other infrastructures as buildings, installations, etc. Requirements should be addressed to the University of León, which through the economic commission authorize or refuse the proposal. Education Service of the Junta de Castilla y León develops an investment program for constructing new buildings, remodeling old ones, and works in general, which is paralyzed since 2011, due to the economic adjustment taking place in the autonomous community of Castilla y León.

### **3.3. SUGGESTIONS**

If you are not satisfied with the situation, please list any shortcomings and provide suggestions -in order of importance and describe any factors which are limiting the further development of your Faculty

Given that the University of León depends on public funds, and it is therefore subject to the Contract-Programme signed with the Castilla and León Government, the possibilities of relevant change are limited.

Nevertheless, our principal suggestions are:

A model budget in which the University of León which prioritizes in a greater extent the experimental character of the Veterinary Degree.

A model budget in which the University of León takes into account specific activities needed for veterinary education such as mobile clinic, the maintenance of various buildings with specific characteristics (Veterinary Teaching Hospital, Farm, etc.).



**CHAPTER 04**

# **CURRICULUM**

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## CHAPTER 04. 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

Describe the degree of freedom that the Faculty has to change the curriculum

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)

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

All Higher Education studies in Spain are regulated by the Organic Law on Universities and the Common General Guidelines on Curricula and official University Degrees valid throughout Spain, and by other laws applicable throughout the country. Following a decision by the Spanish Parliament, the centralized administration of education is gradually being devolved to the autonomous regional governments. However, the Ministry of Education, Culture and Sports and the Ministry of Economy and Competitiveness retain the right to propose and implement Government policy with regard to universities, scientific research, technological development and innovation in all sectors, and are also responsible for coordinating the work of state-sponsored public research bodies. The autonomous regional governments, for example the Regional



Government of Castilla y León, are responsible for the specific policies required for funding public universities in the region, and also for minor legislation. Regional governments thus have a hand in the curriculum design.

At the present academic course 2014-2015, the five years of the 2010 curriculum are taught for the first time. On the other side, the curriculum 2004 is also available for students sitting exams. For that reason, the present self-evaluation report only contains a brief description of 2004 curriculum.

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#### 4.1.1. THE 2004 CURRICULUM

The curriculum of 2004 leading to the award of the degree in Veterinary Medicine at the University of León was officially approved by virtue of a Resolution passed on 28th November 2003 (published in BOE, 20th January 2004). This curriculum was designed in accordance with the provisions of Royal Decree 1497/1987, of 27th November (BOE, 14 December 1987), of the Ministry of Education, on "Common Guidelines on Curricula for official Degrees recognized throughout Spain". Specifically, provisions are adapted to Royal Decree 1384/91, of 30th August, establishing the official University Degree in Veterinary Medicine and the specific general guidelines pertaining to the curricula to be completed in order to qualify for that degree, as laid down in Directive 78/1027/EEC, of 18th December 1978 (since replaced by Directive 36/2005/EU).

In accordance to the "Common General Guidelines on Curricula" (Royal Decree 1497/1987), the 2004 Curriculum is divided into two cycles. The first cycle (1st and 2nd year) covers the basic subjects and provides general training, whilst the second cycle (3rd, 4th and 5th years) is devoted to pre-specialization and preparation for professional activity. The total study load, including practical sessions, ranges from 60 to 90 credits per academic year (1 credit equals 10 teaching hours). Course content, in both the first and second cycles, is divided into: core subjects (which must be included in all curricula leading to the same official degree), compulsory



subjects (freely established by each university) and elective subjects (chosen by the student from those offered by the University, thus allowing the flexible configuration of the curriculum). The study load, in credits, devoted to core subjects must account for a minimum of 30% of the full study load in the first cycle, and a minimum of 25% in the second cycle. Credits for elective subjects must account for no less than 10% of the total study load. The General Guidelines on Veterinary Studies (Royal Decree 1384/1991, 30th August; BOE, 30th September 1991) state that the study load will range from 20 to 30 hours per week, including practical sessions. A minimum of 300 credits must be obtained in order for the degree to be awarded.

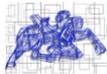
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#### 4.1.2. THE 2010 CURRICULUM

More recently, new regulations have been passed, such as Royal Decree 1393/2007, of 29th October (BOE, 30th October 2007), Royal Decree 861/2010, modifying Royal Decree 1393/2007, of 3<sup>rd</sup> July 2011, defining the new regulation for Official Spanish Higher Education Studies, and replacing Royal Decree 1497/1987, and Order ECI/333/2008 (13th February; BOE, 15th February 2008) defining the general requirements for official university degrees entitling the holder to work as a veterinarian. The new curriculum has been, therefore, reviewed to ensure its adaptation to the new regulatory framework.

Within this new regulatory framework, a new process has been launched for the creation, modification and standardization of university degrees. At the University of León, the newly-established Syllabus Committee has been responsible for formulating a proposal to changes to the Curriculum. That proposal was submitted to the Faculty Board for approval, and thereafter, it was submitted to the National Agency for Quality Assessment and Accreditation that approved the proposed changes. The new Curriculum was submitted to the University Governing Council and to the relevant authorities of the Regional Government of Castilla y León.

Subject syllabuses are structured in accordance to Directive 36/2005/EU, the Law 44/2003 (BOE 22nd November 2003) about planning of health professions. Moreover, it has been taken into



account the framework document of the European Veterinary Federation (FVE/00/011) about the professional structure.

In the preparation of this Plan of Studies, in addition to considering the guidelines directed by the BOE, we have taken into account the information contained in the “White Book of Veterinary” and the guidelines derived from EAEVE.

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## 4.2. POWER OF SUBJECTS AND TYPES OF TRAINING

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### 4.2.1. POWER OF SUBJECT

Core” subjects taken by every student

“Electives” which each student must select from a list of permissible subjects

Obligatory extramural fieldwork

The 2010 curriculum comprises a total study load of 300 ECTS credits (European Credit Transfer System; 1 ECTS credit = 25 hours of learning of student, giving a total of 7500 hours). Core subjects (which all students must take) account for the 98 % (294 credits = 7350 hours) of the total and electives (designed by each Faculty) account for a 2 % (6 credits = 150 hours). The 294 credits for core subjects include obligatory extramural fieldwork. The latter is composed of 24 ECTS credits (600 hours) for obligatory extramural fieldwork.

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### 4.2.2. TYPES OF TRAINING

This section makes a distinction between curriculum hours to be taken by every student and those offered as electives or within a given track. Specific information is also requested on subjects other than those specified in Table 4.1 The different types of training used



are shown and explained in Tables 4.1 and 4.2, and their respective foot notes.

**(A) Lectures** convey theoretical knowledge. Lectures are given to an entire or partial annual intake of students. Teaching may be with or without the use of teaching aids or of demonstration animals or specimens. The essential characteristic is that there is no active involvement of the students in the material discussed. They listen and do not handle.

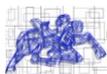
**(B) Seminars** provide theoretical tuition together with more active student involvement, on specific matters relevant to the subject syllabus. Seminars (sometimes called tutorials or supervised group work) are teaching sessions directed towards a smaller group of students during which they work on their own, or as a team, on part of the theory, prepared from manuscript notes, photocopied documents, articles and bibliographic references. Information is illustrated and knowledge extended by the presentation of audio-visual material, exercises, discussions and, if possible, case work.

**(C) Self-directed learning** includes individual tutorials and supervised group work (preparation of projects with the teacher).

**(D) Laboratory and desk based work** includes teaching sessions where students themselves actively perform laboratory experiments, use microscopes for the examination of histological, microbiological or pathological specimens. It also includes work on documents and idea-formulation without the handling of animals, organs, objects or products (e.g. essay work, clinical case studies, handling of herd-health monitoring programmes, risk-assessment computer-aided exercises).

**(E) Non-clinical animal work** are teaching sessions where students themselves work on normal animals, on objects, products, carcasses etc. (e.g. animal husbandry, ante mortem and post mortem inspection, food hygiene, etc.) and perform dissection or necropsy.

**(F) Clinical work** are strictly hands-on procedures by students which include work on normal animals in a clinical environment, on organs and clinical subjects including individual patients and herds, making



use of the relevant diagnostic data. Surgery or propaedeutical hands-on work on organ systems on cadavers to practice clinical techniques are also classified as clinical work.

**(G) Other training hours** include: examinations, outside field trips to farms, industries or other (non-clinical) plants, as well as unsupervised e-learning (teletuition and online learning), unsupervised self-learning, etc.

### 4.3. UNDERGRADUATE CURRICULUM FOLLOWED BY ALL STUDENTS

#### 4.3.1. CURRICULUM HOURS

The 2010 curriculum adapted to the European Area for Higher Education (EAHE), includes self-directed training. A major component of this new curriculum is the adoption of a student-centred learning model and the formulation of proposals on modularity and transversal nature of university subjects. The introduction of the European Credits Transfer System has meant changes in teaching/learning systems; the student is required to adopt a new way of learning, becoming actively involved in his own training and developing skills adapted to future professional needs. The acquisition of these generic and specific skills should be stressed throughout the degree course, and requires coordination of the various subjects.

Table 4.1. Overall Credit structure and organization of the CURRICULUM

YEAR	CORE SUBJECTS	LECTURES	PRACTICES	ELECTIVE SUBJECTS	TOTAL
FIRST	57	28.2	28.8	3	60
SECOND	57	31.9	25.1	3	60
THIRD	60	34.2	25.8	0	60
FOURTH	60	25.2	34.8	0	60
FIFTH	60	17.5	42.5	0	60
<b>TOTAL</b>	<b>294</b>	<b>133.7</b>	<b>160.3</b>	<b>6</b>	<b>300</b>



Table 4.2. General table of curriculum hours taken by all students

Year	Hours of training							Total
	Theoretical training			Supervised practical training			Other(G)	
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non-Clinical work (E)	Clinical work (F)		
<b>First</b>	252	48	38	112	67	20	48	<b>585</b>
<b>Second</b>	299	33	20	167	8	9	41	<b>577</b>
<b>Third</b>	317	43	12	90	5.5	81.5	51	<b>600</b>
<b>Fourth</b>	265	45.5	22	98	13	126	25.5	<b>595</b>
<b>Fifth</b>	156	33	29	207	157	261	27	<b>870</b>
<b>TOTAL</b>	<b>1,289</b>	<b>202.5</b>	<b>121</b>	<b>654</b>	<b>250.5</b>	<b>497.5</b>	<b>192.5</b>	<b>3,227</b>

Lectures (A), Seminars (B), Self-directed learning (C), Laboratory and desk based work (D), Non-clinical work (E), Clinical work (F) and Other (G): see 4.2.2 p. 67.

Table 4.3. Core and mandatory subjects within the CURRICULUM by year and taken by every student

Year	Code	Subject (abridged English translation)	4-month period	Total hours	Theoretical hours	Practical hours
<b>First</b>	106001	Basis of Physics and Chemistry	1	60	31	29
	106002	Anatomy I	1	90	42	48
	106003	Physiology I	1	60	34	26
	106004	Biochemistry	1	90	64	26
	106005	Cytology and Histology	2	60	12	48
	106006	Anatomy II	2	60	26	34
	106007	Physiology II	2	60	34	26
	106008	Agronomy	2	60	36	24
	106009	Introduction to Veterinary	2	30	5	25

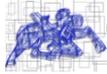


Table 4.3.(cont.)

Year	Code	Subject (abridged English translation)	4-month period	Total hours	Theoretical hours	Practical hours
Second	106012	Microbiology and Immunology	1	120	68	52
	106013	Parasitology	1	60	33	27
	106014	Genetics	1	60	37	23
	106015	Biostatistics and Epidemiology	1	60	35	25
	106016	General Pathology	2	65	40	25
	106017	General Pathological Anatomy	2	65	28	37
	106018	Ethnology and Ethology	2	80	50	30
	106019	Veterinary Pharmacology	2	60	32	28
Third	106022	Clinical Propaedeutic	1	60	30	30
	106023	Toxicology and Legal Veterinary	1	90	57	33
	106024	Radiology, Anaesthesiology and Surgical Pathology	1	90	50	40
	106025	Reproduction and Obstetric Basis	1	60	30	30
	106026	Rural economics and veterinary business management	2	60	33	27
	106027	Animal Nutrition	2	80	45	35
	106028	Animal Breeding and Improvement	2	70	40	30
	106029	Animal Production and Health	2	90	55	35
Fourth	106030	Medical Pathology I	1	80	34	46
	106031	Special Pathological Anatomy	1	70	0	70
	106032	Infectious Diseases I	1	60	34	26
	106033	Parasitic Diseases	1	90	49	41
	106034	Medical Pathology II	1	60	26	34
	106035	Surgical Clinic	2	75	30	45
	106036	Obstetric and Reproduction Pathology	2	60	28	32
	106037	Infectious Diseases II	2	60	34	26
106038	Pharmacy and Pharmacotherapy	2	45	17	28	



Table 4.3.(cont.)

Year	Code	Subject (abridged English translation)	4-month period	Total hours	Theoretical hours	Practical hours
Fifth	106039	Preventive Medicine, Health Policy and Zoonoses	1	60	40	20
	106040	Food hygiene, food inspection and food safety	1	140	75	65
	106041	Food Technology	1	100	60	40
	106042	Practicals 2 (Clinic)	2	180	0	180
	106043	Practicals 3 (Animal Production and health)	2	90	0	90
	106044	Practicals 4 (Food Hygiene, and Food Technology)	2	90	0	90
	106045	Placements	2	90	0	90
	106046	Degree dissertation	2	120	0	130
<b>TOTAL</b>				<b>3,210</b>	<b>1,370</b>	<b>1,840</b>

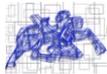


Table 4.4. CURRICULUM hours in EU-listed subjects taken by each student. The hours allotted to the various subjects in the University of León veterinary curriculum have been adapted to the UE subject listing. Specifications are shown in the table foot notes.

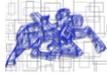
Subject	Theoretical training			Supervised practical training			Other (G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non-Clinical work (E)	Clinical work (F)		
1.BASIC SUBJECT								
a) Physics <sup>1</sup>	14	10	2.5	2	0	0	1.5	30
b) Chemistry <sup>2</sup>	14	10	2.5	2	0	0	1.5	30
c)Animal biology <sup>3</sup>	-	-	-	-	-	-	-	-
d)Plant biology <sup>4</sup>	8	0	0	6	0	0	0	14
e)Biomathematics <sup>5</sup>	11	0	0	6	0	0	3	20
<b>1. Total</b>	<b>47</b>	<b>20</b>	<b>5</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>94</b>

1. Includes hours allotted to Physics (A= 14, B= 10, C= 2.5, D= 2, G= 1.5, T= 30) as part of the subject Basis of Chemistry and Physics (A= 28, B= 20, C= 5, D= 4; G= 3, T= 60).
2. Includes hours allotted to Chemistry (A= 14, B= 10, C= 2.5, D= 2, G= 1.5, T= 30) as part of the subject Basis of Chemistry and Physics (A= 28, B= 20, C= 5, D= 4; G= 3, T= 60).
3. Although this subject is not included in the curriculum, it is developed as part of the subject Ethnology, Animal Protection and Ethnology (A= 44, B= 24, C= 2, E= 2, F= 1, G= 7, Total= 80).
4. Includes hours allotted to Plant biology (A= 8, D= 6, Total= 14) as part of the subject Agronomy (A= 36, B= 13, D= 9, G= 2, Total= 60).
5. Includes hours allotted to Biomathematics (A= 11, D= 6, G= 3, Total= 20) as part of the subject Biostatistics and Epidemiology (A= 32, D= 22, G= 6, Total= 60).



Table 4.4.(cont.)

Subject	Theoretical training			Supervised practical training			Other (G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non-Clinical work (E)	Clinical work (F)		
<b>2. BASIC SCIENCES</b>								
a)Anatomy (including histology and embryology) <sup>6</sup>	73	0	11	45	65	0	16	<b>210</b>
b)Physiology <sup>7</sup>	56	4	17	34	2	0	7	<b>120</b>
c)Biochemistry, cellular and molecular biology	54	7	5	20	0	0	4	<b>90</b>
d)Genetics (including molecular genetics)	34	1	0	22	0	0	3	<b>60</b>
e) Pharmacology	30	0	6	22	0	0	2	<b>60</b>
f) Pharmacy <sup>8</sup>	7	0	0	4	0	0	0	<b>11</b>
g) Toxicology (including environmental pollution) <sup>9</sup>	40	2	0	14	0	0	8	<b>64</b>
h) Microbiology (including virology, bacteriology and mycology) <sup>10</sup>	49	6	0	27	0	0	6	<b>88</b>
i) Immunology <sup>11</sup>	14	2	0	13	0	0	3	<b>32</b>
j) Epidemiology (including scientific and technical information, and documentation methods) <sup>12</sup>	21	0	0	16	0	0	3	<b>40</b>
k) Professional ethics <sup>13</sup>	5	4	0	0	0	0	1	<b>10</b>
<b>2. Total</b>	<b>383</b>	<b>26</b>	<b>39</b>	<b>217</b>	<b>67</b>	<b>0</b>	<b>53</b>	<b>785</b>

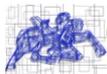


6. Includes hours allotted to Embryology and Systematic Anatomy and Neuroanatomy and Topographical Anatomy as part of the subjects Anatomy I (A= 42, E= 42, G= 6, Total= 90) and Anatomy II (A= 23, C= 8, E= 23, G= 6, Total= 60) and Cytology and Histology (A= 8, C= 3, D= 45, G= 4, Total=60).
7. Includes hours allotted to Physiology as part of the subjects Physiology I (A= 28, B= 2, C= 6, D= 18, E= 2, G= 4, Total= 60) and Physiology II (A= 28, B= 2, C= 11, D= 16, G= 3, Total= 60).
8. Includes hours allotted to Pharmacy (A= 7, D= 4, Total= 11) as part of the subject Pharmacy and pharmacotherapy (A= 15, D= 28, G= 2, Total= 45).
9. Includes hours allotted to Toxicology -including environmental pollution- (A= 40, B= 2, D= 14, G= 8, Total= 64) as part of the subject Toxicology and legal veterinary (A= 50, B= 4, D= 21, G= 15, Total = 90).
10. Includes hours allotted to Microbiology -including virology, bacteriology and mycology- (A= 49, B= 6, D= 27, G= 6, Total= 88) as part of the subject Microbiology and immunology (A= 63, B= 8, D= 40, G= 9, Total= 120).
11. Includes hours allotted to Immunology (A= 14, B= 2, D= 13, G= 3, Total= 32) as part of the subject Microbiology and Immunology (A= 63, B= 8, D= 40, G= 9, Total= 120).
12. Includes hours allotted to Epidemiology -including scientific and technical information and documentation methods- (A= 21, D= 16, G= 3, Total= 40) as part of the subject Biomathematics and Epidemiology (A= 32, D= 22, G= 6, Total= 60).
13. Includes hours allotted to Professional Ethics (A= 5, B= 4, G= 1, Total= 10) as part the subject Introduction to Veterinary profession (A= 5, B= 4, E= 20, G= 16, Total= 45).



Table 4.4.(cont.)

Subject	Theoretical training			Supervised practical training			Other(G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non Clinical work (E)	Clinical work (F)		
<b>3.CLINICAL SCIENCES</b>								
a)Obstetrics <sup>14</sup>	22	4	1	0	2.5	10	2	<b>41.5</b>
b)Reproduction and reproductive disorders <sup>15</sup>	31	9	5	5	7	13.5	3	<b>73.5</b>
c)Pathology (including pathological anatomy) <sup>16</sup>	66	40	5.5	39	6	33	10.5	<b>200</b>
d)Clinical medicine <sup>17</sup>	60	0	0	27	9	31	4	<b>131</b>
e)Clinical lectures on various domestic animal, poultry and other animal species <sup>18</sup>	60	7	5	26	0	5	7	<b>110</b>
f)Preventive Medicine <sup>19</sup>	15	4	0	4	4	0	2	<b>29</b>
g)Parasitology <sup>20</sup>	75	8	13	39	0	5	11	<b>151</b>
h)Field veterinary medicine (ambulatory clinics) <sup>21</sup>	0	0	0	0	0	50	0	<b>50</b>
i)Propedeutics (including laboratory diagnostic methods)	30	5	3	0	0	20	2	<b>60</b>
j)Diagnostic imaging (including Radiology) <sup>22</sup>	12	0	3	0	0	9	1	<b>25</b>
k)Surgery (including anaesthetics) <sup>23</sup>	57	22	7	0	0	50	4	<b>140</b>
l)Therapeutics <sup>24</sup>	8	0	0	24	0	0	2	<b>34</b>
m)Veterinary state medicine and public health <sup>25</sup>	21	4	0	4	0	0	2	<b>31</b>
n)Veterinary legislation and forensic medicine <sup>26</sup>	10	2	0	7	0	0	7	<b>26</b>
o)Practical work <sup>27</sup>	0	0	4	0	0	236	5	<b>245</b>
<b>3. Total</b>	<b>467</b>	<b>105</b>	<b>46.5</b>	<b>175</b>	<b>28.5</b>	<b>462.5</b>	<b>65.5</b>	<b>1,347</b>



14. Includes hours allotted to the subjects Obstetrics (A= 22, B= 4, C= 1, E= 2.5, F= 10, G= 2, Total= 41.5) as part of the subjects Reproduction and obstetric basis (A= 28, B= 6, D= 5, E= 5.5, F= 13.5, G= 2, Total= 60) and Obstetric and reproduction pathology (A= 25, B= 7, C= 6, E= 4, F= 15 [five of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 3, Total= 60).
15. Includes hours allotted to the subjects Reproduction and reproductive disorders (A= 31, B= 9, C= 5, D= 5, E= 7, F= 13.5, G= 3, Total= 73.5) as part of the subjects Reproduction and obstetric basis (A= 28, B= 6, D= 5, E= 5.5, F= 13.5, G= 2, Total= 60) and Obstetric and reproduction pathology (A= 25, B= 7, C= 6, E= 4, F= 15 [five of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 3, Total= 60).
16. Includes hours allotted to the subjects General pathology (A= 38, D= 23, F= 1, G= 3, Total= 65), General pathological anatomy (A= 28, C= 4, D= 16, E= 6, F= 7, G= 4, Total= 65) and Special pathological anatomy (B= 40, C= 1.5, F= 25, G= 3.5, Total= 70).
17. Includes hours allotted to Clinical medicine (A= 60, D= 27, E= 9, F= 31, G= 4, Total= 131) as part of the subjects Medical pathology I (A= 34, D= 17, F= 22 [four of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 2, Total= 75) and Medical Pathology II (A= 26, D= 10, E= 9, F= 13, G= 2, Total= 60).
18. Includes hours allotted to the Clinical lectures on various domestic animal, poultry and other animal species (A= 60, B= 7, C= 5, D= 26, F= 5, G= 7, Total= 110) as part of the subjects Infectious diseases I (A= 30, B= 6, C= 1, D= 10, F= 10 [five of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 3, Total= 60) and Infectious diseases II (A= 30, B= 1, C= 4, D= 16, F= 5 [allotted to the Subject Field veterinary medicine –ambulatory clinics-], G= 4, Total= 60).
19. Includes hours allotted to Preventive medicine (A= 15, B= 4, D= 4, E= 4, G= 2, Total= 29) as part of the subject Medicine, Health Policy and Zoonoses (A= 36, B= 8, D= 8, E= 4, G= 4, Total= 60).
20. Includes hours allotted to Parasitology (A= 30, C= 8, D= 22, G= 7, Total= 67) and Parasitic diseases (A= 45, B= 8, C= 5, D= 17, F= 11 [six of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 4, Total= 90).
21. Includes hours allotted Field veterinary medicine –ambulatory clinics- (F= 50) under Infectious diseases I (F= 5), Infectious diseases II (F= 5), Parasitic diseases (F= 6), Medical pathology I (F= 4), Obstetric and reproduction pathology (F= 5) and Practicals 2 – clinical- (F= 25).
22. Includes hours allotted to Radiology (A= 12, C= 3, F= 9; G= 1, Total= 25), as part of the subject Radiology, anaesthesiology and surgical pathology (A= 49, C= 4, F= 34, G= 3, Total= 90).
23. Includes hours allotted to the Surgery and anaesthetics (A= 57, B= 22, C= 7, F= 50, G= 4, Total= 140), as part of the subjects Radiology, anaesthesiology and surgical pathology (A= 49, C= 4, F= 34, G= 3, Total= 90) and Surgical Clinic (A= 20, B= 22, C= 6, F= 25, G= 2, Total= 75).
24. Includes hours allotted to the subject Therapeutics (A= 8, D= 24, G= 2, Total= 34) as part of the subject Pharmacy and pharmacotherapy (A= 15, D= 28, G= 2, Total= 45). However, treatment of the various diseases is studied as part of different subjects (Medical and nutritional pathology, Infectious and Parasitic diseases, Obstetrics and reproduction, etc.).
25. Includes hours allotted to Veterinary state medicine and public health (A= 21, B= 4, D= 4, G= 2, Total= 31) as part to the subject Preventive Medicine, Health Policy and Zoonoses (A= 36, B= 8, D= 8, E= 4, G= 4, Total= 60).
26. Includes hours allotted to Veterinary legislation and forensic medicine (A= 10, B= 2, D= 7, G= 7, Total= 26) as part of the subject Toxicology and legal veterinary (A= 50, B= 4, D= 21, G= 15, Total = 90).



27. Includes hours allotted to Practical work as part of the subjects Placements (C= 4, F= 86, Total= 90) and Practicals 2 –clinical- (F=175 [twenty-five of them allotted to the subject Field veterinary medicine –ambulatory clinics-], G= 5, Total= 180).

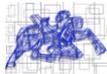


Table 4.4.(cont.)

Subject	Theoretical training			Supervised practical training			Other (G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non Clinical work (E)	Clinical work (F)		
<b>4.ANIMAL PRODUCTION</b>								
a) Agronomy <sup>28</sup>	28	13	0	3	0	0	2	<b>46</b>
b) Rural economics <sup>29</sup>	30	12	3	8	0	0	3	<b>56</b>
c) Animal Nutrition	42	0	0	28	0	0	10	<b>80</b>
d) Animal production and veterinary hygiene	50	16	0	2	0	14	8	<b>90</b>
e) Animal husbandry	38	0	2	22	0	0	8	<b>70</b>
f) Animal ethology and protection <sup>30</sup>	22	14	0	0	0	0	1.5	<b>37.7</b>
g) Practical work <sup>31</sup>	0	0	10	0	40	0	0	<b>50</b>
<b>4. Total</b>	<b>209</b>	<b>34.5</b>	<b>15</b>	<b>96</b>	<b>0</b>	<b>54</b>	<b>32</b>	<b>440.5</b>

28. Includes hours allotted to Agronomy (A= 28, B= 13, D= 3, G= 2, Total= 46) as part of the subject Agronomy (A= 36, B= 13, D= 9, G= 2, Total= 60). The rest of the hours are allotted to Plan Biology (see footnote 4).
29. Includes hours allotted to Rural economics (A= 30, B= 12, C= 3, D= 8, G= 3, Total= 56) as part of the subjects Rural economics and veterinary business management -including marketing- (A= 30, B= 12, C= 3, D= 12, G= 3, Total= 60).
30. Includes hours allotted to Animal ethology and protection (A= 22, B= 14, G= 1.5, Total= 37.5) as part of the subject Ethnology and ethology (A= 44, B= 24, C= 2, E= 2, F= 1, G= 7, Total= 80).
31. Includes hours allotted to Animal production practical work (C= 10, E= 40, Total= 50) as part of the subject Practicals 3 -animal production and health- (C= 10, E= 80 [forty of them allotted to the subject Certification and report writing], Total= 90).

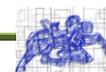


Table 4.4.(cont.)

Subject	Theoretical training			Supervised practical training			Other (G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non Clinical work (E)	Clinical work (F)		
<b>5.FOOD HYGIENE, TECHNOLOGY/ PUBLIC HEALTH</b>								
a)Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit <sup>32</sup>	14	8	0	0	0	0	2	<b>24</b>
b)Food hygiene and technology <sup>33</sup>	70	9	0	0	0	0	8	<b>87</b>
c)Food science including legislation <sup>34</sup>	36	8	0	0	0	0	5	<b>49</b>
d)Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place) <sup>35</sup>	0	0	5	88	73	0	2	<b>168</b>
<b>5. Total</b>	<b>120</b>	<b>25</b>	<b>5</b>	<b>88</b>	<b>73</b>	<b>0</b>	<b>17</b>	<b>328</b>

32. Includes hours allotted to Inspection and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit (A= 14, B= 8, G= 2, Total= 24) as part of the subject Food hygiene, food inspection and food safety (A= 70, B= 15, D= 35, E= 15, G= 5, Total= 140).

33. Includes hours allotted to Food hygiene and technology (A= 70, B= 9, G= 8, Total= 87) as part of the subjects Food hygiene, food inspection and food safety (A= 70, B= 15, D= 35, E= 15, G= 5, Total= 140) and Food technology (A= 50, B= 10, D= 30, G= 10, Total= 100).

34. Includes hours allotted to Food science including legislation (A= 36, B= 8, G= 5, Total= 49) as part of the subjects Food hygiene, food inspection and food safety (A= 70, B= 15, D= 35, E= 15, G= 5, Total= 140) and Food technology (A= 50, B= 10, D= 30, G= 10, Total= 100).

35. Includes hours allotted to Practical work -including practical work in places where slaughtering and processing of foodstuffs takes place- (C= 5, D= 88, E= 73, G= 2, Total= 168) as part of the subjects Food hygiene, food inspection and food safety (A= 70, B= 15, D= 35 [two of them allotted to the subject Professional knowledge, veterinary certification and report Writing], E= 15, G= 5, Total= 140), Food technology (A= 50, B= 10, D= 30, G= 10, Total= 100) and Practicals 4 -food hygiene, and food technology- (C= 5, D= 25, E= 58, G= 2, Total= 90).

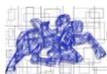


Table 4.4.(cont.)

Subject	Theoretical training			Supervised practical training			Other (G)	Total
	Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non Clinical work (E)	Clinical work (F)		
a)Practice management <sup>36</sup>	0	0	0	0	0	20	15	<b>35</b>
b)Veterinary certification and report writing <sup>37</sup>	0	0	0	2	40	0	0	<b>42</b>
c)Career planning and opportunities <sup>38</sup>	-	-	-	-	-	-	-	-
d)Degree dissertation <sup>39</sup>	0	0	10	109	0	0	1	<b>120</b>
<b>6- Total</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>151</b>	<b>0</b>	<b>20</b>	<b>16</b>	<b>197</b>

36. Includes hours allotted to Practice management as part of the subject Introduction to Veterinary profession (A= 5, B= 4, F= 20, G= 16, Total= 45) except hours allotted to Professional ethics (see footnote 13).

37. Includes hours allotted to Veterinary certification and report writing, (D= 2, E= 40, Total= 42) two hours as part of the subject Food hygiene, food inspection and food safety (A=70, B= 15, D= 35, E= 15, G= 5, Total= 140) and forty hours as part of the subject Practicals 3- Animal production and animal health (C= 10, E= 80, Total= 90).

38. Although this subject is not included in the curriculum, it is developed by means of the PAT (Tutorial Action Plan).

39. Include tasks dedicated to the preparation of a Degree dissertation on any veterinary professional area.



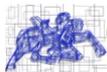
Table 4.5. CURRICULUM hours in EU-listed subjects offered and to be taken as electives

Code	Subject	Theoretical training			Supervised practical training			Others (G)	Total
		Lectures (A)	Seminars (B)	Self directed learning (C)	Laboratory and desk based work (D)	Non Clinical work (E)	Clinical work (F)		
<b>BASIC SUBJECTS</b>									
0106011	Scientific and technical English	12	0	8	11	0	0	2	33
0106020	Anatomy and physiology of wild, exotic and laboratory animals	11	0	6	0	11	0	2	30
0106021	Applied Informatics	1	0	2	23	0	0	2	28
<b>PROFESSIONAL KNOWLEDGE</b>									
0106010	History of Veterinary	20	4	1	0	0	0	20	45

#### 4.3.2. FURTHER INFORMATION ON THE CURRICULUM

Provide the visiting team with highlights and any unusual or innovative aspects of the teaching programme, e.g. tracking and orientation programmes

All Faculty bodies are currently making a major effort to promote new teaching methods, providing greater scope for self-learning or learning based on problem-solving. The University of León is working so hard in the training of the teachers and in the development of the quality of the teaching. With this aim, the University has created the Service of Training and Orientation in Teaching Methods, that every year offers a great program of activities in this field.



The subject matter of each course is decided on by the staff responsible, but both courses content and timetabling are reviewed by the Faculty Board. The Teaching Committee is responsible for supervising all general academic matters, including teaching performance, reports on teaching quality and supervision of teacher quality.

State the parts of the programme that must be attended as obligatory by the students and how the attendance is verified

According to the University regulations, attendance to all academic activities is compulsory. However, attendance at theoretical lectures is not monitored or checked in most subjects. Some teachers voluntarily operate their own systems for checking attendance. Attendance at practical classes, by contrast, is also compulsory for almost all subjects, and is usually checked.



Please provide specific information on practical clinical training. If clinical training is to be provided through obligatory clinical rotations in different areas, please give an outline description of how this is structured, in terms of:

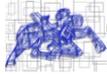
- ➔ Are such rotations a structured part of the training given to all undergraduate students?
- ➔ The total number of days or weeks of such rotations; –The year(s) in which they occur
- ➔ The different areas covered and the time spent in each area
- ➔ Whether attendance is full-time, for part of the day, and/or other (e.g. based on case needs)
- ➔ The activities and case responsibilities that students are expected to undertake
- ➔ The group sizes in the clinical rotations

The type of practical clinical training provided under the heading “Clinical Work”, in which student participation is strictly hands-on, may be classified as follows:

Working with live animals, with healthy animals for clinical purposes, with organs and various types of clinical material, with individual animals and herds/flocks for diagnostic purposes, and with organic systems and cadavers in order to learn methods of examination and surgical techniques (e.g. suturing, handling anesthetic equipment, approaches to surgical techniques and laboratory work).

Includes clinical work with individual patients at the Veterinary Teaching Hospital, where students are involved in real clinical cases.

The clinical training is organised in rotations, being supervised at all times by the teaching staff responsible for the subject concerned, and takes place at the Veterinary Teaching Hospital, at the Faculty



Experimental Farm and on other partner farms, with the help of veterinary residents, student interns or collaborator veterinarians.

At the Veterinary Teaching Hospital, hands-on clinical activity by the students includes dealing with small animals (dogs and cats), large animals (horses) and exotic species. Students are actively involved in the examination, diagnosis and treatment of patients. As part of the subjects Anaesthesiology and Surgical Pathology, students are also involved in assistance clinical practical training at the Veterinary Teaching Hospital.

As part of the subjects Medical Pathology I and II, students take part in Clinical Medicine consultations at the Veterinary Teaching Hospital. The student helps the teacher to record the patient history and carry out all the procedures involved in basic physical examination and laboratory testing (e.g. diagnostic imaging, electrodiagnosis, laboratory diagnosis) of the animal in question. Once in possession of all the information on the patient, the student and the teacher discuss the case in order to arrive at a diagnosis, develop a prognosis and decide on the most suitable treatment. Similarly, in those clinical cases where hospitalisation is recommended, the student is involved in the daily monitoring of vital signs, additional in-patient diagnostic procedures, and the administration of hygiene/diet based treatment as well as any medical treatment.

In Obstetrics and Reproduction, students complete their training in reproduction with clinical care including clinical assistance at the Veterinary Teaching Hospital

In summary, students take 115 hours of attendance at clinics activities.



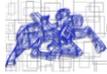
Describe clinical exercises in which students are involved prior to the commencement of clinical rotations

Prior to the commencement of clinical practices at the Veterinary Teaching Hospital and at consultations, where they are involved in hands-on clinical activity, the students have taken part in practical sessions as part of the following subjects: Animal Physiology, Anatomy, General Pathological Anatomy, Radiology, Veterinary Pharmacology, General Pathology and Propaedeutics. In these subjects, students learn how to handle animals, how to perform a clinical examination, how to administer medication, to be able to fulfill veterinary prescriptions, how to identify and describe tissues and lesions associated with various diseases. Also, they acquire familiarity with radiographic techniques, and learn how to perform and interpret laboratory tests results and the results of other diagnostic techniques (electrocardiography, ultrasonography, etc.).

Outline student involvement in the emergency and hospitalization activities of the clinics

Usually, the students enrolled in core subjects are not involved in any specific emergency and hospitalization activities, although they take part in emergency care of hospitalized patients. Emergency and hospitalization activities at the Veterinary Teaching Hospital are carried out by Veterinary Residents.

Student interns of the subjects that have clinical activity work at the Veterinary Teaching Hospital on a voluntary basis, even at weekends and during vacations; their work is coordinated by the hospital itself. Student interns (3th, 4th and 5th year students) undertake emergency and hospitalisation activities, under the supervision of



the veterinary residents and teaching staff. Since interns are chosen every year, almost all students wishing to receive practical clinical training at the Veterinary Teaching Hospital can participate in this activity.

Specify student participation in the activities of the mobile clinic and indicate whether or not the hours spent in the mobile (ambulatory) clinic are included in those in Table 4.2

These activities place on livestock farms of sheep, pigs, cows and horses, and are aimed at giving the student first-hand experience of the daily working life of a veterinarian, and a clear idea of the practical implications of diagnosing and controlling diseases. A student accompanies a clinical practitioner veterinarian that work in those farms. Student activities on farms include assessment of farm sanitary status, description of the main infectious and parasitic diseases, the study of actual outbreaks, the treatment applied for each disease, control measures and sample collection. Students also, learn about the main aspects of biosafety protocols, vaccination and deparasitation programmes, and good hygienic practice. Students also play an active part in the clinical activities: anaesthetic protocols, surgery, medicine, etc.



#### 4.4. OBLIGATORY EXTRAMURAL FIELDWORK

These are training periods that are an integral part of the curriculum, but which are taken outside the Faculty, for instance with practitioners, on farms, or in Food Hygiene/Public Health with commercial or government organizations

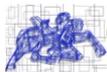
Please indicate the guidelines pertaining to this activity, and the manner by which it is assessed

As indicated earlier, students are required to take training periods outside the Faculty; these are included as a core subject of 86 hours in the curriculum, under the generic title “External Pre-Professional Internships” or “Placements” (Estancias), and include all the areas of knowledge covered by the syllabus. Apart from that there are 80 hours in the curriculum, under the generic title “Practicals 3 –Animal production and health- and 40 hours in the curriculum, under the generic title “Practicals 4 –Food hygiene, and food technology.

The aim of these training periods is to enable the student to gain first-hand knowledge of veterinary working practice, thus completing the basic theoretical tuition and practical training received at the Faculty.

The development of this practical activity is covered by the terms established in the respective coordination agreements between the University of León and the Institutions. Additionally, the Faculty of Veterinary has its own internal regulations for these practical activities, in which all details of the practices are analysed. The student is also provided with guidelines regarding the drafting and the format of the final report.

Each student is assigned an Academic Tutor -one of the Faculty lecturers- whose job is to supervise and evaluate student internship reports and to assess the experience acquired. The student is also assigned a Workplace Tutor, who acts as an honorary assistant to the



Faculty; this tutor is a professional, employed by the company or organisation at which the internship takes place. The External Practices Committee and the Internship Coordinator are also responsible for academic aspects of the internship.

Available internship venues include public and private centres all over in Spain. They can be Hospitals and clinics of Small or Large Animals, Practitioner Veterinarians, Zoological and Wild Fauna Parks, Zoological Centres, Food and Food Safety Companies, Animal Production, Official Institutions, etc.

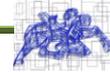
Evaluation of the Internship subject is based on the following criteria: The student is evaluated by the Workplace Tutor during the Internship. The student hands in a report on the internship to the Academic Tutor, and the Academic Tutor proposes an overall mark for the internship.

#### **4.5. SPECIFIC INFORMATION ON PRACTICAL TRAINING IN FOOD HYGIENE/PUBLIC HEALTH**

Describe arrangements for teaching in a slaughterhouse and/or in premises for the production, processing, distribution/sale or consumption of food of animal origin

Indicate the distance to slaughterhouses where students undergo training, and the species covered. Outline the structure and the frequency of these visits (group size, number of trainers, duration, etc.)

As a part of the compulsory training programme in Food Hygiene, Inspection and Safety, every student takes part in a series of supervised practical activities on both slaughterhouse and food processing premises. Moreover, for a period of 28 hours, the students, individually, accompany a Veterinarian of the Official Services of Public Health in order to know the labour of inspection of alimentary establishments.

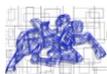


### **Slaughterhouse training**

Students receive 27 hours' training on veterinary inspections at the slaughterhouse Carracedo-Llamas in León (5 km. from Faculty). Groups from 5-10 students are guided by a teacher of the Faculty, and instructed by the Official Veterinarian employed by the regional government.

Practical training at the slaughterhouse includes the following activities related to obtaining fresh meat, mainly from cattle and horse:

- ▶ Checking food chain information, animal identification, and official paperwork.
- ▶ Ante-mortem inspection.
- ▶ Supervision of animal welfare from reception to stunning.
- ▶ Inspection of slaughterhouse hygiene; inspection of animal health status, monitoring of animals during slaughter.
- ▶ HACCP monitoring and verification for slaughtering.
- ▶ Post-mortem inspection of carcasses and offal.
- ▶ Handling of specified hazardous material and other animal by-products.
- ▶ Monitoring cold chain for fresh meats.
- ▶ Recording activities in slaughterhouse logbook.
- ▶ Issuing reports, control sheets, and veterinary certificates.



### **Training in official control of food establishments.**

Students receive 28 hours' training on inspection, monitoring, surveillance and verification of food establishments. Groups of 1-2 students are guided by an Official Veterinarian while he is performing official control activities on establishments where foodstuffs are produced, processed or distributed.

## **4.6. RATIOS**

These must be delineated from Table 4.1, 4.2 and 4.3

For explanations about ratios, see the section 'Main Indicators' of Annex I.

### **4.6.1. GENERAL INDICATORS FOR TYPES OF TRAINING**

As indicated in tables 4.1, 4.2 and 4.3, the figures for the numerators and denominators are defined as follows:

<b>Figure</b>	<b>Total no teaching hours</b>
A	◆ Lectures
B	◆ Seminars
C	◆ Self directed learning
D	◆ Laboratory and desk based work
E	◆ Non-clinical animal work
F	◆ Clinical work
G	◆ Other



Please give the following values

$$\mathbf{R6:} \frac{\text{Supervised practical training}}{\text{Theoretical training}} = \frac{1422}{1612.5} = \mathbf{0.881}$$

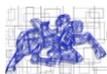
$$\mathbf{R7:} \frac{\text{Laboratory and dbw + non clin. animal work}}{\text{Clinical work}} = \frac{924.5}{497.5} = \mathbf{1.858}$$

$$\mathbf{R8:} \frac{\text{Teaching load}}{\text{Self directed learning}} = \frac{3227}{121} = \mathbf{26.67}$$

#### 4.6.2. SPECIAL INDICATORS OF TRAINING IN FOOD HYGIENE/ PUBLIC HEALTH

$$\mathbf{R9:} \frac{\text{Total no. hours vet. curriculum}}{\text{Total no. curr. hours Food Hyg./Public Health}} = \frac{3227}{328} = \mathbf{9.838}$$

$$\mathbf{R10:} \frac{\text{Hours obligat. Extram. Work veter. Inspect.}}{\text{Total no. curr. hours Food Hyg./Public Health}} = \frac{55}{328} = \mathbf{0.167}$$



## 4.7. COMMENTS

Please comment on:

- ➔ The way in which the veterinary curriculum prepares the graduate for the various parts of the veterinary profession, especially under the specific conditions prevailing in your country/region
- ➔ The way the curriculum is structured and reviewed
- ➔ The major developments in the curriculum, now and in the near future
- ➔ The local conditions or circumstances that might influence the ratios in 4.1.5

As shown in the data provided, this syllabus provides the students with a basic general training which is both flexible and balanced, and produces graduates who are skilled in many areas. This versatility means that they can rapidly enter the labour market, since they are able to adapt to the various professional profiles which society currently demands (Veterinary Medicine, Animal Production and Animal Health, and Food Science and Technology). Nonetheless, the wide scope of the veterinary profession and the fact that, by law, the veterinary curriculum in Spain is a five-year Degree programme, gives rise to an undesirable restriction on curriculum development. Moreover, the rate at which knowledge is advancing in all these areas, and the growing need for specialisation, make continuing lifelong education essential for all students, even those holding Postgraduate Degrees.

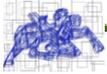
Aside from traditional and emerging areas of responsibility, the Veterinary Profession must diversify into new fields such as the Handling and Management of Zoological centres, Wild and Hunting Fauna, Natural Reserves and Animal Parks, Business Management, Research, Diagnostic Laboratories, and others. These fields have not always been clearly included in the profile of the Veterinarian and will have to be reflected in the curriculum.



In this context, it is difficult to choose a satisfactory model which allows for the acquisition of both basic and specific professional knowledge that is structured and orientated towards facilitating the student's integration into the labour market. The Spanish Agency for Quality Assurance and Accreditation (ANECA) published the so-called White Paper for the Veterinary Profession with the aim of providing studies and potential practical models for the future design of a degree adapted to the European Space for Higher Education. Eleven Spanish Universities have taken part in the drafting of this report, which takes into account the opinions of the Conference of Deans of the Veterinary Faculties in Spain and the General Council of Spanish Veterinary Colleges. This project brings together many key aspects regarding the design of an undergraduate course model: analyses of corresponding or related studies, studies of employment opportunities, professional profiles and competences, etc.

The essential recommendation of the project is to establish a five and-a-half-year University degree comprising 300 ECTS credits + 30 additional ECTS credits for practical fieldwork.

All these changes imply an adjustment in teaching methods, which should become learning-based rather than content-based and should establish objectives in accordance with professional competences. The teaching staff has adapted to the new updated standards which place greater stress on student workload; the aim is to enable students to acquire greater knowledge and at the same time ensure that they are better prepared for the professional market.



## 4.8. SUGGESTIONS

If the denominators in 4.1.5 for your Faculty are not meeting the range as indicated in Annex I, Supplement A, what can be done to improve the ratios?

The reduction of theoretical hours on the curriculum is one of the consequences of adaptation to the European Space for Higher Education. It would be wise to reduce theoretical tuition, using traditional methods only when learning objectives are best achieved by those methods.



## CHAPTER 05

# TEACHING AND LEARNING: QUALITY AND EVALUATION

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## CHAPTER 05. TEACHING AND LEARNING: QUALITY AND EVALUATION

### 5.1. FACTUAL INFORMATION

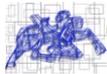
#### 5.1.1. THE TEACHING PROGRAMME

Describe the measures taken to ensure co-ordination of teaching between different departments, sections, institutes and services

Teaching co-ordination is a responsibility of the Degree Coordinator, the Teaching Committee and the Degree Coordination Committee. Every year the Faculty must approve the Teaching Organization Plan which includes, for every subject, the “Course Guide” with the following information:

- ▶ Objectives of teaching
- ▶ Competences to be reached
- ▶ Learning results
- ▶ Contents
- ▶ Planification
- ▶ Methods of teaching
- ▶ Tutorial timetables
- ▶ Assessment of learning
- ▶ References

Within each Department of the Veterinary Faculty, teaching is organized by means of Departmental Teaching Plans which meet the criteria set down in the Faculty’s overall Teaching Organization Plan. The implementation of the teaching plan is monitored by the Department Board under the supervision of the Faculty Teaching Committee. The Department is also responsible for the following:



coordinating proposals for new syllabuses; coordinating teaching activities for the subjects taught by the Department; making proposals to the Department Board regarding the assignment of teaching duties and ensuring that all areas receive equitable treatment.

This information is provided every year by the different Departments and approved by the Teaching Committee and the Degree Coordination Committee, and the Faculty Board during the year before.

### **Teaching Committee**

The Teaching Committee is composed by faculty coordinators of the various courses, delegate or sub-delegate students of each course, the Secretary of the Faculty and the Dean. The Teaching Committee shall be responsible for organizing and coordinating the teaching of the Faculty. This will:

- ▶ Establish and propose to the Faculty Council the theoretical and practical lessons timetable, and coordinate both; the composition and coordination of theoretical and practical groups and of any other teaching modality; the schedule, timetable and academic facilities for partial and final exams, and any other kind of learning assessment.
- ▶ Establish and make public before the beginning of the academic year the teaching plan with indication, for each subject, of its academic activities, of the groups for theoretical and practical teaching and for other teaching modalities, of the teachers involved, as well as the exam schedule, and the composition of the exam revision jury.
- ▶ Verify the fulfillment of the Teaching Plan approved by the Faculty Board for each academic year, and watch over the correct application of the Curriculum.
- ▶ Attend and decide in the first instance on those incidences related to teaching arisen in the Center



during the development of the teaching plan of each degree.

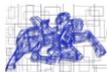
- ▶ Address the claims, suggestions and opinions that, both teachers and students, make concerning the teaching activity, proposing appropriate actions and transferring them to higher authorities.
- ▶ Revise the objectives of teaching quality of the Center.
- ▶ Develop all those activities that deem opportune aiming the improvement of the teaching quality in the Center.

The new EHEA (European Higher Education Area) degree involves the coordination of teaching by means of a “Degree Monitoring Committee” and a “Degree coordinator”.

### **Degree Coordinating Committee**

It is composed of the Degree Coordinator, the Course Coordinators, a student's degree and a representative of PAS. The functions of the Committee on Coordination Degree are

- ▶ Introduce and maintain the Quality Assurance System of the Degree, in a coordinated manner with the Quality Commission of the Centre, when appropriate, and with the advice of the Evaluation and Quality Office.
- ▶ Report on the development of the Quality Assurance System and on the needs for improvement arising from the Faculty Board and the Quality Commission.
- ▶ Control the establishment and the follow up of the Degree.
- ▶ Produce, if needed, the modifications, the amendments of the Degree Verification Report.



## Degree Coordinator

The functions of Degree Coordinator are:

- ▶ Inform to the Quality Commission of the Center about all the questions to be assessed and that affect the follow up of degree studies.
- ▶ Propose to the Quality Commission of the Center improvement plans for the degree.
- ▶ Schedule and maintain all necessary coordination meetings with the teaching staff and with the course coordinators.
- ▶ Report to the Quality Commission on the achievement of competences acquired in the Degree and propose improvement actions for their achievement.
- ▶ Propose to the Degree Coordination Commission the necessary actions to overcome the overlapping of contents noticed in the teaching guides.
- ▶ Take responsibility of the writing of the annual self-assessment report for the Degree. Submit and report yearly to the Quality Commission of the Center the self-assessment reports for the follow up and the future Accreditation.

During spring term, the coordinators of the different years draw up a draft with the complete teaching programme and proceed to hold meetings with all the teachers and students in order to discuss and approve the entire teaching plan for the next academic year (teaching calendar, timetable of theoretical and practical classes, exam schedule etc.).



Describe the pedagogical approach of the institution. In particular, describe the use of newer approaches, such as problem-based learning, interactive computer-assisted learning, etc

The pedagogic policy of the Faculty of Veterinary and the University of León is to implement and impulse learning-oriented student-centered approaches, as well as to apply and develop the content of the European Higher Education Area (stimulating self learning, problem solving, team working etc.). To achieve this, the types of academic activities are:

#### **Theoretical Classes:**

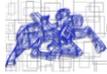
**LECTURES:** So called because the teacher addresses the students directly. These classes may take the form of lectures or explanations and/or be demonstrative in content. Two groups sized 60-80 students are established.

**SEMINARS:** In these activities, knowledge is attained through interaction and group work. These are supervised monographic sessions with shared input (from students, teachers, experts, etc.). They may involve large or small groups: group size for seminars varies from a theoretical maximum of 60 students down to a minimum of 20 students.

#### **Self-directed learning non face to face activities:**

**1. TUTORED WORK.** Also termed “group study and group work”, in which students work together to prepare seminars, lectures, research projects and papers, to keep records, and to collect and analyze data for classroom presentation or for handing in.

**2. INDEPENDENT ACTIVITY.** This may be defined as self study, and is intended to develop the student’s ability to study alone, using the same methods as for tutored work; it includes personal study(preparing for examinations, library studies, additional reading,



problem-solving and exercises, etc.) which are essential for independent learning. It also includes work in the Virtual Classroom.

### **Practical training**

Practical classes are intended to show students how to act, and can be classified as follows:

#### **LABORATORY AND DESK-BASED WORK**

**CLASSROOM PRACTICALS:** These practical classes take the form of group work in the classroom, and involves working with documents and with the formulation of ideas without handling animals, organs, products or other objects; areas covered include problems, clinical case studies, and diagnostic analyses. Group size varies between 24 and 60 students.

**LABORATORY PRACTICALS:** These take the form of group work in the laboratory and include microscope practice (where students use microscopes to study histological, histopathological, microbiological and parasitological samples) and the carrying out of laboratory experiments by the students themselves (physiology, biochemistry, pharmacology, pharmacy, therapeutics, etc.). The size of the group is defined by the capacity of the room, usually 15 to 20 students per group.

**COMPUTER WORK:** These involve practical group work in the computer room. Group size depends on the number of computers available, and ranges from 15 to 20 students per group.

**NON-CLINICAL ANIMAL WORK:** These practical classes with healthy animals cover subjects such as breeding and animal husbandry, ante mortem and postmortem inspection, dissection and necropsy. Visits to livestock farms and food/feed-processing industries also fall within this category. The size of the group is a maximum of 20 students per group.

**CLINICAL WORK:** These practical classes provide the student with hands-on experience using live animals. They include not only clinical practice classes held at the Veterinary Teaching Hospital, but also any procedure involving working with live animals for clinical purposes,



with organs and clinical material –from single animals or groups of animals– for diagnostic purposes, and with organic systems and corpses for the purpose of learning examination methods and surgical techniques. Group sizes range from 10 students in clinical practice classes held at the Veterinary Teaching Hospital, to 15 students for practical classes addressing diagnostic methods (e.g. for the study of infectious diseases).

**EXTERNAL PRACTICES** (extramural fieldwork): These practices are carried-out in companies and entities outside the University. It includes extramural practices or visits to-companies, entities or organisms (e.g. slaughterhouses, food factories, farms-non-clinical practices- and expositions of livestock and food industries). The size of the group is variable, from individual in the case of company practices (i.e. obligatory/voluntary extramural fieldwork) up to large groups, according to the nature of the activity.

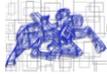
#### **Other teacher-student activities**

**a) EVALUATION**, which encompasses not only ordinary, extraordinary and special official examinations, but also any activity intended to evaluate the knowledge acquired by the students, and

**b) TUTORIALS**, involving personalized attention to students. These are help sessions in which the tutor provides help, guidance and support to one or more students with regard to the teaching-learning process. Although most sessions are individual, group sessions may also be held.

#### **E-Learning**

E-learning is a valuable adjunct in the process of convergence towards the new EHEA, a process requiring new teaching models and new channels for communication between teachers and students, for which information and communication technologies (ICTs) can provide a powerful tool. In the University of León, important pedagogical advances have been made with the implementation of new technologies applied to teaching, mainly with the use of Virtual Campus, based on Moodle platform. Moodle is designed to help educators create online courses with opportunities for interaction.



This platform has been adapted and included in the University of León website (<http://agora.unileon.es>), and almost all subjects use the Virtual Campus as a work tool to help students with documents for study, and many use it to interact with the students through constructing activities, which allow them to build up knowledge.

Both in the theoretical classes and in the practices, Power-Point presentations and other materials in electronic format are used, and they are made available to the students in the Virtual Campus as a way to facilitate them to follow the course as well as their own self-learning.

In order to provide the students for full access to computer resources and Internet, the Faculty has one computer room (25 computers). All the rooms and spaces in the Faculty are equipped with wireless connections to Internet and the Virtual Campus. The library of the Faculty has a lending service of laptops to students also.

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Indicate the extent to which course notes are used to supplement or substitute for the use of standard veterinary textbooks

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In addition to the textbooks available in the library for many subjects, the students need a varied range of teaching material. This material varies depending on the subject, and can include summaries of theoretical program content, practical manuals, problems, website links, etc. Student can access this material either in the form of original texts deposited at Photocopying Service or via the Virtual Classroom.

As stated before, there is a Virtual Campus that serves as an intranet, where the teachers place notes and other resources for the students. In addition, some subjects have their own web sites. In the teaching plans of the subjects there is a basic bibliography (the books that the teachers consider fundamental to the course study) as well as a



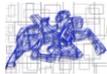
recommendation of books, which at times due to its excessive length is not consulted by students, which makes it necessary at times to compile the information in easy to read documents prepared for students to study.

Describe (if applicable) any established or contractual arrangements that support undergraduate teaching between the Faculty and outside bodies, e.g. farms, breeding centers, practitioners, state veterinary services, factories/processing plants, outside laboratories, etc. Briefly describe how these arrangements work out in practice in terms of the contact this provides for all students or for selected students

At present, the Faculty of Veterinary of León has signed Collaboration Agreements with outside bodies to specifically develop practices with undergraduate Veterinary students, in order to complete their extramural fieldwork. These agreements allow practical activities to be carried out in various professional sectors within the veterinary world, such as small animal veterinary clinics, professionals from the large animal clinic, research centers and food control, among others. No economic compensation is required for these agreements. It is important to mention that all our students are covered by the University insurance plan during their extramural fieldwork activities.

These agreements allow, in one way, that all students carry out the practical activities corresponding to the core subject Obligatory extramural fieldwork ("Estancias"); and, on the other side, that the students carry out practical hours in external Centers as a voluntary activity taking place during the students' holidays, which can be recognized as free chosen credits. Student work at these sites is supervised by a work-practice tutor and by an academic tutor (from the Faculty), and is assessed by means of an internship report presented by the student.

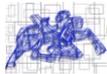
The establishments where students can take their extramural fieldwork activities are listed in the following tables.



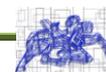
Angulema Centro Clínico Veterinario	Alava
Clínica Veterinaria Pets	Alava
Clínica Veterinaria Aiara	Álava
Centro Policlínico Veterinario Raspeig S.L.	Alicante
Centro Veterinario J.G. S.L.	Alicante
Clínica Veterinaria Cynos C.B.	Alicante
Clínica Veterinaria Mira	Alicante
Clínica Veterinaria La Granja	Asturias
Centro Clínico Veterinaria Ribadesella	Asturias
Centro Clínico Veterinario A. Solís	Asturias
Centro Clínico Veterinario La Calzada	Asturias
Centro Veterinario Alto Navia	Asturias
Centro Veterinario Capua	Asturias
Centro Veterinario La Villa	Asturias
Centro Veterinario Latores	Asturias
Centro Veterinario Laviana	Asturias
Centro Veterinario Oviedo	Asturias
Centro Veterinario Siero	Asturias
Centro Veterinario Vallodin	Asturias
Centro Veterinario Viesques	Asturias
Centro Veterinario y Dermatológico	Asturias
Cenvet S.A.	Asturias
Clínica "El granero"	Asturias
Clínica Caudal	Asturias
Clínica Rural Ambulante Parres	Asturias
Clínica Veterinaria Armando Solís	Asturias
Clínica Veterinaria Buenavista	Asturias
Clínica Veterinaria Covadonga	Asturias
Clínica Veterinaria El Carmen	Asturias
Clínica Veterinaria Fauna	Asturias
Clínica Veterinaria La Playa	Asturias
Clínica Veterinaria Llanera	Asturias
Clínica Veterinaria Mamen González Llerandi	Asturias
Clínica Veterinaria Martínez	Asturias
Clínica Veterinaria San Francisco S.L.	Asturias
Clínica Veterinaria Vetercan	Asturias
Clínico Veterinario Ángel García Oliveira	Asturias



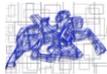
Consultorio Yedra Veterinaria	Asturias
Control y Calidad Alimentaria S.L. (Conical)	Asturias
Corporación Alimentaria Peñasanta	Asturias
Hospital Veterinario Asturias S.L.	Asturias
Laboratorio Interprofesional Lechero y Agroalimentario de Asturias (LILA)	Asturias
Lindo Pulgoso	Asturias
Royva Veterinarios S.L.	Asturias
S.A.T. Lluisa, Gozón	Asturias
Servicios Veterinarios María Llana	Asturias
Tapia Servicios Veterinarios S.L.	Asturias
Veterinaria Contrueces	Asturias
Clinica Veterinaria San Antonio	Avila
El Barco Consultorio Veterinario	Avila
Servinet Veterinarios C.B.	Avila
Centro Veterinario Arenas	Ávila
Clínica Gredos, El Barraco	Ávila
Cínica Veterinaria Inmaculada Acevedo	Badajoz
Arago Clínica Veterinaria	Baleares
Clínica Veterinaria Canis	Baleares
Espai Veterinari	Baleares
Centre Veterinari L'Ametlla	Barcelona
Hospital Veterinari de Sabadell	Barcelona
Clínica Veterinaria Mascosan	Bizkaia
Clínica Veterinaria Plentzia	Bizkaia
Hospital Veterinario Tatanga	Bizkaia
Amada Valderrama Alcalde	Burgos
Clínica Veterinaria Aguilar	Burgos
Clínica Veterinaria Anubis	Burgos
Clínica Veterinaria El Albeitar	Burgos
Clínica Veterinaria Fisac Ferrández	Burgos
Clinica Veterinaria Gamonal	Burgos
Clínica Veterinaria Medina	Burgos
Clínica Veterinaria Prada	Burgos
Clínica Veterinaria Vistalegre	Burgos
Hospital Veterinario Valderrama	Burgos
Laboratorio de Sanidad Animal de Burgos	Burgos
Clínica Veterinaria Ana	Cáceres
Zoosanitarios Los Monteros	Cáceres
Canvet	Cantabria
Centro Veterinario Buelna	Cantabria



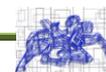
Clínica Veterinaria Castro	Cantabria
Clínica Veterinaria Noja	Cantabria
Clínica Veterinaria Tomas y Manuel Elvira	Cantabria
Fundación Zoo de Santillana	Cantabria
Hospital de Caballos de Cantabria	Cantabria
Hospital Veterinario Tomás Bustamante	Cantabria
Juan Antonio Portilla Diez	Cantabria
Matadero del Ayuntamiento de Reinosa	Cantabria
Prados y Pidal Veterinarios S.L.	Cantabria
Clínica Veterinaria Animalia	Ciudad Real
Clínica Veterinaria Perros y Gatos	Ciudad Real
Clínica Veterinaria Can S.L.	Cordoba
Clínico, Mota del Cuervo	Cuenca
Clinique Veterinaire Catalane	Francia
Clínica Veterinaria Mendieta	Girona
Clínica Veterinaria Gurón Norte	Granada
Clínica Veterinaria Unai San Vicente	Guipúzcoa
Consulta Veterinaria ELU	Guipúzcoa
Hipódromo de San Sebastián	Guipuzkoa
Ángel Rollero Vázquez	Huelva
Centro Veterinario Iregua	La Rioja
Centro Veterinario Malpica	La Rioja
Clínica Veterinaria Gran Vía	La Rioja
Clínica Veterinaria Valls	La Rioja
Hospital Albéitar	La Rioja
Ahumados La Balinesa S.L.	León
Campa Blas S.L.	León
Carlos Alonso de la Hoz	León
Centro Veterinario Leónés S.L.	León
Centro Veterinario Sandoval	León
Centrotec	León
Clínica de Grandes Animales Pío Méndez Pozuelo	León
Clínica Veterinaria Barroso	León
Clínica Veterinaria Cachón	León
Clínica Veterinaria Camino González de Julián	León
Clínica Veterinaria de Bembibre	León
Clínica Veterinaria Dr. Pilar Alonso	León
Clínica Veterinaria Eras	León
Clínica Veterinaria Jaime López	León
Clínica Veterinaria La Legua	León



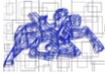
Clínica Veterinaria La Palomera	León
Clínica Veterinaria La Robla	León
Clínica Veterinaria Norberto	León
Clínica Veterinaria Salgado-Centeno	León
Clínica Veterinaria San Miguel	León
Clínica Veterinaria San Pedro	León
Clínica Veterinaria Santo Domingo	León
Congelados El Mar	León
Cooperativa AFRIVEPA	León
Cooperativa Cuatro Valles	León
Cooperativa Ganadera Láctea Río Luna	León
Cooperativa Ganadera Omaña-Alta	León
Cooperativa Lechera Lar	León
Covisurle	León
El Adil Redondo	León
Embutidos Rodríguez	León
Falcon Center Iberica	León
Fortes Veterinarios S.L.L.	León
Hospital Veterinario Ferral	León
Huevos León	León
Industrias Cárnicas Tabuyo S.L.	León
Industrias Lácteas Manzano (Manzer)	León
Instituto de Ciencia y Tecnología de los Alimentos (ICTAL)	León
KraftFoods España, S.A.	León
Laboratorio Municipal de León	León
Laboratorio Pecuario de León	León
Matadero Municipal de León	León
Nanta S.A.	León
Ovinnova S.L.	León
Ovis Producción y Sanidad S.L.	León
Puleva Food S.L.	León
Servicio Clínico de Campo (Servivet)	León
SYVA	León
Yeguada Conde Gayoso	Lugo
Centro Clínico Veterinario Ciudad Ángeles	Madrid
Centro Médico Veterinario Delicias	Madrid
Centro Veterinario Ciempozulos	Madrid
Centro Veterinario Grandes Valles	Madrid
Centro Veterinario Kennel	Madrid
Clínica San Bernardo	Madrid



Clínica Veterinaria Coslada	Madrid
Clínica Veterinaria Fresnedillas	Madrid
Clínica Veterinaria Paseo de la Estación	Madrid
Clínica Veterinaria Pozuelo de Alarcón	Madrid
Clínica Veterinaria Valdelasfuentes	Madrid
Clínica Veterinaria La Encinilla	Madrid
ETECA Servicios Veterinarios	Madrid
Finca Priégola	Madrid
Hospital Clínico Veterinario "Veterinaria"	Madrid
Hospital Veterinario del Retiro	Madrid
Instituto Superior del Caballo, SL. "INSUCA VET"	Madrid
Nova Clínica Veterinaria	Madrid
Clínica Veterinaria Palma de Mallorca	Mallorca
Clínica Veterinaria Galileo	Murcia
Centro Nacional de Tecnología y Seguridad Alimentaría	Navarra
Clínica Veterinaria Barciñain	Navarra
Clínica Veterinaria Belén Carasa	Navarra
Clínica Veterinaria Labreit	Navarra
Galletas United Biscuits	Navarra
Centro Veterinario Veta S.C.	Orense
A Estación Centro Veterinario	Ourense
ANCHE	Palencia
CastiLeón 2000 S.A.	Palencia
Centro Veterinario	Palencia
Centro Veterinario El Sotillo	Palencia
Clínica Don Can	Palencia
Clínica Quirón	Palencia
Consultorio Veterinario Aguilar	Palencia
Centro Veterinario San Roque	Pontevedra
NUDESA	Pontevedra
ALIVET S.L.	Salamanca
Centro Atención Libre Veterinaria	Salamanca
Clínica Veterinaria Peludos	Salamanca
NUTERSA (Asesoramiento Veterinario Mirobrigense)	Salamanca
SERSA Veterinarios	Salamanca
Veterinarios Huebra S.L.	Salamanca
Centro Veterinario a cuatro patas	Segovia
Centro Veterinario Segovia S.L.	Segovia
Centro Veterinario uno+de la familia	Segovia
Hospital Equino Aznalcollar	Sevilla



Centro Veterinario Serrano S.L.	Soria
Clínica Veterinaria Sur	Tenerife
C.V.F. Veterinarios S.L.	Toledo
Centro Veterinario Covetcor	Toledo
Centro Veterinario Tucán	Toledo
Agropecuaria del Centro Agrocesa S.A.U.	Valladolid
Agropecuaria Sivio	Valladolid
Cabalia	Valladolid
Central Lechera Vallisoletana (LAUKI)	Valladolid
Centro Clinico Veterinario Dr. Hermilio Garcia Lozano	Valladolid
Centro Veterinario Boecillo	Valladolid
Centro Veterinario Boston	Valladolid
Centro Veterinario Cavaresa	Valladolid
Centro Veterinario Zorrilla	Valladolid
Clínica Equina San Francisco de Asís	Valladolid
Clínica Veterinaria Camino Viejo de Simancas	Valladolid
Clínica Veterinaria Huerta del Rey	Valladolid
Clínica Veterinaria J.J. Rivas Moreno	Valladolid
Clínica Veterinaria San Vicente	Valladolid
Clínica Veterinaria Yaiza	Valladolid
ENPAC	Valladolid
Equipo Veterinario Valpinar	Valladolid
Gestión Sanitaria Veterinaria	Valladolid
Matadero General Frigorífico	Valladolid
Terneros 2000 S.L.	Valladolid
Centro Veterinario Pintor Colmeiro	Vigo
Centro Veterinario Durango	Vizcaya
Clínica Veterinaria Ensanche S.L.	Vizcaya
Clínica Veterinaria Animales de Compañía	Zamora
Clínica Veterinaria Las Mascotas de Coral	Zamora
Clínica Veterinaria Manuel M <sup>a</sup> Hernández	Zamora
Clínica Veterinaria San Agustín	Zamora
Clínico Alberto Mejía Fortes	Zamora
COBADÚ	Zamora
Sanavet SC	Zamora
SERCLIVET	Zamora
Sociedad Cooperativa Comarcal de Toro Cogola	Zamora



Describe the general learning objectives underlying the veterinary curriculum and how this is ensured

The Veterinary Faculty of the University of León, together with all the Veterinary Faculties in Spain participated in the so-called White Paper on the Veterinary Degree. In this document the learning objectives of the curriculum were listed with the marks graded to competences. The degree of Veterinary studies has its own EU directive which shows the recognition of the degree and qualifications of Veterinary graduates which outline that during the total period of their training a vet must have acquired.

- a) sufficient knowledge of the sciences upon which veterinary activities are based
- b) sufficient knowledge of the structure and functions of healthy animals, their rearing, reproduction, general hygiene, as well as feeding, including technology applied in the production and conservation of the food they need
- c) sufficient knowledge of the behavior and protection of animals
- d) sufficient knowledge of the causes, the nature, the development, the effects, the diagnosis and the treatment of animal diseases, both individually and as a group; and especially diseases transferable to humans
- e) sufficient knowledge of preventive medicine
- f) sufficient knowledge of hygiene and technology in obtaining, processing and putting into circulation animal food, or food derived from animals destined for human consumption
- g) sufficient knowledge of legal and administrative conditions, rules and regulations, relative to the previously cited areas
- h) sufficient clinical and practical experience carried out under adequate supervision

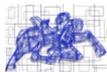


### **Specific Competences of disciplinary and professional training**

For the general characteristics that a graduate in veterinary studies in Spain legally possesses, the majority of competences are those in common with all professional graduates, although, in some cases, there should be a greater depth for some of them. As stated in a previous chapter, this could be carried out in the non-core part of the structure of the course. In practical effect, we have divided the competences into those which refer mainly to the acquisition of knowledge, and those which require the development of handling ability and those which require the development of attitudes which in general can be defined as:

- ▶ **Disciplinary Competences** (to know): are those which make up the knowledge and comprehension of the theoretical knowledge which sustain the various disciplines involved in the training of a veterinary.
- ▶ **Professional Competences** (to know how to do): a collection of intellectual abilities and manual dexterity which a vet must possess, and must acquire during their training for them to be considered to be able to join the profession.
- ▶ **Academic Competences** (to know how to be): are those which make up the collection of attitudes and values which a veterinary should have, and the student should incorporate into their daily life as a part of the professional group they are going to join.

We understand that with this classification we can answer the need for a more integrated training, particularly in the definition of those aspects relative to 'to know how to', which would include for example, the issues relative to the practical application of knowledge and the resolution of problems, points in which a clear deficit exist according to employers. In other areas, within academic competences (of attitude) other issues are reflected that, at first glance, appear to be under-developed at university, for example the capacity for analysis and synthesis or information management.

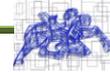


Together, the development of these competences should be the main aim of any new structure of veterinary studies, as delivering to the work market graduates who fulfill the expectations that society demands has to be the satisfactory consequence of our objectives.

The list of competences is not intended to be exhaustive nor exclusive, as excessive detail would impede a precise evaluation, but those that, in our opinion, bring together the minimum requirements that form an essential part of any training programme for veterinarians. Therefore, the lists as follows constitute the basic nucleus of competences common to all profiles. Nevertheless, in those cases that are pertinent, it is noted in brackets the profile or profiles which would require greater depth. According to the White Paper on Veterinary studies, graduates should reach the following competences:

**General (From the Tuning project)**

- G1. Capacity for analysis and synthesis.
- G2. Capacity to apply knowledge in practice.
- G3. To plan and make use of time.
- G4. General basic knowledge of the area of work.
- G5. Basic knowledge of the profession.
- G6. Written and oral communication in the language.
- G7. Knowledge of a second language.
- G8. Basic handling ability.
- G9. Research techniques.
- G10. Capacity for learning.
- G11. Information management techniques.
- G12. Capacity for criticism and self-criticism.
- G13. Capacity to adapt to new situations.
- G14. Capacity to generate new ideas.
- G15. Problem solving.
- G16. Taking decisions.
- G17. Working in a team.
- G18. Capacity to build relations.
- G19. Leadership.
- G20. Capacity to work in an interdisciplinary team.
- G21. Capacity to communicate with non-experts in the material.

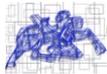


- G22. Appreciation of diversity and multiculturalism.
- G23. Ability to work in an international context.
- G24. Knowledge of cultures and customs of other countries
- G25. Ability to work by oneself.
- G26. Project Design and management.
- G27. Initiative and business spirit.
- G28. Ethical stance.
- G29. Concern for quality.
- G30. Desire for improvement.

**And Specifics:**

**A. Knowledge (Disciplines = to know)**

- A1. Generic knowledge of animals, their behavior, and notions of their identification.
- A2. Structure and function of healthy animals.
- A3. Rearing, caring, handling and well being of animals.
- A4. Basics of chemical and molecular physics of the principal processes which take place in an animal's organism.
- A5. Basic and applied principles of the immune response.
- A6. To know the basic fundamentals of different biological agents of veterinary interest.
- A7. Knowledge of the alterations of structure and function of the animal's organism.
- A8. Knowledge and diagnosis of different animal diseases, individual and collective, their preventative measures with special emphasis on zoonoses and diseases of obligatory declaration.
- A9. General basics of medical-surgical treatment.
- A10. Knowledge of the basics of the functioning and optimization of the reproductive system of animals and its repercussions for the environment.
- A11. The principles of food science and technology. Quality control of produced food and Food safety.
- A12. To know the organisational, economic and management aspects of all fields of the veterinary profession.
- A13. To know the rules and laws of the veterinary world and regulations about animals and the commercial use.
- A14. To know the rights and responsibilities of a Veterinary, making special reference to ethical principles.



**B. Skills and Abilities (Professional = to know how to do)**

- B1. To carry out the history and clinical exploration of animals.
- B2. To collect and send all types of samples with their corresponding report.
- B3. To carry out basic analytical techniques and interpret the clinical, biological and chemical results.
- B4. To diagnose the most common diseases by using different general techniques and instruments, including necropsy.
- B5. To identify, control and eradicate animal diseases, with special attention to zoonoses and diseases of obligatory declaration.
- B6. To attend to emergencies, and carry out veterinary first aid.
- B7. To carry out the most common medical-surgical treatments of animals.
- B8. To apply basic care which guarantees the correct functioning of the reproductive cycle and solves obstetric problems.
- B9. To assess and carry out epidemiological studies and therapeutic and preventive programs according to the norms of animal care, animal health and public health.
- B10. To evaluate and interpret the productive and health parameters of an animal collective, considering economic and welfare aspects.
- B11. To manage protocols and concrete technologies destined to modify and improve the different systems of animal production.
- B12. To respect and enforce animal welfare in all professional activities related to animal husbandry.
- B13. To minimize the risks of contamination and cross-infection in animal facilities and in the field.
- B14. To develop advisory and management tasks, technical and economic, in veterinary sector companies within a context of sustainability.
- B15. To carry out an inspection of the animal ante and post mortem and of food destined for human consumption.
- B16. To carry out sanitary control of the different types of food establishments. Implantation and supervision of quality management systems.

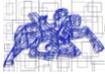


- B17.To carry out risk analysis, including environmental and biosecurity, and its evaluation and management.
- B18.To apply food technology to the production of food for human consumption.
- B19.Technical and economic assessment and management of companies in the veterinary area in terms of sustainability.

**C. Attitudes and Values (Academic = to know how to be)**

- C1. Analyze, synthesize, resolve problems, and take decisions in the professional environment of a veterinary.
- C2. Work in a team, uni or multidisciplinary, and show respect, evaluation and sensitivity towards the work of others.
- C3. Maintain ethical behaviour towards the profession and to society when exercising their responsibilities.
- C4. Relate information obtained during their professional work in a fluent way, spoken and written, to other colleagues, to the authorities and to society in general.
- C5. Write and present professional reports, whilst maintaining the necessary confidentiality.
- C6. Look for and process information related veterinary work.
- C7. Know and apply scientific methods in professional practice including evidence based medicine.
- C8. Know how to obtain professional assessment and help.
- C9. Demonstrate a desire to know how to use basic computer tools.
- C10. Have basic knowledge of a second language, especially in technical aspects related to Veterinary Sciences.
- C11. Be conscious of the need to maintain up to date knowledge, skills and attitudes of professional competences through a process of continuous training.

To be able to reach these learning objectives each subject in the field must, in turn, describe in the teaching project or guide which should be written each year and which should be approved by the Teaching Committee, the learning objectives of the subject, and relate each one of these objectives to the general and specific competences of the degree.



Each subject develops an evaluation system which ends with the verification that the learning objectives which were proposed have been attained. Therefore each subject must make sure that the objectives are reached and to ensure this, an evaluation system has been devised in which evaluation criteria are defined and finally a classification system is developed. All this information must be included in the teaching projects of the subjects

Describe how the Faculty collects the data required to ensure students are equipped with these Day-one skills (evidence of learning)

In writing these subject teaching projects the day one competences have to be considered. Therefore, when students pass different subjects this means that they have reached the proposed learning objectives.

The skills listed as day one competences: General professional skills and attributes, Underpinning knowledge and understanding and Practically-based veterinary competences (Annex IV new SOP), are included in the subject learning objectives of the study program.

### 5.1.2. THE TEACHING ENVIRONMENT

Describe the available staff development facilities, particularly in relation to teaching skills

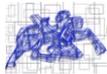
The University of León has developed a Program of Formation of Teaching Staff, organized by the Formation School. It programs various courses yearly, which aim to satisfy the demands of the



teaching staff, to prepare new teaching staff or to improve teaching skills of senior professors. Attendance to the courses offered is voluntary and free of tuition fee.

During the 2012-2014 period, the following courses were organized:

- ▶ Problem Based Learning (PBL) as an active methodology in Higher Education
- ▶ Moodle Advanced: learning and assessment resources
- ▶ Introduction to SPSS V.19 for teachers
- ▶ Audiovisual tools and interactive whiteboard: basic training course
- ▶ Cooperative work: a resource for teaching and a content for learning
- ▶ Information systems and guidance in college: Tutorial Action Plan (PAT)
- ▶ Quality Assurance Systems in Universities
- ▶ Resources for learning and evaluation with Moodle for EHEA
- ▶ Teacher resource coordination
- ▶ How to encourage student participation
- ▶ Moodle basic training: introduction to Moodle
- ▶ Teacher self-motivation
- ▶ Development of skills
- ▶ Launching of new courses in life sciences: challenges and solutions: interuniversity meeting
- ▶ Evaluating programs for Quality University Agencies
- ▶ Social networks in Education
- ▶ Licenses and patents
- ▶ Content development with the use of learning exe: basics concepts
- ▶ Teaching coordination
- ▶ The promotion of skills
- ▶ The promotion of generic skills
- ▶ Skills assessment using portfolios
- ▶ Communication and interpersonal relations
- ▶ Application of new technologies in Veterinary clinic subjects



- ▶ Development of generic skills
- ▶ Transversal skills for entrepreneurs in the University Higher Education
- ▶ New teaching technologies in veterinary clinical subjects.
- ▶ Writing in English for publication in the natural and healthcare sciences
- ▶ Voice care in the classroom: the drive of communication and the natural voice.
- ▶ Tools and basic skills for the development of scientific works.
- ▶ Cooperative work: a resource for teaching and a content to be learnt.
- ▶ Use of Google Calendar for the global schedule in an academic center
- ▶ Virtual learning 2.0. Online inter-university course
- ▶ Future of online training through Mooc platforms

Describe the available systems for reward of teaching excellence (e.g., accelerated promotion, prizes, etc)

The Reward for excellence in teaching is based on systems of additional economic retribution. The teacher can receive two types of economic complements, one at autonomic level and other at national level. To receive these complements the teaching activity is evaluated by University of León following a procedure based on the DOCENTIA model, which was developed by the Spanish National Agency for Quality Assessment and Accreditation.

For these evaluations, the teacher must prepare a self-evaluation report, to show his/her merits in teaching. Additional reports are made by the Faculty Board and the Department Council. Moreover the opinion of students is taken into consideration through questionnaires of satisfaction. The questionnaires of satisfaction are



carried out in accordance to the approved models in the corresponding evaluation protocols, which includes the objective criteria of the application.

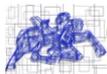
The University of León recently approved (July 2012) a new Manual for the Evaluation of Teaching Activity (EVADOC) that will be considered as a pilot Evaluation system to a better assess the teaching activity of the staff.

Describe other measures taken to improve the quality of teaching and of learning opportunities

### **Projects on Innovative Learning**

Every year, the University of León offers awards for Projects on Innovative Learning in a contest open to the entire teaching staff of the University. These projects may include the use of new technologies, as Virtual Campus, problem based learning methodology and other actions or activities to adapt the teaching to European Space of Higher Education. The Support for Teaching Innovation Plan of the University of León, set up in 2014, aims to promote quality and innovation in teaching. Innovative projects, orientated to the improvement of teaching/learning, and evaluation processes, and to the adaptation to EHEA, are funded. The projects developed by the Faculty staff and approved by University of León in the last courses are the following:

- ▶ Innovation in Veterinary Anatomy teaching in the Universities of León and Tras-Os-Montes e Alto Douro. Extension of an interuniversity network of teachers, implementation of new technologies and evaluation of ECTS system
- ▶ Clinical learning through interactive discussion of cases seen at the Clinic Hospital of Castilla y León



- ▶ Making videos on physical chest and abdomen examination in domestic animals: methods and techniques
- ▶ Improvements in the teaching of animal physiology in second year of veterinary degree
- ▶ Improvements in the teaching of functional electronic registration methodology in second year of veterinary degree
- ▶ European credits application and teaching innovation in the subject "Anatomy of wild and exotic animals" in the Degree in Veterinary"
- ▶ Development of professional competencies in Veterinary Medicine
- ▶ Teaching learning process based on activities in the mobile clinic
- ▶ Teaching of animal feed technology through collaborative learning
- ▶ Collection of physiological and pathological sounds in pets that facilitate their recognition by student
- ▶ Interdepartmental collaborative proposal: development of multimedia educational material on poultry production
- ▶ Application of new technologies and development of audiovisual resources as support in clinical practice teaching in the Veterinary Degree
- ▶ Face-to-face and online tutorials as a tool for adaptation and improvement of the academic performance of basic subjects of the Veterinary Degree
- ▶ Cooperative learning based teaching in the subject "feed manufacturing technology"



- ▶ Evaluation of skills: proposal of introduction in practicals of Veterinary Pharmacology subject.
- ▶ Role of the intern in the training of students of Veterinary Degree.

### **Promotion of Teaching Staff Mobility**

The University of León participates in different national and international mobility programs such as Erasmus, SICUE/Seneca and others. Thus the Erasmus programs for teachers and staff have been followed during last years and several professors from the Veterinary Faculty of León have had the opportunity to spend an average of one week in other universities in the United Kingdom, Italy, Portugal, etc. In addition, several professors coming from some European universities have been invited to teach in different subjects of the Veterinary Degree.

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#### 5.1.3. THE EXAMINATION SYSTEM

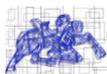
Describe the examination system of the Faculty, in particular:

- ➡ Is there a central examination policy for the Faculty as a whole? If 'yes', by whom is it decided?
- ➡ Are there special periods (without teaching) during the year for examinations?

With regard to the type of examinations, there is no central policy and each teacher can decide how he will examine his students.

Periods for examinations are determined by the Government Board of the University of León.

Usually, three periods are allowed for non-EHEA degree: (1) January-February for subjects taught during the first semester, (2) June-July



for second semester subjects and (3) September for reexamination of students who did not pass their examinations in February or June. For EHEA degree in Veterinary Medicine, Students have the right to two examination sittings per subject, usually January and February for subjects of the first semester, and June and July for subjects of the second semester.

The examination calendar adapted to these periods is approved each year by the Faculty Board, and published far in advance on the Faculty web page. During these examination periods neither lectures nor practical classes are held.

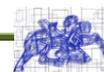
Moreover, there is an extraordinary period, during the month of December, directed only to students with a maximum of two subjects left to finish their studies.

➔ What form(s) of examination are used (written papers, multiple-choice questions, oral, practical, clinical examination, continuous assessment, etc.)?

The assessment tests may be face-to-face or not. Presential tests may be oral or written. Non-presential tests are performed by computer systems recognized by the University of León.

In the EHEA Degree, ongoing (continuous) assessment is a general rule, with different tasks being carried out for the objective valuation of the level of knowledge and competences acquired by the student. Continuous assessment includes monitoring attendance at theory classes and evaluating the student's skills and attitudes; the student's ability to work alone is evaluated through the presentation of clinical case histories, clinical scenarios or problems, etc. Activities carried out through the year are completed with a final exam.

Various methods of evaluation are used in the different subjects. Most subjects assess theoretical knowledge and practical skills separately. The first is usually done by means of written exams. The



methods for evaluation are: presentation of written works, classroom presentations, resolution of practical cases, practical lab work, learning portfolio, self-assessment tests, virtual assessment activities, written exams, oral exams, etc. See Table.

### Evaluation methods

Continuous Evaluation: 60% of the subjects (mainly in Degree).

### Evaluation of Theory

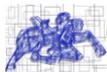
Percentage of subjects	Written examination	Problems resolution
33%	X	
66%	X	X

### Evaluation of practices

Percentage of subjects	Only attendance	Report of practice	Exam of pract. activ.
18%	x		
38%		x	
44%		x	x

► Is use made of external examiners?

The only external examiners are those practitioners carrying out tutorial work with students in the core subject Obligatory extramural fieldwork ("Estancias").



- ➔ How many retakes of an examination are allowed?
- ➔ Do students have to pass the examination within a certain time?

The maximum time a student can be enrolled is computed in permanence units (1 permanence unit is a semester registered). In the EHEA Degree in Veterinary Medicine, the maximum number of permanence units to be used by the student is 20. However, this total only takes into account the number of times that the student has attended the examination. Thus, if a student is not physically present on the day of the examination it does not enter into the total. As stated before, each course has a fixed final examination date.

- ➔ Do students have to pass an examination before they can start other courses?

In general there are also no restrictions between courses to enter or to be able to matriculate. Only for students finishing their first year, if they have not passed 12 credits are dismissed. On the other hand, to be enrolled in the core subjects "Practicals" and Obligatory extramural fieldwork ("Estancias") students must have passed 150 credits. In the same way, only the students who have passed 210 credits can perform the "Degree Dissertation".



#### 5.1.4. EVALUATION OF TEACHING AND LEARNING

Describe the method(s) used to assess the quality of teaching and learning in the Faculty

Indicate whether the evaluation is a Faculty procedure, or one set up by individual departments, by students or by individuals

Indicate the use of external evaluators

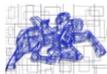
Describe the role of students in the evaluation of teaching and teachers

Describe the follow-up given to the evaluation

External assessment of quality is done at a national level through the program called National Plan for Quality of Universities. This plan is carried out by the Ministry of education through the ANECA (National Agency for Quality Assessment and Accreditation of Spain) and by the regional agencies for quality assurance; for instance in Castilla y León, ACSUCYL (Quality Assurance Agency for the University System in Castilla y León), member of ENQA (European Association for Quality Assurance in Higher Education) since 2010.

At the University of León, assessment of teaching quality is the responsibility of the Evaluation and Quality Office. The Office's mandate is to promote evaluation and improvement processes in all aspects of the institution, with the purpose of establish action plans bases on those previous analysis, as well as to provide to the University of León with a Quality Guarantee System, as required by the EHEA.

The Faculty should write an annual the self-assessment report for the Degree. This document is approved by the Faculty board and evaluated externally. In 2011-12 course, the annual report was positively evaluated by ACSUCYL (Quality Assurance Agency for the University System in Castilla y León), highlighting that the Quality Guarantee System of the Faculty is being properly developed.

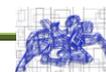


The model of evaluation of the teaching activity of the teaching staff of the University of León has been developed as a consequence of the participation of this University in the Teaching Performance Assessment (DOCENTIA) of the National Agency for Quality Assessment and Accreditation of Spain (ANECA). Evaluation procedures require input from various agents involved in staff teaching evaluation, including:

- ▶ The teacher, who must prepare a self-evaluation report to show his merits in teaching
- ▶ Students, who complete a survey on teaching quality for each of their teachers
- ▶ Academic officials (Faculty Deans, Centre Directors and Heads of Department), who are required to fill a report on each of the teachers
- ▶ The Evaluation and Quality Office, which provides the institutional data required for evaluation of staff teaching quality, as well as advice on technical issues as required by the evaluation committee.

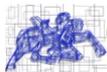
As mentioned above, the evaluation implies a system of satisfaction questionnaires for the students. This system has the aim to serve as a guide for teachers to know the perception their students have about their teaching activities, and thus to recognize the positive aspects and to identify the teaching aspects subject to improvement. Two methods have been used for data collection: paper questionnaire distributed and collected in the classroom by survey takers during ordinary class schedule; and electronic questionnaire, available on the intranet of the University.

The questionnaire consists of 3 question blocks. The first one includes 17 questions on teaching where the student values in a 5 categories scale the degree of agreement with the proposed affirmations, being 1 "strongly disagree" and 5 "strongly agree". The second block includes 8 questions on the student to provide a context. The third block contains 2 open questions where the student may reflect the opportune comments on teaching activity of the teacher in the subject.



The questionnaire collects the evaluations of the students and they have to award marks for each phrase from 1 (totally disagree), 2 (slightly disagree), 3 (agree), 4 (quite agree) y 5 (totally agree). The results of the Veterinary Faculty for the academic year 2013- 2014 were:

	Vet. Fac.	Univ.
1. He/she clearly informs on course planning (program, objectives, bibliography, tutorship)	4.0	3.8
2. He/she clearly informs on evaluation criteria and methods	3.9	3.8
3. There is an adequate coordination between teachers	3.9	3.5
4. Face-to-face sessions begin and end punctually	4.1	3,6
5. Subject develops according to the established	4.4	3,9
6. He/she informs on absences and incidences in a timely and appropriate manner	4.2	4.0
7. Taught contents adjust to the program	4.0	4.0
8. He/she adequately address his/her tutorships (is accessible and solves doubts)	4.1	4.0
9. He/she presents and transmits the contents clearly and tidily	3.8	3.7
10. He/she provides with study materials, texts, ..., useful to understand the subject	3.8	3.6
11. He/she uses the institutional teaching platforms	3.8	3.6
12. He/she promotes work and reflexion, synthesis and reasoning	3.9	3.6
13. He/she takes care to promote the students's interest of for the subject	3.7	3.5
14. He/she motivates critical and active participation of students in the development of the subject	3.7	3.5
15. Development of the subjects is coherent with public evaluation criteria	3.9	3.8
16. He/she complies with the establish criteria and systems for evaluation	4.1	3.9
17. In general, I' m satisfied with teacher's performance	3.9	3.6



### 5.1.5. STUDENT WELFARE

Describe any measures taken to protect students from zoonoses (e.g. rabies) and physical hazards.

The University has a Service for Risks Prevention, which performs risk assessments and provides solutions to avoid them. This service does not depend of the Faculty, but is a centralized Service of the University of León. Each area of activity (e.g. veterinary teaching hospital, farm, laboratories) is covered by its own specific risk prevention scheme, and all schemes provide information on steps to be taken in situations of general risk.

Describe the facilities (not related to the teaching programme) which the establishment provides for students

The University Halls of Residence provide accommodation for the community, and contribute to their social, cultural and scientific development.

In addition to the Halls – Colegio Mayor Universitario-, the University also provides student flats and visitors' accommodation at the campus.

The sport facilities of the University of León offer the entire University Community different kinds of possibilities to enjoying sports, competition, and free time leisure activities. In the campus of Vegazana there are a multisport pavilion, a gymnastics pavilion, a front-tennis court, a football court, a football indoor court, 4 tennis courts, 2 paddle courts and 1 and an outdoor athletics and multisport track.



Additionally, the Sports Service of the University of León organizes some sport activities for the staff in general (teachers, support staff and students), like gymnastics, judo, karate, kick boxing, taekwondo, golf, tennis, pilates, yoga, tennis, , swimming, dances, trekking, skiing, climbing, spinning, bicycle tourism, hiking, etc.

The cultural offer at University of León brings together different proposals in the areas of music, scenic, film and visual arts, and workshops on creation, as well as practical photography, theater, writing, painting, sound and dance.

To conduct these activities, the University of León has one 212 seat theater, one exhibition gallery, two video libraries and one audio library, on top of other three small rooms. Concerts are held in a showground for more than 700 people.

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Describe the guidance offered by the Faculty (or its parent institution) for students with problems (social problems, study problems) as well as for future career development or job selection

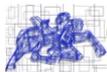
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Students with financial difficulties may be granted fellowships from the Spanish Ministry of Education and from the Government of Castilla and León Community, which are directed to “general purposes and transport costs”, and are awarded depending on personal and family incomes and academic performance.

The Support Unit for students with disabilities of the University of León provides direct attention to all those students of the University of León community. This unit organizes programs for sensitizing, as an attempt to make the University Community more aware and help in as a volunteer working with disabled people or people with problems related to social integration.

Apart from the Spanish general health insurance coverage, all the students have the health insurance coverage under the “Scholar Insurance”, which is included in their enrolment fees. This student



insurance provides medical assistance in a wide range of circumstances described in the enrolment information, which can be obtained at different collaborating centers (hospitals, diagnostic centers, etc.).

The Center for Employment Information and Guidance of the University of León promotes the orientation of graduates on job finding, and assists the university students in finding their place as professionals in the labor market. They provide information and orientation on the possibility of carrying out paid placements in private companies, provide a link between students or graduates and companies or official bodies, offer orientation sessions on employment and job seeking, and facilitate agreements on the job training.

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## 5.2. COMMENTS

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Please give general comments about the quality of the teaching programme under the above headings

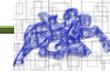
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The quality of the teaching programme is satisfactory according to the regulations of Teaching and the Evaluation of Learning developed by the University of León and is consistent with the University's overall system.

Adaptation to the EHEA has progressed in a satisfactory manner. ACSUCYL Agency has evaluated positively the EHEA Degree in Veterinary Medicine of the University of León.

However, there is a lack of integration of Departments into the Faculty and failure to collaborate between Departments. This state of affairs makes it difficult to work together on a shared teaching project closer to the everyday realities of veterinary work.



Also there is an excessive student workload and timetabled contact hours, leading to severe limitations on independent work and individual study.

Students are implicated in the monitoring of courses since there are student representatives in all the Faculty Committees, and they have a large number of representatives in the Faculty Board (25%). In addition, they also take part in the evaluation of the academic staff every year. Nevertheless, their participation should increase in order for more feed-back to be included in changes.

The funding available to Departments for teaching activities is clearly insufficient and also there is a heavy teaching load for academic staff.

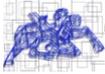
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### 5.3. SUGGESTIONS

With regards to examinations, the number of written exams, particularly test or multiple choice exams is excessive when compared to continuous evaluation or other types of examination.

Each of the teachers responsible for courses can devise their own types of test, with nobody else evaluating the suitability of the examinations set. It would be better to incorporate registers which guarantee the learning objectives of the students have been reached in every subject. In many subjects, attendance at practical sessions is considered sufficient to pass, which does not guarantee that students have acquired the necessary skills and abilities proposed. It would be better to incorporate within the Veterinary Faculty Quality Guarantee System evidence that the students, before finishing their studies, have acquired Day-one competences.

It would be very valuable to introduce a system of final evaluation by external examiners, for example from professional associations, who could ensure that students displayed all the required basic knowledge and skills. However, the introduction of such a system is not feasible under current Spanish legislation.

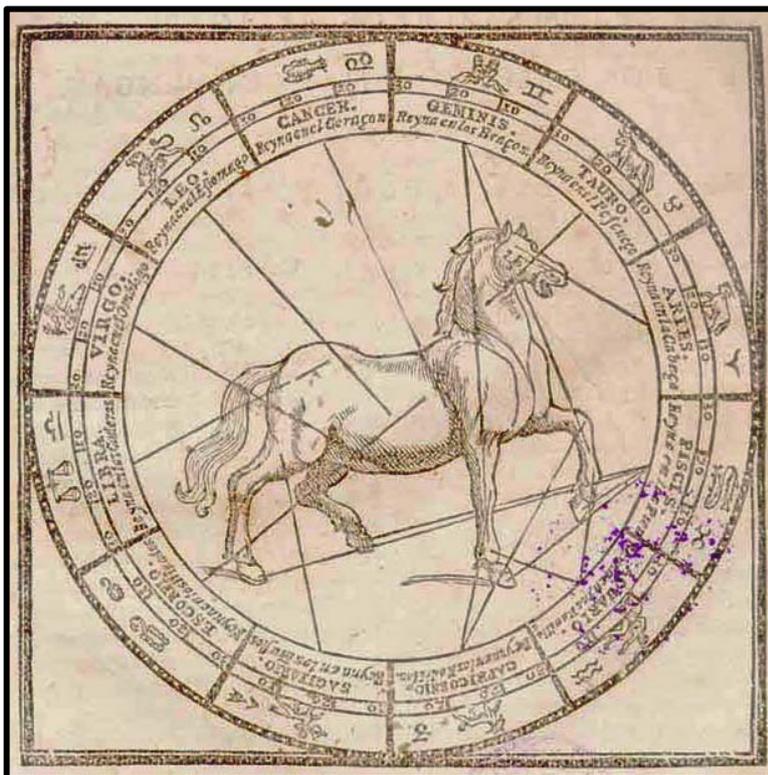


Co-ordination meetings between subjects should be programmed and registered, in such a way that an effective co-ordination is guaranteed especially on the content of subjects within the same course, as well as between courses.

The funding available to Departments for teaching activities is clearly insufficient.

Teaching quality should be improved by decreasing teaching load for academic staff. To achieve this goal is necessary to increase the number of academic and support staff, and to reduce the number of students. More funding will be necessary in order to solve these issues adequately.

It would be necessary encouraging teachers to attend the teacher training courses, in order to become familiar with the methods required for the European Higher Education Area.



## CHAPTER 06

# FACILITIES AND EQUIPMENT

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## CHAPTER 06. FACILITIES AND EQUIPMENT

### 6.1 FACTUAL INFORMATION

#### 6.1.1 PREMISES IN GENERAL

Please give a general description of the site(s) and buildings occupied by the Faculty and include a map

The Veterinary Faculty is integrated in the Campus of Vegazana, together with the other 13 centres that form the University of León except the School of Agrarian Engineering which is located outside the Campus.

The Campus of Vegazana is located in the outskirts of the city of León, at about 2km to the NW of the city centre. The University Campus is well connected and it can be accessed by bus (lines 3, 4 and 12), by private vehicles (since it is close to the city's by pass expressway) or even on foot since it is so close to the city centre (20-30 minutes walking).

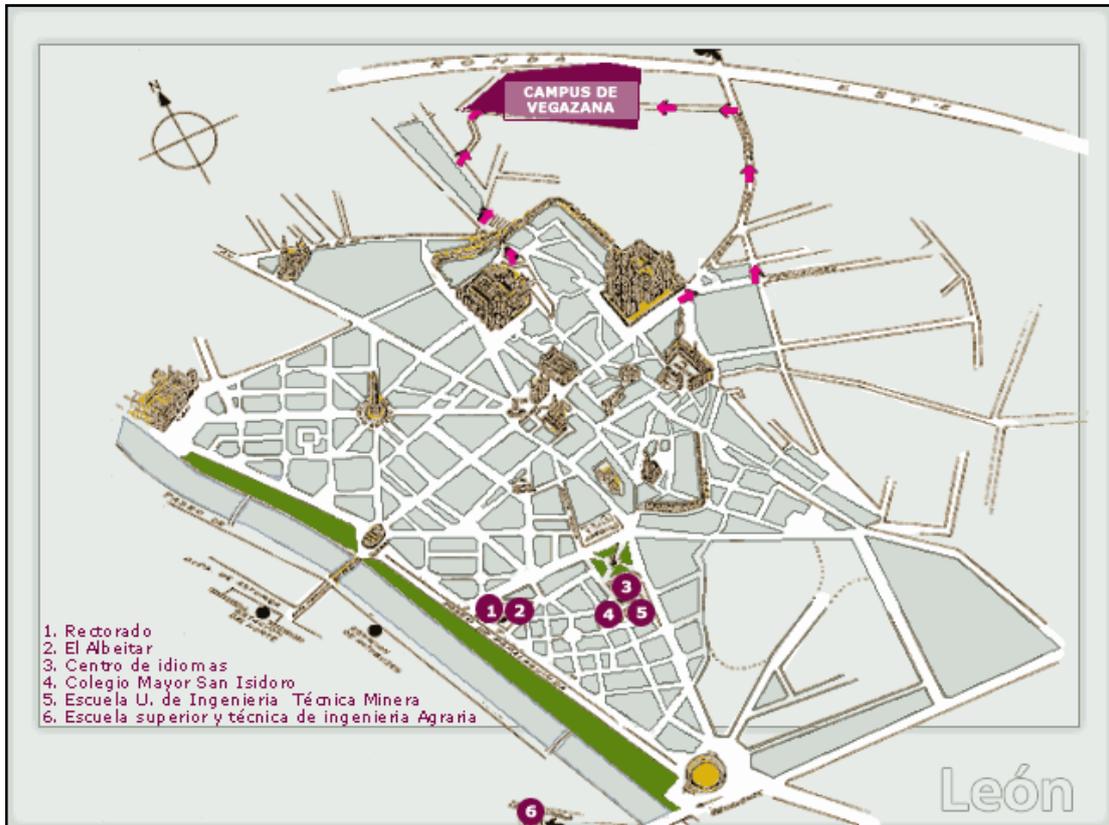
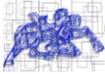


Figure 6.1. Location of the University Campus (Campus de Vegazana) in the city

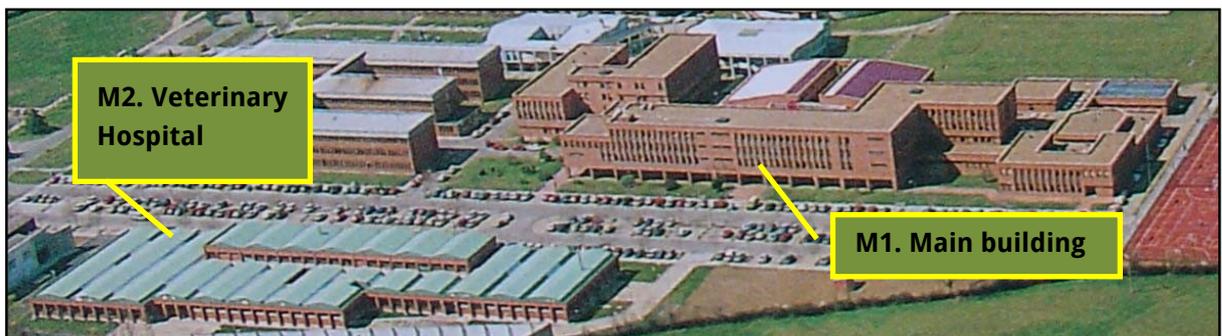
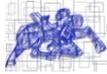


Figure 6.2. Location of the **Main building (M1)** and **Veterinary Teaching Hospital (M2)** in the Campus





The building, constructed in 1982, consists of five floors (basement, ground, 1st, 2nd, and 3rd), which put together amount of 17,118 m<sup>2</sup> constructed area and 15,378 m<sup>2</sup> of usable area.

The premises of this building are:

A. GROUND FLOOR:

- ▶ Hall.
- ▶ Administration and Deanery.
- ▶ Lecture rooms: 1A, 1B, 2-8.
- ▶ Food Technology Area (Dept. of Food Hygiene and Food Technology).
- ▶ Animal Production Area (Dept. of Animal Production).
- ▶ Surgery Area (Dept. of Medicine, Surgery and Anatomy).
- ▶ Necropsy room (Dept. of Animal Health).
- ▶ Dissection room (Dept. of Medicine, Surgery and Anatomy).
- ▶ Library.
- ▶ Computer room.

B. FIRST FLOOR:

- ▶ Food Technology Area (Dept. of Food Hygiene and Food Technology).
- ▶ Foodstuff Processing Unit.
- ▶ Animal Production Area (Dept. of Animal Production).
- ▶ Biochemistry Area (Dept. of Molecular Biology).
- ▶ Toxicology Area (Dept. of Biomedical Sciences).
- ▶ Physiology Area (Dept. of Biomedical Sciences).
- ▶ Former animal house.

C. SECOND FLOOR:

- ▶ Human Nutrition and Food Science Area (Dept. of Food Hygiene and Food Technology).
- ▶ Animal Production Area (Dept. of Animal Production).
- ▶ Anatomy Area (Dept. of Medicine, Surgery and Anatomy).



- ▶ Microbiology/Infectious Diseases Area (Dept. of Animal Health).

#### D. THIRD FLOOR:

- ▶ Pharmacology Area (Dept. of Biomedical Sciences).
- ▶ Pathological/Parasitology Area (Dept. of Animal Health).
- ▶ Animal Production Area (Dept. of Animal Production).

Each department has a laboratory for teaching activities (in some occasions, one laboratory may be shared by two departments) and several laboratories for research purposes (see Table 6.5.).

The plans of every floor can be seen in Anex I

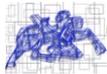
**M2. Veterinary Teaching Hospital (see 6.1.2.).**The hospital is in front of the main building and is the most important complement of the main building. Most of the animal hospitalization areas, as well as the clinic zones, diagnostic laboratories, surgery rooms, etc. are in the Hospital building (see 6.1.2.)

**M3. Experimental Farm (see 6.1.3.1.).** The university Farm is in a property of 130,000 m<sup>2</sup> situated 1.5 km away from the faculty down a road. It has several buildings (General services, pigs, cattle, birds, ovine, dogs, experimental warehouse, purifying plant, etc.) which put together amount of 5,412 m<sup>2</sup>. The access is easy and fast, only a seven minutes driving from the Campus. The university has a 20-seat microbus to drive the students to the Farm. This Farm has two kinds of warehouses: a) those of an exclusively teaching character and b) those of experimental character, which are part of the Animal House which is in the Campus, next to the Faculty of Veterinary.

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### 6.1.2 PREMISES USED FOR CLINICS AND HOSPITALISATION

The Veterinary Teaching Hospital is a building with three floors and a surface of 4,370 m<sup>2</sup>, located in front of the main building of the



Veterinary Faculty. In 2014 it was carried out a modification of the a) small animals hospitalization area, and b) infectious animals area. Also it has been habilitated an outside walk area for small animals.

The Hospital is organized as follows: (see Annex II)

- ▶ Administration and maintenance area:
  - A. Director and Manager Office.
- ▶ Clinical services area:
  - B. Small and exotic animals unit.
    - Reception.
    - Waiting room.
    - General consulting room for animals from shelter
    - General consulting rooms.
    - Specialist consulting rooms.
    - Radiology room
    - Echography room
    - Endoscopy room
    - Hospitalization area (see table 6.2).
      - Canine room.
      - Feline room.
      - Other animals room.
      - PreUCI room
      - UCI room.
    - Surgical area (see Table 6.2.)
      - Presurgical room.
      - Surgical suites.
  - C. Equine, food production and wild animals unit.
    - Reception.
    - Exploration rooms.
    - Hospitalization area (see Table 6.2.):
      - Equine.
      - Small ruminants.
    - Surgical area:
      - Presurgical room.
      - Surgical suites.
      - UCI room.
  - D. Reproduction area (common to both clinical units):
    - Small ruminants and pigs room.
    - Equine room.
    - Laboratories.
  - E. Infectious diseases and necropsy area.
    - Infectious diseases zone:
      - Consulting room.
      - Laboratory.
      - Hospitalization area



- ▶ Hospitalization area:
  - Small animals, small ruminants, pigs and equine.
  - Necropsy area (not in use).
- F. Support and diagnostic unit.
- G. Medication reservoir.
- ▶ Teaching area:
  - H. Several rooms, offices and libraries for teaching activities.

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

	Species	No. places
<b>Regular hospitalisation</b>	cattle	0
	horses	21+1 neonates*
	small ruminants	25 (1 room)**
	pigs	0
	dogs	17
	cats	3
	other	1 room (exotics and wild animals)
<b>Isolation facilities</b>	farm animals and horses	2
	small animals	1 room***
	other	

\* The hospitalization boxes can be used to accommodate cattle.

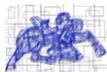
\*\* The room can also accommodate pigs.

\*\*\* With appropriate cage system can accommodate different animal species.

### 6.1.3 PREMISES FOR ANIMALS

Give a description of the facilities for rearing and maintaining normal animals for teaching purposes

The University has a Farm and an Animal House to keep healthy animals.



### 6.1.3.1. UNIVERSITY FARM

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The University Farm has capacity for 50 cows, 400 sheep, 60 sows, 440 growing pigs and 5,500 broilers. These are mainly teaching facilities.

#### AREA OF ANIMAL EXPERIMENTATION

There are four buildings:

1. One is for housing of small ruminants (with boxes of different sizes, 7 rooms);
2. The second one includes an examination room, a small laboratory and a central room with 7 boxes for horses, courts and stores (this building is used for the stop of breeding service, along with another 12 external boxes);
3. The third one includes 6 kennels.
4. The fourth is used for partridges breeding.

#### AREA OF ANIMAL PRODUCTION

It includes 4 sections: porcine, ovine, bovine (milking) and avian.

Places:

- 50 dairy cows
- 400 small ruminants
- 60 sows
- 440 growing pigs
- 5,500 broilers

There is also a building with 6 boxes for housing of breeding horses and 12 boxes for housing of mares.

Although the University of León is the owner of the farm, it is managed by a private company (SERCLIVET). All the animals are owned by the University. The farm is used for practical teaching of different subjects of the Veterinary Degree, mainly related to Animal Production and Health topics. These are:

- General Pathological Anatomy
- Special Pathological Anatomy
- Animal breeding and health
- Ethnology and Ethology



- Care and Handling of Animals in a Professional Veterinary Context
- Surgical Pathology and Anesthesiology and Radiology
- Animal Production and Veterinary Hygiene
- Clinical Propaedeutics
- Reproduction and Obstetrics
- Practicals (Animal Production)

#### 6.1.3.2. ANIMAL HOUSE

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The Animal House (<http://servicios.unileon.es/animalario/>) of the University of León is the Administrative Entity (with the rank of General Research Service, depending from the Vice presidency of Research) which groups the buildings, facilities and staff specially attached to animal research, which do not specifically belong to the Departments for the discharge of their duties.

The specific facilities of the Animal House include:

A) A specific building called animal house (it works as official see), is in front of the main building.

B) The facilities in the University Farm.

**A.** The facilities and equipment available in the Animal House are:

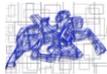
**A.1.** Area of rodents and lagomorphs: lodging (13 rooms), quarantine (2 rooms), services (2 warehouses and 1 laboratory) and cleaning (3 rooms).

**A.2.** General purpose and fish farming: 2 large rooms, 4 medium-sized rooms, 4 small rooms and 1 warehouse.

At present, these premises are not used for teaching in the Veterinary Degree, but they are used for research purposes.

**B.** The facilities in the University Farm are:

- Lodging for ruminants I (6 enclosures with external courtyard and several warehouses)
- Lodging for ruminants II (1 enclosure for bovine and 1 area for ovine)
- Lodging for dogs (8 enclosures with external courtyard)
- Greenhouse
- Aquatic ponds
- Warehouse for aquaculture



- Laboratory

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

The same room should not be entered under two or more headings, even if it is used, for example, for both practical and supervised work

These premises are located in the main building and in the hospital.

Table 6.2. Premises for clinical work and student training

Small animals	no. consulting rooms	8
	no. surgical suites	4
Equine and food animals	no. examination areas	2
	no. surgical suites	3
Other *: ecography, endoscopy, radiography, RMN rooms		6

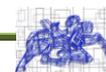
Table 6.3. Premises for lecturing

Number of places per lecture hall									
Hall	No.1a	No.1b	No.2	No.3	No.4	No.5	No.6	No.7	No.8
<b>Places</b>	128	123	266	266	150	88	88	88	64
<b>Total number of places in lecture halls: 1,249</b>									

In addition, it is possible to use other lecture rooms placed in another building of the University ("Aulario"), located 100 meters from the main building.

Table 6.4. Premises for group work (number of rooms that can be used for supervised group work)

Room	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
<b>Places</b>	24	24	12	14	12	10	40	15	10
Room	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18
<b>Places</b>	15	6	14	5	15	6	6	6	10
Room	No. 19	No. 20	No. 21						
<b>Places</b>	30	24	20						
<b>Total number of places in rooms for group work: 318</b>									



Rooms No. 1-3: Dpt. Animal Production; No. 4-7: Dpt. Animal Health; No. 8-10: Dpt. Food Hygiene and Food Technology; No. 11: Dpt. Molecular Biology; No. 12: Dpt. of Applied Chemistry and Physics; No. 13-15: Dpt. Biomedical Sciences; No. 16-21: Veterinary Teaching Hospital.

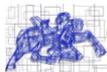
These rooms are for general purpose (libraries, meeting rooms) and can be used by the students as work in group rooms. In addition, students may use the desks placed at the hall of the main building.

Table 6.5. Premises for practical work (number of laboratories for practical work by students)

<b>Laboratory</b>	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8	No. 9
<b>Places</b>	3	4	16	24	20	22	20	20	20
<b>Laboratory</b>	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15	No. 16	No. 17	No. 18
<b>Places</b>	40	20	30	10*	10*	10*	20	15*	20*
<b>Laboratory</b>	No. 19	No. 20	No. 21	No. 22	No. 23	No. 24	No. 25	No. 26	No. 27
<b>Places</b>	10*	3 <sup>a</sup>	20 <sup>a</sup>	5 <sup>a</sup>	20	14 <sup>a</sup>	6 <sup>a</sup>	6 <sup>a</sup>	28
<b>Laboratory</b>	No. 28	No. 29	No. 30	No. 31	No. 32	No. 33	No. 34	No. 35	No. 36
<b>Places</b>	16	30	16	12	12	15	40	20	20
<b>Laboratories</b>	No. 37	No. 38	No. 39						
<b>Places</b>	20	20	20						
<b>Another facilities**</b>	No. 1 <sup>b</sup>	No. 2 <sup>c</sup>	No. 3 <sup>c</sup>						
<b>Places</b>	25	10	10						
<b>Total number of places in laboratories: 677</b>									
<b>Total number of places in another facilities: 45</b>									

Laboratories No. 1-6: Dpt. Animal Production; No. 7-11: Dpt. Animal Health; No. 12-22: Dpt. Food Hygiene and Food Technology; No. 23: Dpt. Molecular Biology; No. 24-27: Dpt. of Applied Chemistry and Physics; No. 28-30: Dpt. Biomedical Sciences; No. 31-39: Veterinary Hospital.

<sup>a</sup>Laboratories used mainly for research; <sup>b</sup>Pilot plant of Food Technology; <sup>c</sup>Surgery theatres.



Please give a brief description of health and safety measures in place in the premises for practical work and in the laboratories to which undergraduate students have access

At the beginning of the practical lessons of each subject, students are informed about the risks associated to the different products which are to be used. This information is offered written.

The use of laboratory coat is compulsory in all the activities carried out in the laboratories. In addition, if products with chemical, physical or biological risks are used, the use of protective glasses and gloves is compulsory. The laboratories have extraction cabins for the use of some chemical products. Also, there are laminar flow cabinets in some laboratories that are used when needed.

In the dissection room, students must pass through a pool with a disinfectant solution for entry and exit. They wear plastic coats, hoses and masks.

The supervision of these good practices must be carried out by the Dean and the Head of the Departments. Teaching staff must take care of the implementation of these measures. Students should follow them. The University of León has an Occupational Risk Prevention Unit Plan which explains the responsibilities and measures (<http://servicios.unileon.es/unidad-prevencion-riesgos-laborales/>).



### 6.1.5 DIAGNOSTIC LABORATORIES AND CLINICAL SUPPORT SERVICES

Briefly describe the facilities available for clinical diagnostic work.

#### 6.1.5.1. DIAGNOSTIC LABORATORIES

The Faculty has different diagnostic laboratories located in the main building and in the Veterinary Teaching Hospital.

##### **Diagnostic laboratories in the main building:**

In the main building the facilities of the following clinical support services are located: postmortem room and histopathology laboratory, including immunohistochemical methods for the main animal diseases; parasitology, microbiology, including bacteriological culture and PCR methods, serology, molecular genetics (parenthood, hereditary diseases carriers, and avian sex determinations), pharmacology and toxicology, and analysis of raw materials for foodstuffs.

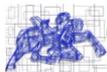
In the hospital, there is a laboratory of Clinical Analysis, haematology, biochemistry and a laboratory of the reproduction service with freezing capacity.

In general, the laboratories of the Faculty have quick shower mechanisms, first aid kits and fire extinguishers.

##### **Diagnostic Services located in the Veterinary Teaching Hospital:**

There are two diagnostic services which belong to the small animals section:

**A. Laboratorial Diagnose:** it includes two rooms for general analysis (cellular, blood analysis, antibiograms, cytology, etc.).



**B. Imaging Diagnose:** it includes echography, radiology, and magnetic resonance, endoscopy and arthroscopy. The premises are:

- Echography room
- Endoscopy room
- Small animals radiology room
- Food animals and equine radiology room
- Digital control and processing of radiographic images room
- Magnetic resonance imaging room

## **CLINICAL SUPPORT SERVICES**

### **A. SMALL ANIMALS UNIT:**

#### **Internal Medicine**

- Internal Medicine

#### **Specialized services:**

- Cardiology
- Ophthalmology
- Hematology
- Gastroenterology
- Nephrology and Urology
- Endocrinology
- Neurology
- Dermatology

#### **Surgery**

- Traumatology
- Soft Tissue Surgery
- New Pets, Exotic animals
- Wild Animals

#### **Reproduction**

- Reproductive medicine
- Semen Freezing and semen banking
- Reproductive surgery

**Services of spaying and neutering for local shelters.** For this, dogs planned be adopted are sent to the Veterinary Teaching Hospital. The animals are examined, blood samples are taken to check for infectious and parasitic diseases and spayed. The internal veterinary and volunteers or regular course students are involved in all the process.

**B. LARGE ANIMAL UNIT:****Internal Medicine****Surgery**

- Orthopedic surgery
- Soft tissue surgery
- Abdominal Surgery
- Endoscopy
- Anesthesia
- Rehabilitation Service

**Reproduction**

- Semen recollection and refrigeration
- Embryo transfer
- Semen sexing
- Reproductive technologies and Medicine
- Stallion station: the Equine area has had a stallion station, throughout an agreement with the services of equine breeding (cría caballar) of the Spanish Army. From February to June 6-8 stallions were located in the University Farm as breeding stallions. These animals serve as stud stallions for the local breeders and also serve as material for practical work for undergraduate students, residents and Ph.D. students. The last year this service was not available, but the Hospital provided the reproductive attention to mares in the Hospital, using refrigerated semen.

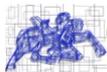
**C. REPRODUCTION SERVICE**

The Reproduction Service deals with the obstetrics, gynecology, andrology and techniques for reproduction of both small animals and food production and equine, specially food production animals. Apart from laboratories, it includes one room for food production and equine and one for small animals and porcine.

**D. OTHER SERVICES:****Diagnosis Imaging**

- Nuclear magnetic resonance (RMN)
- X-rays
- Echography

It includes echography, radiology, and magnetic resonance, endoscopy and arthroscopy. The premises are:



- Echography room
- Endoscopy room
- Small animals radiology room
- Food animals and equine radiology room
- Digital control and processing of radiographic images room
- Magnetic resonance imaging room

**Infectious Diseases Service:** consists on a consultation room, a laboratory and a hospitalization area.

**Necropsy area:** it consists of a necropsy room (178 m<sup>2</sup>), a refrigeration room, a freezing room and several premises for storage. At present, these premises are not in use (the necropsy service is carried out in the main building).

**Medication Reservoir:** it supports all the services, by the administration of medicaments and other kind of material to the clinical services cited above. It consists of several premises for the management, storage and dispensation of all these material.

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#### 6.1.6 SLAUGHTERHOUSE FACILITIES

Describe briefly the slaughterhouse facility to which the Faculty has access, including distances from the Faculty and level of activity

Obviously, the Faculty does not have a slaughterhouse, but has easy access to the slaughterhouse owned by Carracedo-Llamas S.L. (a private slaughterhouse) since 2009 (former Municipal slaughterhouse owned by the Local Authority of León). The slaughterhouse is homologated and duly authorized for the intra-European commerce of meat, with the health register number 10.06981/LE.

This slaughterhouse is in the outskirts of the city, about 5 km away from the Faculty, to the West, and has a surface of 22,000 m<sup>2</sup> (the main building, the cutting plant and the cold storage room occupy



5,000 m<sup>2</sup>). The practice and sampling for the teaching activities and the non-regulated practices of the 2nd cycle students in the summer holidays take place in this slaughterhouse. At present, the slaughterhouse is under remodeling. In addition, students may visit other slaughterhouses.

For the slaughter and processing of animals there is a line for bovine/equine. The number of slaughtered animals in the year 2011 was 13,591 bovine and 795 equine. It has a cold storage store and a cleaning and disinfection centre. At present, there are 16 full time and 4 temporary workers.

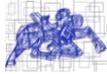
#### **PREMISES**

The main premises of the slaughterhouse are:

- Stables to house the animals to be sacrificed per day
- Slaughtering room partially mechanized
- Room for the treatment of the offals, viscera, etc.
- Five refrigeration rooms
- One freezing tunnel
- Two freezing rooms
- One quartering room

Apart from these, there are other premises for the waste water depuration, cleaning and disinfection of vehicles, SANDACH residues treatment, stores, offices, coffee room, etc.

The official inspection is carried out by two Veterinarians of the regional government (Junta de Castilla y León), who may be assisted by another Veterinarian of the slaughterhouse.



### 6.1.7 FOODSTUFFS PROCESSING UNIT

Describe briefly any access that the Faculty has to foodstuff processing units

The Faculty has in its main building a pilot plant for food processing and manufacture of cheeses and sausage, mainly. It also keeps cooperation relationships with some food processing companies, mainly through the Department of Hygiene and Food Technology, in order to carry out practices and technical visits.

The pilot plant is located in the main building of the Faculty, in the ground floor (Department of Food Hygiene and Food Technology), with an usable area of 200 m<sup>2</sup> (see attached map) and the following lines of food production.

- dairy products: curd, cheeses, butter
- meat products: sausages, both cooked and cured
- canned vegetables
- alcoholic beverages

The equipment is:

- two ripening rooms
- one cold storage rooms
- one freezing room
- equipment for ultra-filtering of foodstuffs
- equipment for pasteurization
- equipment for the manufacturing of cheese and sausages on a semi-industrial scale

The food pilot plant is used for practical teaching in the subject Food Technology of the Veterinary Degree, apart from different subjects of the Food Science and Technology Degree.

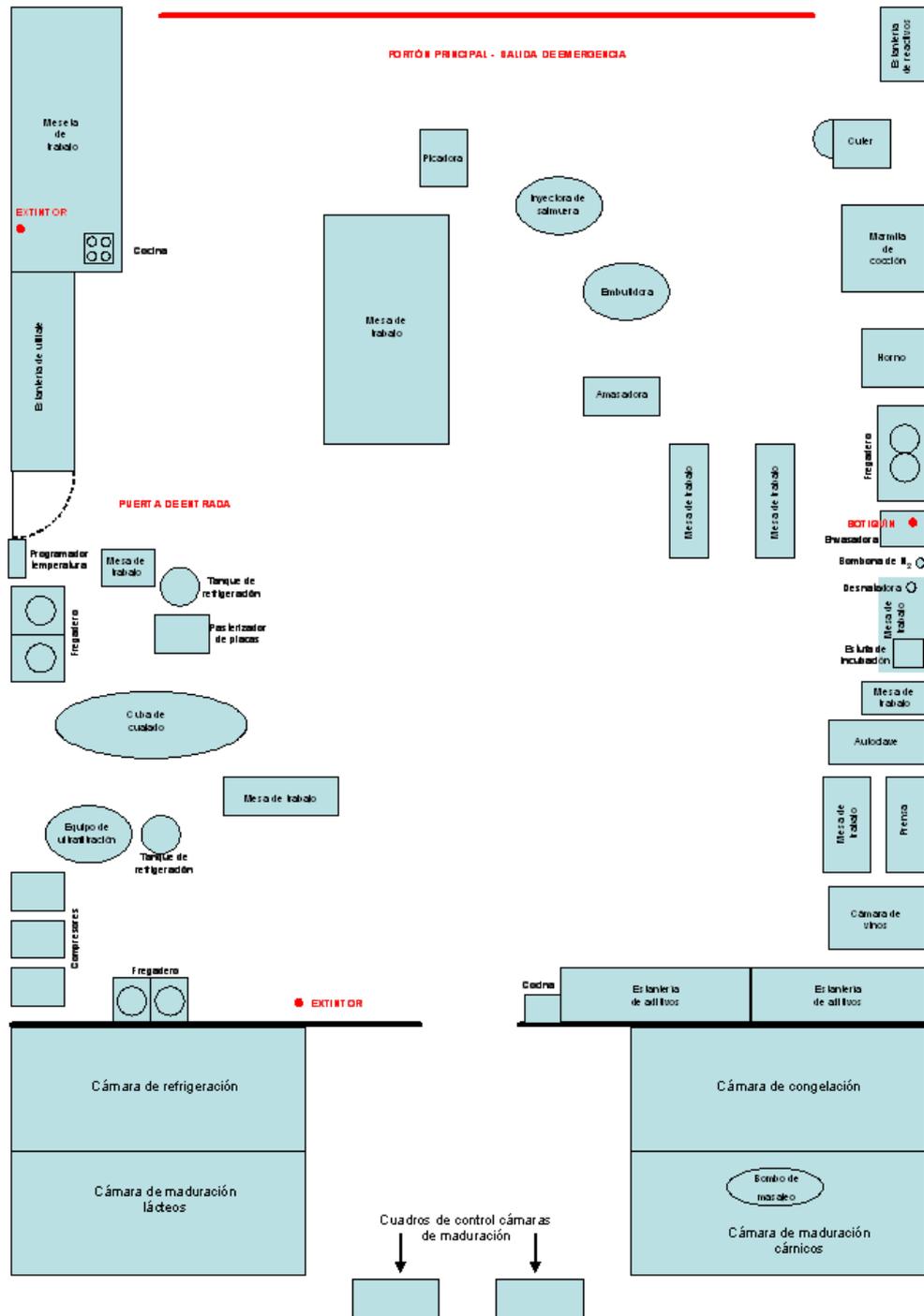
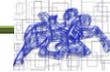
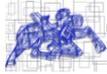


Figure 6.4. Foodstuffs Processing Unit



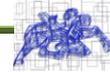
### 6.1.8 WASTE MANAGEMENT

Briefly describe the systems and equipment used for disposing of waste material; cadavers, carcasses, biological waste of different types, excreta, etc.

Corpses, viscera and organic stuff are refrigerated immediately after the necropsy, and kept in a cold storage facility annexed to the necropsy room. There is a collection contract with a corpse destruction and cremation plant, REBISA, which periodically collects the stored stuff. There is a minimum of one weekly collection.

As regards the collection and destruction of fluids, these are collected and temporarily stored in special containers made of high density polyethylene, of 60, 30, 10, 4 and 1 liters of capacity, which are periodically collected by the company CONSENSUR, S.A. to be sterilized and destroyed.

As for the management of chemicals and other biological residues, all laboratories have containers for the disposal of different kind of chemical and biological residues. When these containers are full, they are sent to a waste storage room located between the Faculties of Veterinary and Law. The residues are identified and labeled according to their nature and each 20-30 days they are collected by an external company specialized on the management of residues (BIOTRAN). The waste management is registered (laboratory, quantity, date).



### 6.1.9 FUTURE CHANGES

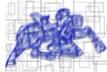
Outline any proposed changes in the premises that will have a substantial effect on the Faculty, and indicate the stage which these have reached

There is a plan for remodelling part of the main building to create small rooms for groups. As soon as there is financing, the remodelling will be performed.

### 6.2. COMMENTS

- ➔ Comment on the adequacy of the buildings in general for undergraduate teaching
- ➔ Comment on the adequacy of the equipment in general for undergraduate teaching
- ➔ Comment on the maintenance of buildings and equipment

In general, the facilities have been adequate for teaching to date. However, the Faculty hosts also the Food Sciences and Technology Degree (four years), and in the 2010 curriculum, lectures are simultaneously given in two groups at each year class. There is already a shortage of teaching spaces for lectures, which will be worsened when both degrees will be fully implemented. Remodelling the large facilities will help to provide more appropriate spaces for the actual number of students both in Veterinary and Food Sciences and Technology Degrees. So far, an effort has been made in elaborating extended timetables to fit all courses, and in finding



some facilities in other Faculties or buildings, but the lack of spaces is already a real problem.

There is a need in remodelling large teaching facilities (designed when the number of students was much higher than now) to fit the actual needs for both degrees taught at the Veterinary Faculty.

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### 6.3. SUGGESTIONS

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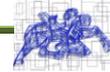
If you are unhappy with any situation, please list any improvements you would make in order of preference

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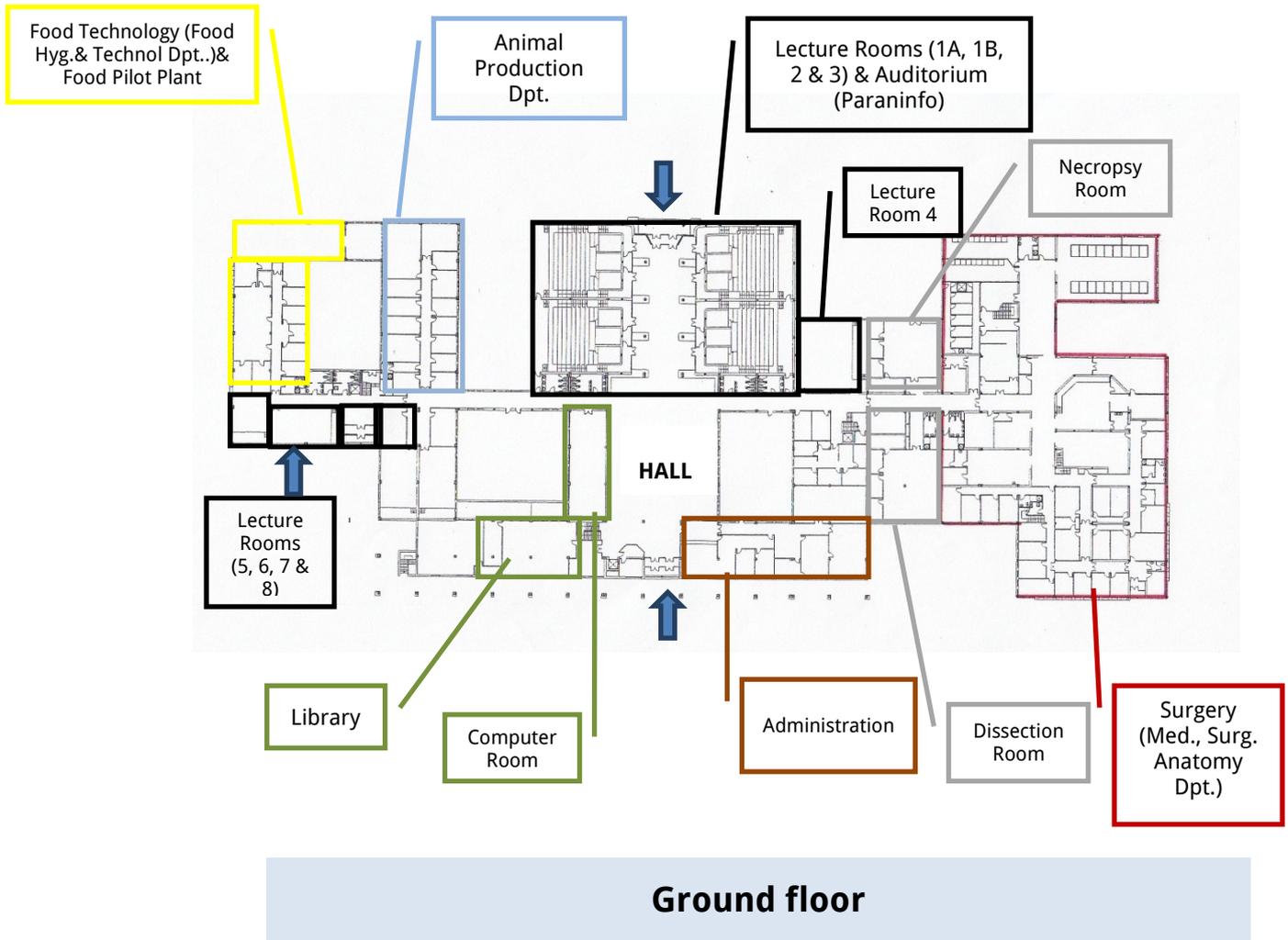
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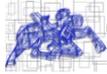
The Faculty will continue asking for financing to carry out the remodelling indicated above, which will allow teaching in small groups, as it is required for a quality improvement in teaching.

The remodelling will affect some departments (like Food Hygiene and Food Technology) which are suffering from lack of space.

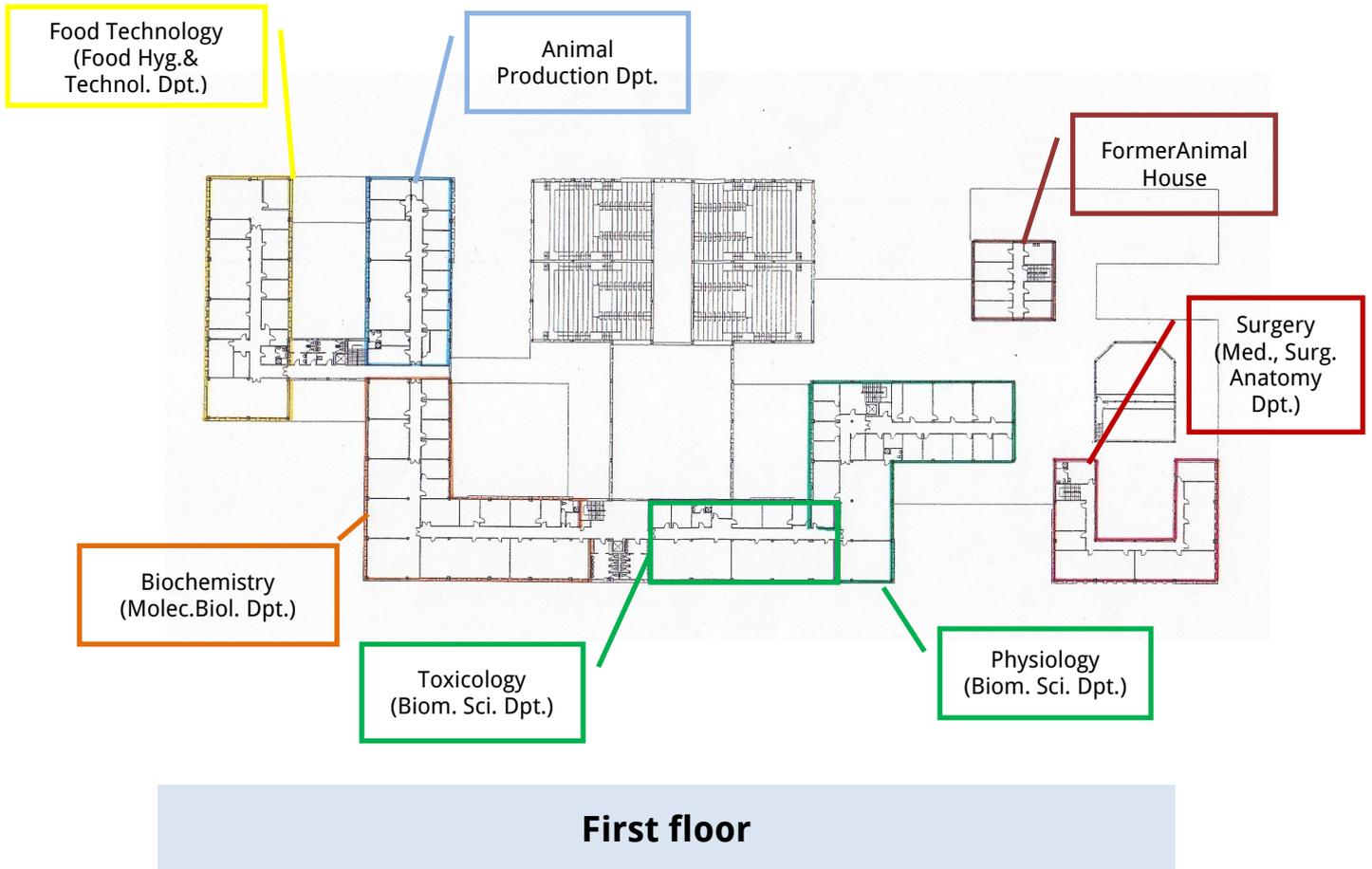


## ANNEX I. PLANS OF THE MAIN BUILDING (I)



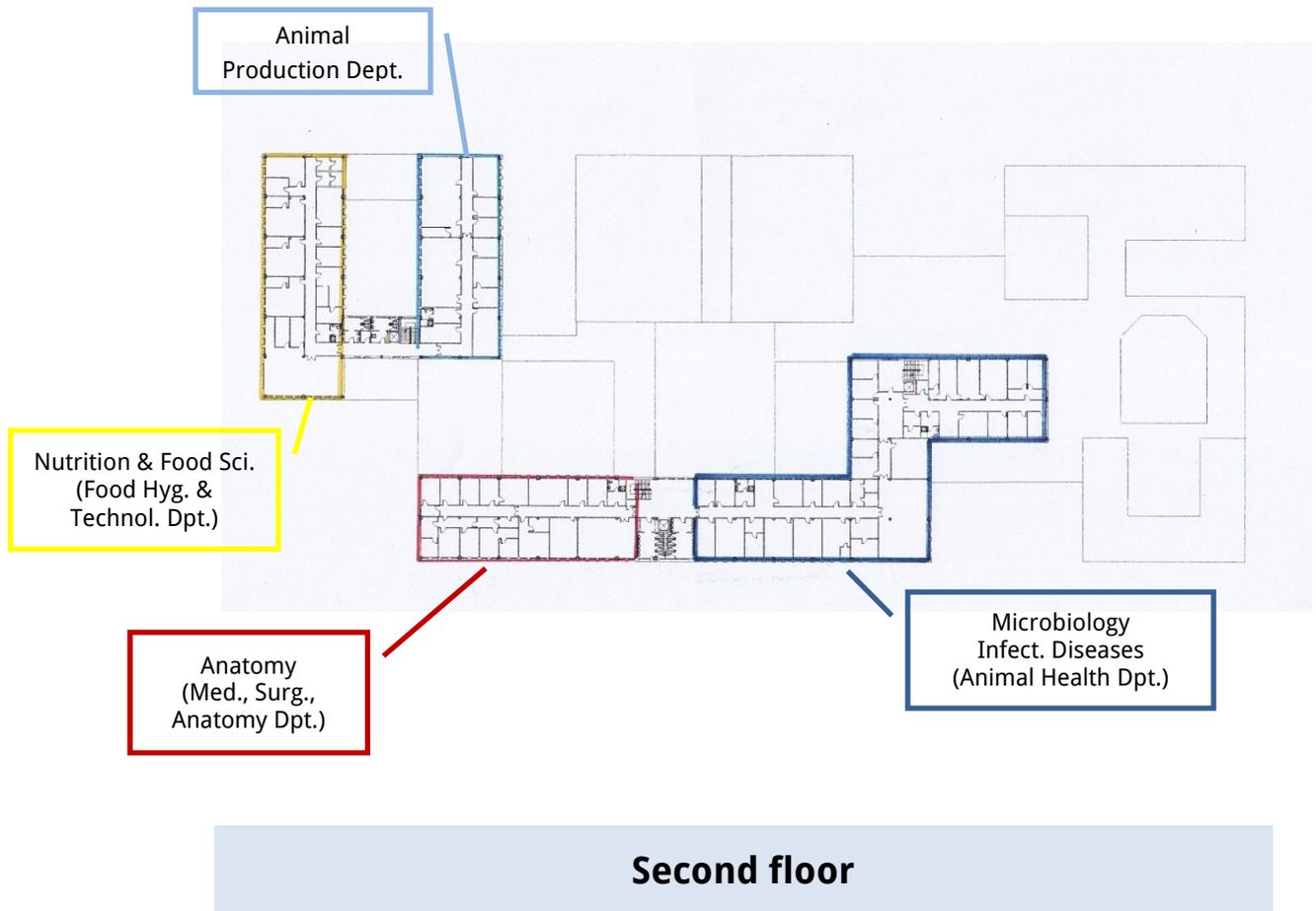


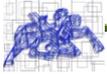
## ANNEX I. PLANS OF THE MAIN BUILDING (II)



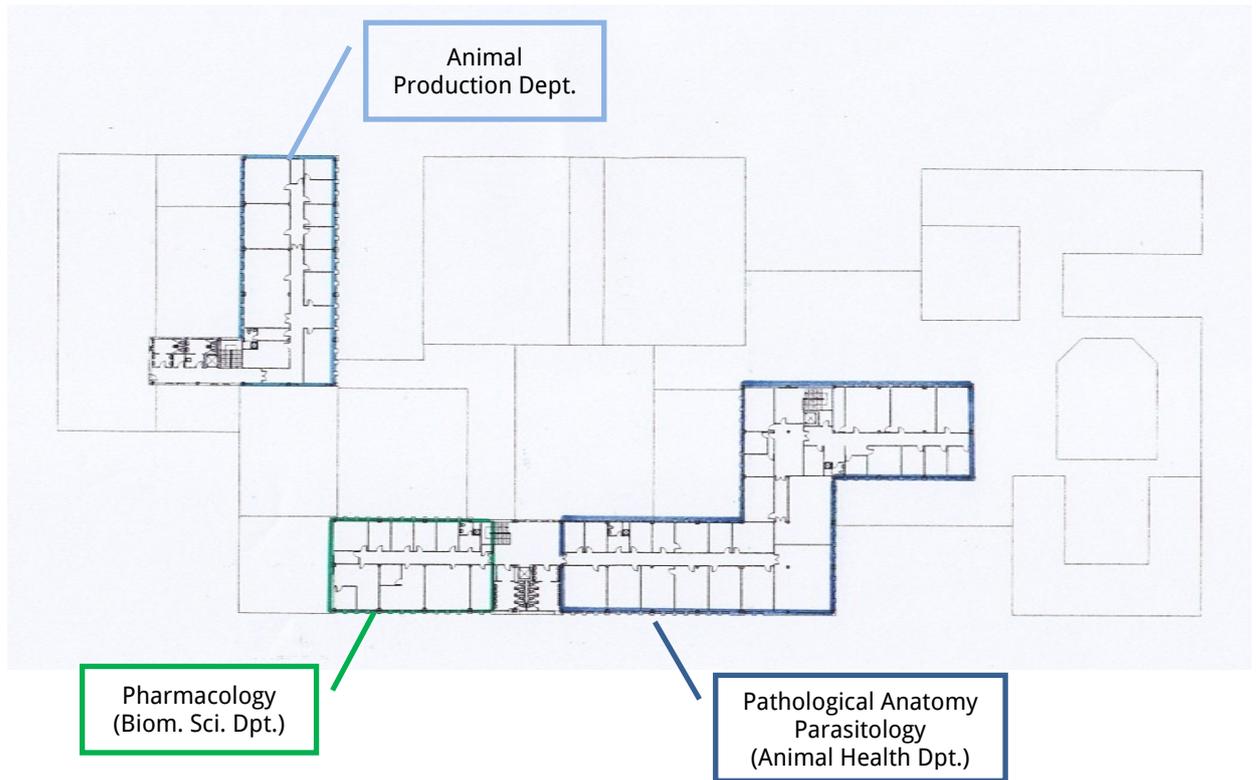


## ANNEX I. PLANS OF THE MAIN BUILDING (III)





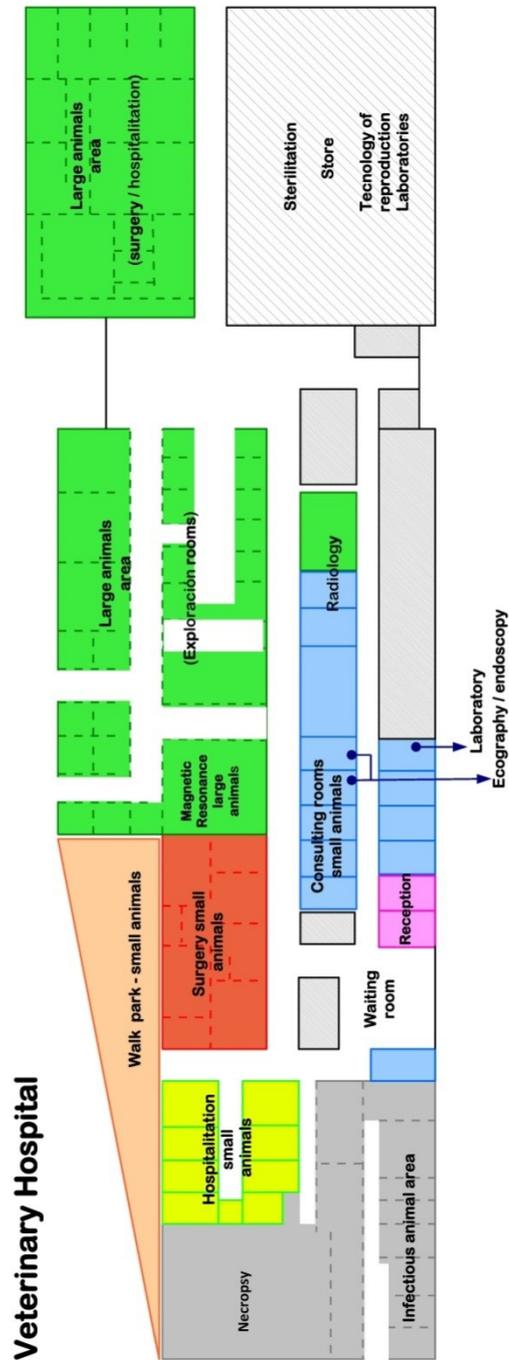
## ANNEX I. PLANS OF THE MAIN BUILDING (IV)



**Third floor**



## ANNEX II. PLAN OF THE VETERINARY HOSPITAL







## CHAPTER 07

# ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

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## CHAPTER 07. ANIMALS AND TEACHING MATERIAL OF ANIMAL ORIGIN

### 7.1. FACTUAL INFORMATION

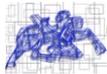
#### 7.1.1. ANATOMY

Indicate the materials that are used in practical anatomical training, and how these are obtained and stored

Live animals are healthy animals coming from de Experimental Farm which are regularly translated to de Faculty for the practical training of various clinical subjects. In Anatomy, they are used to localize visible or palpable points, the localization of clinically relevant structures, the delimitation of anatomical regions and topographic anatomy teaching.

Bones and articular assemblies are obtained by a well know process of maceration in a small room, well ventilated, localized between the dissection room and the exterior. Usually, corpses and anatomical pieces used in dissection are utilized with this purpose. Students have not access to this room which in the last year was also utilized for the formaldehyde fixation of isolated organs and its posterior water washing.

Articular anatomical preparations, limbs and skeletons are mounted with this material. In the first case, dissected articular structures, ligaments and tendons are dehydrated in the correct position to obtain anatomical pieces for teaching. For its preservation, they are finally varnished. Skeletons of all domestic species are available, some of them are historical, others were purchased to commercial companies and others were assembled in the Faculty. Skeletons,



bones and articulations are used in the first practical part devoted to Osteology and Artrology, which include localization in living animals and radiographic studies. Practical training includes localization of anatomical structures in living animals and radiographic studies.

Isolated organs were obtained from the slaughterhouse or from dissected animals. Although for many years these organs were fixed in formalin, later repeatedly washed and finally maintained in an alcoholic solution, in the last years we are trying to progressively substitute this procedure with fresh, refrigerated or frozen specimens. In the last two years, we have not prepared more new formaldehyde fixed organs. These isolated organs are used in the splanchnology practicals.

Cadavers of different domestic animal species, including fetuses (dog, cat, ovine, porcine, poultry, rabbit, wild, exotic and laboratory animals) are used for the practical anatomy training of the students. The dissection room has a problem to receipt and manipulate corpses of complete large animals. Hoists and trolleys for handling carcasses do not exist in the dissection room; for this reason, the anatomy of equines and bovines is studied in pieces obtained mainly from slaughterhouse: limbs, trunks, heads...Corpses and specimens of domestic animals for anatomy practical training are obtained from healthy animals with no suspect of any infectious or parasitic diseases.

Carnivore cadavers come from previously euthanized animals, for humanitarian reasons. Their origin is the Hospital or other private establishments, always with a veterinary check of both, health of the animals and euthanasia process.

Corpses of small ruminants and pigs come from the University Farm, also with veterinary control. Specimens of large animals come from the slaughterhouse, obviously, also with veterinary inspection.

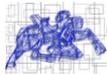
Avian carcasses also are obtained from an avian slaughterhouse.

In the same way as isolated organs, we have considered for this academic year a considerable reduction in formalin preserved carcass. In the present academic year, 2014-15, we have used this



preservation method only in eight dogs and five sheep for student examination review and for the same exam. Formaldehyde corpse fixations are carried out in periods without student activities with all possible forced ventilation. Afterwards, the fixed animals are maintained several weeks with the same isolation measures. Formaldehyde concentration used is always inferior to 3%. The rest of embalming fluid consists mainly in ethanol and glycerin. Formalin already fixed organs are maintained by the same reasons in a preservation fluid without formaldehyde, ethanol-based. The objective is that the main regular practical training occurs in fresh, refrigerated or frozen organs and corpses. When this material is used, it will be removed by the company in charge of the waste management, contracted by the University. Dissection is accomplished during all practical hours available for Anatomy in the timetable; the only exceptions are the first and the last week of each subject and the two weeks devoted to the partial tests. Each student is called to three sessions of two hours during the academic year. This activity includes a professor and five-six students and its objectives are to introduce them in the use of the dissection equipment and technique in the first session. A second session in which each student will be evaluated on dissection skills and a third session, in Anatomy II devoted to more difficult dissections, such as head, pelvic cavity or distal parts of limbs.

The main practical activity, with assistance evaluation, is divided in osteology, dissection on refrigerated or frozen cadavers, splanchnology, head pelvic and distal limb dissections and, finally, several topographic anatomy sessions to study anatomical surface projection of organs and reference structures, to identify visible and palpable structures and anatomical points related to clinical/applied activities, as superficial veins, points of nerve anaesthesia, etc. This ruled practical training was designed to promote students hands-on participation. For this purpose, they are divided in small groups of 5-7 students. In each group and in every session, one student is designed as group coordinator. These conditions require a previous explanation of the practical activity by the Professors to each coordinator, and he or she will transmit the information to the rest of the group, including the direction on the dissection which must be



carried out by all members of the subgroup. This method is a way of stimulating self-driven studies. Obviously, their hand-on works are always supervised; most of the sessions will be assisted by three professors for a mean of 45 students. The ratio will be a professor for 15 students. Medical imaging anatomy samples of normal animals are obtained from the Veterinary Hospital.

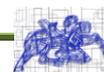
In addition to the institutional Moodle, Anatomy learning has other electronic resource called EVA (Educational Veterinary Anatomy). This web site, developed in 2005 in a more wide utilization context of two Spanish and one Portuguese Veterinary Anatomy Departments has been displaced by the big platforms, but in Leon is still in use to support an online self-test simulation, practical student works, some other E-learning resources, interesting links, correct answers exam exercises and, of course, the teaching material used in class as a base for student learning. Because the scales of the successive evaluations of various subjects are announced in this site, for privacy reasons, they have an access control in their more interesting sections: CONTENIDOS.

<http://proyectoeva.unileon.es/index.htm>

User: *yo*; Password: *vegazana*

Table 7.1. Material used in practical anatomical training (excluding the elective subject Anatomy and Physiology of Wild, Exotic and Laboratory Animals)

	Dog		Ruminant		Equine		Other*	
	Year**	Year**	Year**	Year**	Year**	Year**	Year**	Year**
	2013	2014	2013	2014	2013	2014	2013	2014
<b>Live animals</b>	-	10	-	2	-	2	-	-
<b>Complete cadavers</b>	28	40	2	8	-	-	28	35
<b>Assembled skeletons</b>	4	4	3	3	2	2	6	6
<b>Bones (isolated or groups)***</b>	190	190	325	325	150	150	120	120
<b>Specimens****</b>	80	90	150	165	60	80	80	80
<b>Radiographs*****</b>	160	160	-	-	21	21	30	30



\* Cats, pigs, poultry.

\*\* Academic year 2013-2014, Prevision for academic year 2014-15.

\*\*\*Approximately number.

\*\*\*\* Isolated organs, limbs, trunks, heads. Chilled, fixed or plastinated.

Approximately number.

\*\*\*\*\*Approximately.

## 7.1.2 PATHOLOGY

Indicate the nature and extent of any additional sources of material for the teaching of necropsies and pathological anatomy, including slaughterhouse material

Table 7.2. Number of necropsies over the past 3 years

Species	Number of necropsies			Average
	Year 2014*	Year 2013	Year 2012	
<b>Food-producing animals:</b>				
<b>Cattle</b>	28	101	67	<b>352</b>
<b>Small ruminants</b>	105	246	123	
<b>Pigs</b>	51	179	156	
<b>Equine</b>	1	1	4	<b>2</b>
<b>Poultry</b>	172	141	212	<b>196</b>
<b>Rabbits</b>	4	29	29	
<b>Companion animals/exotic</b>				<b>123</b>
<b>Dogs</b>	42	66	50	
<b>Cats</b>	10	14	19	
<b>Other**</b>	56	67	44	

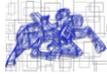
\* 1<sup>th</sup> January-15<sup>th</sup> September 2014

\*\*COMPANION ANIMAL/EXOTIC (OTHER) 2012: bear (1), crow (2), magpie (1), mouse (29), parakeet (1), pheasant (1), roe deer (8).

\*\*COMPANION ANIMAL/EXOTIC (OTHER) 2013: badger (18), bear (1), capercaillie(1), chamois (1), duck (1), ferret (1), hare (2), iguana (1), parakeet (3), partridge (27), roe deer (1), snake (6), tortoise (3), turkey (1).

\*\*COMPANION ANIMAL/EXOTIC (OTHER) 2014: agapornis (2), bear (2), canary (1), guinea pig (1), hare (1), pheasant (1), pigeon (5), rat (38), seagull (1), snake (1), swan (1), tortoise (2).

SLAUGHTERHOUSE MATERIAL: principally lung and liver of cattle, small ruminants, equine and pigs:400 Kg. (2012).760 Kg. (2013), 100 Kg. (2014).



The number of animals listed under the term of necropsies, is referred to those animals in which the whole carcass is submitted for pathological examination. The main source are the clinicians working in the vicinity or the Hospital of the Veterinary Faculty. Groups of students perform the necropsy and gross lesions are showed to the rest of the class. To get a complete pathological diagnosis, samples are taken and examined for histopathology by the members of the staff of the Pathology unit.

Besides those cases, listed in the table, carcasses are also obtained from a Local Incinerator Factory, where animals dead along the León province are collected for destruction. These carcasses are used, from October to December, for the necropsy technique practical lessons. The students perform the necropsy with the aim of learning the technique of post mortem examination of animals. They are mainly ovines, calves, pigs and chickens.

Biopsies, samples are taken from live animals for histopathological diagnosis, but also samples received in the service from clinicians who have performed the necropsy in the field and submit samples from different organs for gross and histopathological examination. Those organs are also shown to the students at the post-mortem room.

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### 7.1.3. ANIMAL PRODUCTION

Indicate the availability of food-producing animals for the practical teaching of students

- a) on the site of the institution
- b) on other sites to which the institution has access

For the practical lessons of animal production, animals from different farm species are visited and examined by the students.



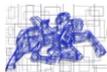
- ▶ At the **farm of the University**: here are facilities for food-producing animals used for teaching.
  - Poultry: 5,500
  - Ovine: 300
  - Bovine: 40
  - Sows:58
  - Growing pigs:370
  - Equine: 5
- ▶ At the "**Estación Agrícola Experimental**", located around 15 km from the faculty, the students visit sheep and cattle.
- ▶ Academic agreements are made with several private farms, located in the vicinity (León, Zamora, Salamanca provinces). The students visit those farms and are transported by bus.
- ▶ Fish fanning installations are available at the Veterinary Faculty.

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#### 7.1.4. FOOD HYGIENE/PUBLIC HEALTH

Indicate the availability of farm animals and products of animal origin for the practical teaching of students in veterinary public health, food hygiene, inspection and technology

In the qualified "non-clinical animal work" on Food Hygiene/Public Health (Table 4.2 of this report) of the subject "Food Technology, "Food Hygiene, Food Inspection and Food Safety", "Practicum on Food Hygiene and Food Technology" (Slaughterhouses and Meat Industries)", students have access to the facilities of the *Matadero de León* (a slaughterhouse, formerly managed by the Local Authority, located near the city of León), where they carry out ante-mortem and



post-mortem inspections accompanied by the official veterinary surgeon and the teachers. In the slaughterhouse bovines, ovines and equines are inspected.

Practical activities of the subjects “Food Technology” and “Practicals Food Hygiene and Technology)” include milk and meat processing in a pilot plant unit. Students have to inspect milk, meat and the rest of ingredients being used to manufacture dairy and meat products in order to determine the suitability (both from a technological and hygienic point of view) for being processed. Final dairy and meat products (fresh cheese, yoghurt, fermented meat sausages, cooked meat products) are also inspected.

Practical activities of the subjects “Food Technology”, “Food Hygiene, Food Inspection and Food Safety”, “Practicum on Food Hygiene and Food Technology” include identification and inspection of fish and shellfish as well as microbiological, physical and chemical analysis of different foodstuffs. In the subject “Practicum on Food Hygiene and Food Technology”, students increase their dedication to ante-mortem and post-mortem inspection at slaughterhouses as well as they can develop food control activities in other food establishments. Also the students visit pig, aviarian and rabbit slaughterhouses.

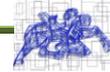
## 7.1.5. CONSULTATIONS AND PATIENT FLOW SERVICES

### 7.1.5.1. CONSULTATION

- ➔ State the number of weeks, in the course of the year, during which the clinics are open
- ➔ State the number of consultation days each week
- ➔ State the consultation hours

### **SMALL ANIMAL**

The Small Animal section of the Veterinary Teaching Hospital is opened all year long (except one week on December and three weeks



in August). Consultations are based mainly on appointment from Monday to Friday.

Patients are attended both in general consultations and on special clinical services preferably from 10:00 am to 2 pm, and the Hospital is opened up to 19:30 h.

The specialized clinical services appointment schedule is accommodated to the practical activity of the Veterinary Faculty.

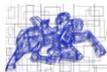
The hospital has a hospitalization service and intensive care 24 hours, and also the patients are attended for 24 hours emergencies (Emergencies Phone no.:630502382).

In addition to regular services the Veterinary Teaching Hospital provides services of spaying and neutering for local shelters. For this, dogs planned be adopted are sent to the Veterinary Teaching Hospital. The animals are examined; blood samples are taken to check for infectious and parasitic diseases and spayed. The internal veterinary and volunteers or regular course students are involved in all the process.

The Large Animal Section of the Veterinary Teaching Hospital opens all year long (except one week on December and three weeks in August). Consultations are based mainly on appointment from Monday to Friday. Patients are attended both in general consultations and on special clinical services from 10 am to 17 pm. The hospital has a hospitalization service and intensive care 24 hours. Also a 24 hours emergency service is offered on call.

The Equine area has had a stallion station, throughout an agreement with the services of equine breeding (cría caballar) of the Spanish Army. From February to June 6-8 stallions were located in the University Farm as breeding stallions. These animals serve as stud stallions for the local breeders and also serve as material for practical work for undergraduate students, residents and PhD students.

The last years this service was not available, but the Hospital provided the reproductive attention to mares in the Hospital, using refrigerated semen.



7.1.5.2. PATIENT FLOW

The number of animals to be stated are for all disciplines combined (medicine, surgery, reproduction, etc.). In Table 7.3 only animals coming into the Faculty should be included. Animals studied in practical teaching outside the Faculty should be entered in the section entitled "Ambulatory Clinic" (Table 7.4)

The term "consultation" refers to those patients which come in and go out during daily consultation hours. "Hospitalization" refers to those patients which are retained in the clinic as "in patients" following presentation

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

Species	Number of cases						Average	
	2011		2012		2013-14*			
	a	b	a	b	a	b		
<b>Food producing</b>	<b>Bovine</b>	2	-	6	-	14	2	<b>15</b>
	<b>Ovine, caprine</b>	-	-	8	3	8	-	
	<b>Porcine</b>	1	-	1	-	-	-	
	<b>Other farm animals</b>	-	-	-	-	-	-	
<b>Poultry</b>	8	0	31	15	-	-	<b>18</b>	
<b>Rabbits</b>	-	-	4	-	-	.	<b>1.3</b>	
<b>Equine</b>	311	219	231	98	188	47	<b>365</b>	
<b>Companion animals/exotics</b>	<b>Canine</b>	806	167	762	124	1391	87	<b>1,310</b>
	<b>Feline</b>	106	14	99	15	214	12	
	<b>Other</b>	-	-	9	-	110	13	

\*from 30 september 2013 to 20 september 2014



### 7.1.6. VEHICLES FOR ANIMAL TRANSPORT

State the number and nature of the Faculty vehicles that can be used to bring sick animals to the clinics

The University has a 4x4 wheel car with a box for transporting large animals and two small boxes for carrying small farm animals (small ruminants, pigs). Pets are usually brought by the owners. No charges are applied for transport.

### 7.1.7. ON-CALL EMERGENCY SERVICE

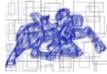
Outline what emergency service is available (full-time, 24 h service, ON-CALL or 8-22 h duty) and discriminate for species.

There is an Emergency Service and so the Veterinary Teaching Hospital is open 24 hours a day. The staff on duty receives the phone call and if necessary the rest of the clinical team is called in.

### 7.1.8. ON FARM TEACHING AND OUTSIDE PATIENT CARE

#### 7.1.8.1. AMBULATORY (MOBILE) CLINIC

The Ambulatory (Mobile) Clinic is defined as a unit which provides on-call outside services to farms and other institutions and is generally operated on a commercial basis



State the number of hours of operation per week. Is emergency service provided 24 h/day, 365 days per year? What is the degree of student participation (include duties)?

State the number, the type and the seating capacity of the vehicles used to transport students working in the ambulatory (mobile) clinic

State the approximate number of sick animals (specify cattle, swine, equine, poultry or small ruminants, others) seen by the ambulatory clinic per year during the past three years (Table 7.4)

State the average number of visits in a year made by the ambulatory clinic to farms and other institutions

Students perform practical work at the Ambulatory Clinic in the 4th and 5th years. This service is carried out by some teachers of the Department of Veterinary Medicine and Surgery and, specially, by professional veterinarians hired for supporting external practices with production animals. These veterinarians work in farm cattle (2), ovine (2), caprine (1) and porcine (1) farms, and in equine field clinic (1), looking after 14,500 cattle, 45,000 sheep and goat, 5,000 pigs and 1,750 horses. Each is accompanied by a student from 08:30 to 17:30 h, and this activity takes place from October to May, started in the academic year 2005-2006. The number of participating students is quite high, with an average of 40 h per student and 900 h of dedication per each veterinarian.

At the end of this activity, students prepare a final report and fill a formulary with their opinion on the professional veterinarian. The evaluation of all veterinarians employed has been very good throughout the years. Also every veterinarian has a book and attendance and assessment of the attitude and work of each student which is delivered at the end of the year and assessed along student's final reports by the external practices Commission of the Faculty. Part of this activities support the practical teaching of Medical and Nutrition Pathology, Infectious Diseases, Parasitic Diseases, Reproduction and Obstetrics and Practicals (Clinical), under the supervision of the coordinating teacher.



The following table provides a breakdown of the species seen at the Mobile Clinic.

Table 7.4. Number of cases seen at the mobile clinic in the past three years

Species	Number of patients			Average
	year 2013	year 2012	year 2011	
<b>Food-producing animals</b> <b>Cattle</b> <b>Small ruminants</b> <b>Pigs</b>	2164	253	100	<b>3,481</b>
	486	1545	1396	
	2477	1469	552	
<b>Poultry (no of flocks)</b>	-	-	-	-
<b>Rabbits (no production units)</b>	-	-	-	-
<b>Equine</b>	46	15	15	<b>25</b>

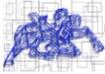
#### 7.1.8.2 OTHER ON FARM SERVICES AND OUTSIDE TEACHING

If there is no on duty Ambulatory (Mobile) clinic, a Faculty may have defined contracts with farms or other institutions to allow for outside teaching and patient care. Similarly, a Faculty may provide herd-health services

Please indicate if and to what extent this applies to your Faculty. If applicable please provide no. of patients seen on outside teaching

Table 7.5. Number of cases seen outside in the past three years

Species	Number of patients			Average
	year 2013	year 2012	year 2011	
<b>Food-producing animals</b> <b>Cattle (milk)</b> <b>Cattle (meat)</b> <b>Sheep</b> <b>Pigs</b>	850	650	658	<b>10256</b>
	240	80	3680	
	1100	1000	1600	
	150	122	126	
<b>Roe deer</b>	200	250	230	<b>227</b>
<b>Poultry (No of flocks)</b>	4	4	4	<b>4</b>
<b>Rabbits (No production units)</b>	2	2	2	<b>2</b>



## 7.2. OTHER INFORMATION

Indicate any notable additional outside sources of material for clinical training purposes, such as animal charities, animals awaiting slaughter, etc. Indicate how the level of clinical service that is offered by the Faculty (in small companion animals, equines and production animals) compares with outside practices in terms of facilities, hours of service, equipment, expertise, responsiveness, etc.

The Veterinary Teaching Hospital has agreements with regional Animal Charity Associations. Within this frame animals abandoned are sent to the Veterinary Teaching Hospital for care and neutering before being adopted.

Students are involved in these activities, which provide them with additional surgery; anesthesiology and general veterinary care training.

Provide an indication in percentage terms of the proportion of cases that are primary (i.e. first opinion), and referrals (provide a breakdown by species, if helpful). If the Faculty has a particular aim or policy as regards this mix, describe it

Most cases received in the Hospital are primary (75-80%), excluding cases of horses in 2012 (over 50% referred), and 2013-14 (over 35% referred).

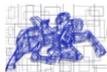


Indicate what areas of clinical specialization are covered, and the extent of the coverage (for example, a veterinarian with a particular specialization may see patients in the clinic for one day a week, 3 afternoons, etc.)

#### See 7.1.5.1 (Consultation)

Indicate the relationship the Faculty has with outside practitioners (in small companion animals, equines and production animals) in terms of matters such as referral work, providing diagnostic or advisory services for private practitioners, practitioners participating in teaching, holiday or 'seeing practice' work for students, feedback on the level of clinical training. Describe (if applicable) any other relationships with outside organisations that are routinely used to provide students with training (in particular practical training) in other clinical subjects (e.g. pathology work, interaction with state veterinary work)

For obligatory extramural fieldwork, "Placements" (4.5 ECTS), students are given placements at a number of centres and companies with whom the university has signed undergraduate internship agreements; centres may be public or private (e.g. clinics, slaughterhouses). See further information in chapter 5.1.



Provide an outline of the administrative system(s) used for the patients, e.g. in terms of how case records are kept, how data are retrieved, whether systems are centralized, etc.

All patient related administrative tasks are dealt with in the Reception area for payments appointments and records maintenance. The first time that a patient comes to the Veterinary Teaching Hospital, is registered on a computer database. Data records include owner's data (name, address ID, telephone) and the patients file (species, breed, age, sex). Each patient is registered with a unique code. This code allows the identification of the client's record in the archive.

The reception area is, makes appointments for the different consultations, and preparing the patient records for the appointments of each day.

### 7.3. RATIOS

See the section 'Main Indicators' in Annex Ia for the figures needed for calculating ratios. Give the figures for numerators and denominators. The ratios should then be expressed by taking the numerator as 1

#### **R11: Ratio: production animals /students**

$$\text{R11: } \frac{\text{Number of food-producing animals seen at Faculty}}{\text{Number of students graduated in the last year}} = \frac{15}{104} = \mathbf{0.14}$$

**R12: Ratio: production animals outside /students**

$$\text{R12: } \frac{\begin{array}{c} \text{Nor of individual food-} \\ \text{producing animals} \\ \text{seen outside Faculty} \end{array} \quad 3481}{\begin{array}{c} \text{Number of students} \\ \text{graduated in the last} \\ \text{year} \end{array}} = \frac{3481}{104} = \mathbf{33.47}$$

**R13: Ratio: herd health / students**

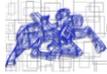
$$\text{R13: } \frac{\begin{array}{c} \text{Number of herd} \\ \text{health} \end{array} \quad 35}{\begin{array}{c} \text{Number of students} \\ \text{graduated in the last} \\ \text{year} \end{array}} = \frac{35}{104} = \mathbf{0.34}$$

**R14: Ratio equines / students**

$$\text{R14: } \frac{\begin{array}{c} \text{Number of equines} \end{array} \quad 365}{\begin{array}{c} \text{Number of students} \\ \text{graduated in the last} \\ \text{year} \end{array}} = \frac{365}{104} = \mathbf{3.51}$$

**R15: Ratio poultry/rabbits/ students**

$$\text{R15: } \frac{\begin{array}{c} \text{Number of} \\ \text{poultry/rabbit cases} \end{array} \quad 9.67}{\begin{array}{c} \text{Number of students} \\ \text{graduated in the last} \\ \text{year} \end{array}} = \frac{9.67}{104} = \mathbf{0.09}$$

**R16: Ratio companion animals/ students**

$$\text{R16: } \frac{\text{Number of companion animals}}{\text{Number of students graduated in the last year}} = \frac{1310}{104} = \mathbf{12.59}$$

**R17: Ratio poultry (flocks)/rabbits (production units)/ students**

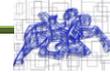
$$\text{R17: } \frac{\text{Poultry (flocks)/rabbits (production units)seen}}{\text{Number of students graduated in the last year}} = \frac{6}{104} = \mathbf{0.06}$$

**R18: Number of Necropsies food producing animals+equines/ students**

$$\text{R18: } \frac{\text{no. necropsies food producing animals + equines}}{\text{Number of students graduated in the last year}} = \frac{354}{104} = \mathbf{3.40}$$

**R19: Number of Necropsies poultry/rabbits/ students**

$$\text{R19: } \frac{\text{Necropsies of poultry/rabbit}}{\text{Number of students graduated in the last year}} = \frac{196}{104} = \mathbf{1.88}$$



## R20: Number of Necropsies companion animals/students

$$\text{R20: } \frac{\text{Necropsies of companion animals}}{\text{Number of students graduated in the last year}} = \frac{123}{104} = 1.18$$

### 7.4. COMMENTS

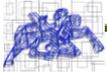
Feel free to comment on all data provided in this Chapter

Comment on major developments in the clinical services, now and in the near future

Comment on local conditions or circumstances that might influence the ratios in tables 7.5 and 7.6

The EAEVE report, issued after the visit to the Faculty of Veterinary Sciences in 2001, served as the basis for a series of measures aimed at addressing the deficiencies noted. Extramural practical work has been more thoroughly organized; activities are now planned by one academic tutor and one work-placement tutor; the skills acquired now have a direct impact on the student's overall marks.

The environment of the Faculty is mainly rural and there are a great number of stockbreeding farms, which should result in a high number of farm. However, there are many private veterinary teams in the region that carry out the clinic care of those farms, and it is only exceptionally that cases are sent to the faculty hospital. As regards small animals, the population in the city of León and its surrounding area is not large enough to supply the hospital with small animals in the levels suggested as satisfactory. We must also



take into account that private veterinary clinics are abundant in the city.

#### 7.4. SUGGESTIONS

If the denominators in tables 7.5 and 7.6 for your Faculty are not meeting the range as indicated in Annex I, Supplement A, what can be done to improve these ratios?

The caseload in the small animal hospital should be increased. For this propose the extending of the emergency service, and the support of animal charity shelters are steps to be taken as soon as possible. However, financial support for recruiting new veterinarians is a crucial necessity.

Finally, is very important that the Veterinary Hospital be considered a support for local and regional practitioners.



## **CHAPTER 08**

# **LIBRARY AND LEARNING RESOURCES**

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## CHAPTER 08. LIBRARY AND LEARNING RESOURCES

### 8.1. FACTUAL INFORMATION

#### 8.1.1. LIBRARY AND OTHER INFORMATION TECHNOLOGY SERVICES

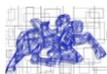
Give a general description of the library/libraries of the Faculty/university that are available to students. Indicate how the library/libraries are managed (e.g. library committee).

The Rule of the Central University Library describes it as a decentralised structure organised in "Theme Area Libraries" to service Faculties and Schools. The "Library of Nature and Health Sciences" has different sections (among them the one based in the Faculty of Veterinary) for the storing and consultation of books, magazines and other printed material.

The General Committee of Libraries is the highest collegiate organ of the University Library, and the different centres are represented in it by their deans or directors. The different centres have their own Library Committee, which is in charge of managing the purchase of books and other printed material and the subscriptions to magazines, and offer easy access for consultation by teachers and students.

#### 8.1.1.2. CENTRAL UNIVERSITY LIBRARY

The Central University Library San Isidoro (<http://biblioteca.unileon.es/>) is located near the building of the Veterinary Faculty (100 m far) and offers the following services to the university community: reading room, lending, looking up of



computer catalogues, centre of documentation and inter-library lending, training for users, media library, photocopies and newspaper archive. There are rooms equipped as conference rooms, boardrooms, individual offices and seminars.

The bibliographic collection of the Central Library is formed by:

- ▶ 502,000 monographs
- ▶ 13,374 audiovisual documents
- ▶ 10,994 journals (in paper)
- ▶ 10,288 electronic books
- ▶ 20,228 electronic journals
- ▶ 45 database
- ▶ 1,040 electronic documents produced by the University Community

The bibliographic collection of the Library is formed by more than 500,000 volumes, 10,000 magazines and special materials like: plans and maps, records, CD-ROM's, microfilms, etc., located in different sections of the University: Central Library, Centre Libraries, Departments, offices, etc.

The Central Library is opened from Monday to Friday from 8:30 am to 08:00pm. On holidays (Christmas, Holy Week and 15 days in August) is closed. During exams periods the Central Library opens 24 hours a day.

The number of seats in the Central Library is 725.

#### 8.1.1.3. MAJOR LIBRARY OF THE VETERINARY FACULTY

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The Library of the Veterinary Faculty is in the main building of the Faculty and has a total usable area of 728m<sup>2</sup> (since the last visit of the EAEVE Committee, it has been extended in 390 m<sup>2</sup>). The library consist of two rooms that can be used by students for reading and consultation (with a total of 174 reading seats), in two floors, and newspaper archive. The library also has an area of 70 m<sup>2</sup> for book storage, located in the basement, with capacity for 5,000 books.



Access to the library is restricted to members of the University Community. However, external users are allowed to use the facilities applying for an ID Card. Students, teachers, scholarship holders and external researchers use the library. 95% of the users are students of the Faculty. The students of the Faculty also have access to other libraries of the University, to the photo documentation service of the Library, to the computer catalogue of the Library and of the rest of libraries of the University through the Librarian or through a terminal.

The Library of the Veterinary Faculty has the following means for consultation and reproduction: 4 computers and 11 portable computers for lending. There is no photocopy machine in the Library.

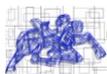
The area to consult the data base is located in the newspaper archive. The general catalogue of the University and the data bases can be consulted through the computers installed there and from any computer with internet access.

The total budget for purchase of books and magazines in the Veterinary Faculty during the 2013-14 year was 16,799 € (3,836 € for books and 12,963 € for periodical publications). An average of 170 books are purchased every year.

The staff of the Library of the Veterinary Faculty is: 1 assistant of libraries, 1 technician of libraries, 1 official of libraries, 1 subaltern. All of them are full-time (35 weekly hours each), partially covering mornings and evenings.

The library is open 13 hours a day (from 8:00 am to 08:00pm) on week days during the teaching period, and five and a half daily hours (from 08:30 am to 07:30 pm) in July. The Library doesn't open at weekends. On holidays (Christmas, Holy Week and 15 days in August) it is closed. During exams periods the Central Library opens 24 hours a day.

The Library is located in the ground floor of the Faculty, having Access from the hall. Some important data are:



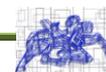
<b>Surface</b>	728 m <sup>2</sup> 1,672 m. of linear shelves
<b>Facilities</b>	2 reading rooms 1 journal library 1 room with free access to books 1 Store for journals 1 Store for old books (before 1.900) 1 Office room
<b>Reading seats</b>	Total: 204 Distribution:108 ground floor+ 96 first floor
<b>Equipment</b>	4 computers for consulting 11 notebooks for lending
<b>Collection</b>	6,127 books free access 13,000 books on deposit 2,430 old books (before 1900) 6,500 PhD thesis 2,000 journals 8 online journals

### Subsidiary Libraries

The six departments located at the Veterinary Faculty have their own Library, with the following characteristics:

1. Food Hygiene and Food Technology: 1 library in the first floor, 16 m<sup>2</sup>, 15 seats; 1 library in the second floor, 35 m<sup>2</sup>, 15 seats.
2. Medicine, Surgery and Veterinary Anatomy: 1 library in the second floor of the Veterinary Hospital, 9 m<sup>2</sup>, 16 seats.
3. Animal Production: 1 library in the first floor, 74.10 m<sup>2</sup>, 40 seats; 1 library in the first floor, 42.15 m<sup>2</sup>, 12 seats.
4. Animal Health:1 library, second floor, 20 m<sup>2</sup>, 14 seats.
5. Molecular Biology: 1 library in the first floor, 6 seats.
6. Biomedical Sciences: 1 library in Physiology (15 seats), 1 small library in Pharmacology (6 seats) and 1 small library in Toxicology (6 seats).

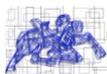
The collection hold at these libraries is:



Department (Area)	Books	Journals
Biomedical Sci. (Pharmacology)	500	17
Biomedical Sci. (Physiology)	242	33
Biomedical sci. (Preventive medicine and Public health)	19	
Biomedical Sci. (Toxicology)	144	1
Food hygiene and Food technology (Human Nutrition and Food science)	1,660	85
Food hygiene and Food technology (Food Technology)	724	72
Medicine, Surgery and veterinary Anatomy (Anatomy)	609	24
Medicine, Surgery and veterinary Anatomy (Med & Surgery)	195	52
Animal Production	7,611	466
Animal Health	1,368	
Animal Health (Pathological anatomy)	449	34
Animal Health (Infectious diseases)	144	41
Animal Health (Immunology)	2	
Animal Health (Microbiology)	131	13
Animal Health (Parasitology)	682	123
<b>Total</b>	<b>14,480</b>	<b>961</b>

The Departments are in charge of keeping and maintaining those collections using funds from credits for academic and/or research activity. Students use to have access to the books, asking for permission to the teaching staff, but lending is not allowed.

Any member of the University Community can search any of the items of the bibliographic collection of the University through the web([http://catoute.unileon.es/search\\*spl/w](http://catoute.unileon.es/search*spl/w)).



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## 8.2. INFORMATION TECHNOLOGY SERVICES

**COMPUTER ROOM:** There is a computer room in the ground floor of the Faculty, with 20 computers with Wi-Fi access and 1 printer. This is for use by the Veterinary students. It is also used for teaching. Access is free for students of the University Community. The students can use the printer only when the scholarship holder assigned to it is present.

The opening hours are from 7:30 am to 08:00 pm., from Monday to Friday.

**OTHER COMPUTERS:** Finally, the Library of the Veterinary Faculty has two computers for consulting the data bases. This service is dealt with together with the books depot and by the same staff of the Library. The opening hours are the same as those for the rest of the Library. The library staff deal personally with every user in the use of data bases and terminals. There is also the possibility of a restricted borrowing of video tapes.

Other Technological Information Services are in the Central Library (terminals, video and media library, documentation center).

The computer data bases that can be consulted by teachers and students are mainly of Veterinary Medicine (Current contents), Animal Production (CAB Abstracts) and Food Science and Technology (FSTA). These data bases can be consulted in any of the terminals available in the Library or in the Computer room, via the university intranet consultation service. There are also other widely used databases (Medline, PSYCinfo, JCR, etc.).

The automated catalogue of the Library makes it possible to look up and spot the materials. It works through a Telnet link.

From some years ago, there is free Wi-Fi access for the University Community in all the Campus.



## 8.2. COMMENTS

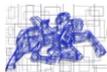
Please comment on the adequacy of the books and accessible journals, of the opening hours and of the provision of reading spaces and support personnel

### **Library**

Since the extension of the Library of the Veterinary Faculty carried out in 2004, the number of seats, as well as the books and journals available for the Veterinary students is considered appropriate. The offer of electronic data bases is also adequate.

The Library is used by the students mainly as a study room. They can also use the premises of the Main University Library. The students hardly ever use the rooms for audio-visual means located in the main building. Some deficiencies can be solved thanks to the services rendered by the Central Library. However, since the Central Library is shared with students from the rest of the University, there are instances when the different services are overwhelmed.

An important improvement since 2001 (date of the last visit of the EAEVE Committee) has been the implementation of a centralized system of the University for acquisition of books and other bibliographic material. The purchase of the volumes by the different libraries (of centres and departments) is managed by the Main Library. There is an application to order books in use by the teaching staff (these books will be located in the Department Libraries). A specific Commission of the Veterinary Faculty (Library Commission) decides each year the volumes/journals to be ordered for the Faculty Library after consultation to the teaching staff, and the Main Library is in charge of the purchase and cataloguing. This centralised management of the bibliographic funds has made their location easier. The central cataloguing of these volumes allows, in principle, their location. However, in practice, many books hold at the



Departments are of difficult access for students (they are mostly used by the teaching staff).

It is considered that the Veterinary Faculty has an adequate fund for the needs of teachers and students. Around 5% of the funds of the Faculty are used for the Library.

## IT facilities

Please comment on the establishment's approach to self-learning, on the adequacy of the provisions, and on any limitations on the further developments in this area

Since the remodelling of the Faculty carried out in 2004, there is a new computer room in the Faculty to be used by the students. The number of computers available (20 plus 11 notebooks) is considered sufficient. Many students have their own notebooks/tablets and the free Wi-Fi access is an important improvement to their use.

The opening hours are adapted to the hours in which students attend the faculty, so that they can use the different services offered by the Library.

### 8.3. SUGGESTIONS

The number of multimedia material should be increased.

At least one person is needed for the computer room (opening and closing, taking care of the computers, etc.).

Group study rooms and individual study rooms in the Library would be advisable.



## CHAPTER 09

# ADMISSION AND ENROLMENT

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## CHAPTER 09. ADMISSION AND ENROLMENT

### 9.1. UNDERGRADUATE COURSES

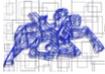
#### 9.1.1. UNDERGRADUATE STUDENT NUMBERS

Table 9.1. Undergraduate student composition (academic year 2012-2013)

Total number of undergraduate students	611
Total number of male students	197
Total number of female students	414
Foreign students	12
From EU countries	10
From non EU countries	2

Minimum number of years (MNY) allowed to successfully pass the curriculum

The minimum number of years to successfully pass the curriculum is five. The maximum is exactly double the number of years of the course, i.e. ten. Some exceptions may be made regarding the maximum number of years, provided that written justification is submitted.



### 9.1.2. STUDENT ADMISSION

State the minimum admission requirements

- ➔ Indicate whether there is a limit to the number of students admitted each year
- ➔ Describe how the number of government-funded student places is determined
- ➔ Outline any selection process (or criteria) used in addition to the minimum admission requirements
- ➔ Describe whether students applying for and/or starting veterinary training have an equal or very variable knowledge base in scientific disciplines from their previous studies
- ➔ Describe any circumstances under which extra students may be admitted to the undergraduate veterinary course
- ➔ Outline any changes foreseen in the number of students admitted annually. If applicable, describe how the Faculty plans to adjust to these changes

To access University studies the student, having completed the Baccaureate, must pass the University Access Test (PAU, *Prueba de Acceso a la Universidad*). There is no additional test to enter to the Veterinary Faculty.

Access to the Degree course in Veterinary Sciences at the University of León is regulated by a *numerus clausus* system: every academic year, the University fixes a maximum number of students to be admitted (e.g. 120 students for 2013/2014). Candidates are required to achieve a minimum university entrance mark, made up of the average mark in the Baccaureate (accounting for 60%) and the mark in the University Access Test (40%). The minimum mark required by the Veterinary Faculty for the academic year 2014/15 was 10,010 (on a scale of 0-14), the maximum number of students



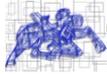
admitted may be increased by 5% in any year due to exceptional circumstances. As there are usually more applicants than places available on the Veterinary Medicine degree course, the admission of first-year undergraduates tends to be very competitive.

Applications from students who have passed the University Entrance Examination with the required mark in June are processed first; then, applications are taken from candidates who passed the University Entrance examination in September, although this rarely happens, since available places are generally filled in June.

A percentage of places are reserved for students in special circumstances:

- ▶ Students over 25: 3% of places are reserved for this group. These students are required to take a special University Entrance examination, but do not have to study the Baccalaureate.
- ▶ Students over 45: 2% of places are reserved for this group. These students are required to take a special University Entrance examination.
- ▶ Students with disabilities: 5% of places are reserved for this group. They must present an official certificate demonstrating a disability rating of 33% or more.
- ▶ High performance athletes: 3% of places are reserved for this group. They are required to submit a certificate justifying their status, issued by the National Sports Institute (*Consejo Superior de Deportes*).
- ▶ Graduates from other degree programmes: 2% of places must be reserved for this group.
- ▶ Foreign students (non-EU): 1% of places are reserved for students from outside the EU.

Veterinary Medicine undergraduates from other Spanish or foreign faculties may request a transfer to this Faculty. The application is submitted to the Dean of the Faculty, who is authorized by the



Chancellor to accept or reject it, bearing in mind the availability of places and the applicant's average marks to date. Every year, an average of 8-10 students are accepted from other Faculties.

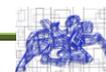
Foreign students are also accepted through the ERASMUS INTERNATIONAL EXCHANGE PROGRAMME and the AMICUS PROGRAMME. The Veterinary Faculty of León has signed Erasmus agreements with 14 faculties in eight countries:

Table 9.2: International exchange students (Erasmus)

Universidade de Lisboa	Lisboa (PORTUGAL)
Universidade de Evora	Evora (PORTUGAL)
Universidade de Tras-Os-Montes E Alto Douro	Vilareal (PORTUGAL)
Universite de Liege	Liege (BELGIUM)
Ecole Nationale Veterinaire de Toulouse *	Toulouse (FRANCE)
Universita degli Studi di Bologna	Bologna (ITALY)
Universita degli Studi di Padova	Padova (ITALY)
Universita di Pisa	Pisa (ITALY)
Universita degli Studi di Milano	Milano (ITALY)
Universita di Torino	Torino (ITALY)
Wroclaw University of Environmental and Life Sciences	Wroclaw (POLAND)
University of Kosice	Kosice (SLOVAKIA)
University of Copenhagen - Faculty of Life Sciences	Copenhagen (DENMARK)
University of Veterinary Medicine	Vienna (AUSTRIA)

\*Bilateral Agreement closed in 2014.

No. of students	2013-2014		2012-2013		2011-2012		2010-2011	
	Incoming	Outcoming	Incoming	Outcoming	Incoming	Outcoming	Incoming	Outcoming
<b>Univ T. Lisboa</b>	0	4	0	2	0	0	0	4
<b>Univ. Evora</b>	0	2	0	1	0	2	0	2
<b>UTAD</b>	0	2	0	0	0	2	0	2
<b>Univ. Liege</b>	0	0	0	0	0	2	1	2
<b>Ec. Toulouse</b>	0	0	0	0	0	2	0	1
<b>Univ. Bologna</b>	0	2	0	2	0	2	0	2
<b>Univ. Padova</b>	1	2	0	2	0	2	2	2
<b>Univ. Pisa</b>	1	2	1	3	0	3	1	3
<b>Univ. Milano</b>	4	4	4	4	4	4	4	4
<b>Univ. Torino</b>	0	2	9	2	0	2	1	2
<b>Univ. Teramo</b>	4	0	5	0	6	0	5	3
<b>Wroclaw Univ</b>	1	5	0	4	0	5	2	3
<b>Univ. Kosice</b>	1	2	0	3	2	3	3	3
<b>U. Copenhagen</b>	0	0	0	0	0	0	0	2
<b>Univ. Vienna</b>	0	0	0	1	0	1	0	0



With respect to the Amicus International Exchange Programme, (a program of the ULE for the interchange of students out of Europe) the Veterinary Faculty of León offers as destinations:

Table 9.3: International exchange students (Amicus)

Universidad Autónoma del Estado de Méjico	Toluca (Méjico)
Universidad de La Salle Bajío	Guanajato (Méjico)
Universidad Veracruzana	Veracruz (Méjico)
Universidad de Colima	Colima (Méjico)
Universidad de Viña del Mar	Viña del Mar (Chile)
Universidad Mayor de Chile	Santiago (Chile)
Universidad Luterana de Brasil	Portoalegre (Brasil)
Universidad de Passo Fundo	Rio Grande do Sul (Brasil)
Universidad del Estado de Santa Catarina	Florianópolis (Brasil)
Univ. Federal de Vicosa	Vicosa (Brasil)
Universidad de Ciencias Aplicadas y Ambientales	Bogotá (Colombia)

No. of students	2012-2013		2011-2012		2010-2011		2009-2010	
	Incoming	Outcoming	Incoming	Outcoming	Incoming	Outcoming	Incoming	Outcoming
<b>Univ A. Est Mejico</b>	0	0	0	0	0	0	0	0
<b>Univ. La Salle Bajo</b>	0	2	0	0	1	4	1	1
<b>Univ Veracruzana</b>	0	3	0	0	0	1	0	0
<b>Univ. Colima</b>	0	0	0	0	0	0	0	1
<b>Univ. Viña del Mar</b>	0	1	0	0	0	0	0	0
<b>Univ.May. de Chile</b>	0	0	0	1	0	1	0	1
<b>Univ. Lut. Brasil</b>	0	2	0	2	0	2	0	0
<b>Univ. Passo Fundo</b>	0	2	1	2	0	1	0	0
<b>Univ. Sta. Catarina</b>	0	0	0	2	2	0	0	0
<b>Univ Federal Vicosa</b>	0	1	0	1	0	0	0	1
<b>Univ. CC Ap. Amb.</b>	0	1	0	0	0	1	0	0

Moreover, the Faculty has signed academic national exchange agreements known as SICUE/SENECA, with nine Spanish veterinary faculties (9 outgoing students in year 2013/14).

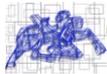


Table 9.4. Agreements with Spanish Veterinary Faculties

Universidad Autónoma de Barcelona
Universidad Complutense de Madrid
Universidad de Córdoba
Universidad de Extremadura
Universidad de Las Palmas de Gran Canaria
Universidad de Murcia
Universidad de Santiago de Compostela
Universidad de Zaragoza
Universidad Cardenal Herrera-CEU (Valencia)

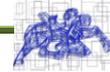
Table 9.5. Intake of veterinary students in the past five years

Year	Number applying for admission	Number admitted	
		Standard intake	Other entry modes*
2014-2015	2011	122	6
2013-2014	1970	123	7
2012-2013	1924	131	8
2011-2012	1748	127	11
2010-2011	1617	119	15

\* Students from other Veterinary Faculties, entering the León Faculty via Academic Transfer

Table 9.6. Average duration of studies (distribution of students in years)

Duration of attendance	Number
5 years	30
6 years	27
7 years	20
8 years	14
9 years	10
10 years	9
Average duration of studies of the students who graduated in year 2012/13	6,34



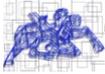
### 9.1.3. STUDENT FLOW

Table 9.7. Student flow and total number of undergraduate veterinary students

	Number of students present after admitted year (2007/08)	Number of additionally admitted students
<b>1st year</b>	0	(2008-2009): 131
<b>2nd year</b>	0	(2009-2010): 127
<b>3rd year</b>	0	(2010-2011): 134
<b>4th year</b>	23	(2011-2012): 138
<b>5th year</b>	38	(2012-2013): 135
<b>Graduate student</b>	28	
<b>Transfer to other Universities</b>	19	
<b>Dropped students</b>	12	
<b>Number undergraduate students</b>	611	

Table 9.8. Number of students graduating annually over the past five years

Year	Number graduating
2012-2013	104
2011-2012	109
2010-2011	123
2009-2010	110
2008-2009	102
<b>Average</b>	<b>110</b>



Describe the requirements (in terms of completing subjects and examinations) for progression to a subsequent year of the course

Describe the academic circumstances under which the Faculty would oblige students to leave the course

First year students who have not passed 12 credits in the two ordinary sittings available in that academic year, will not be able to continue their studies.

In addition, students who have unsuccessfully used up all the possible retakes for one subject (maximum of six) will have to leave our Faculty.

## 9.2. COMMENTS

Comment on standard of the students starting the course

Comment on the 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

Comment on the adequacy of the facilities and teaching programme to train the existing number of students

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

Comment on the percentage of students that will eventually graduate

The Faculty Board proposes the number of places, which must be approved by the University of León Government Council and also by the Castilla and León Regional Government, Department of Education, through the Single District Committee.



In general, students entering the first year have outstanding secondary school academic records. The access mark is high for the University of León. Moreover, the percentage of students enrolled in the first-year of this Faculty who choose Veterinary Science as their first option for University study is very high (95%); thus, the level of motivation of our students tends to be elevated.

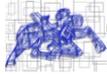
### 9.3. SUGGESTIONS

If you are not satisfied with the situation, please state in order of importance any suggestions that you may have concerning this Chapter if you feel unhappy about:

- ➔ The number of students admitted
- ➔ The drop-out percentage and reasons, if known
- ➔ The average duration of studies
- ➔ Other aspects

Although the current number of students admitted is no ideal, the Faculty has made an effort to provide good training in practical sessions. We try to adapt our student intake to the availability of human and material resources and means. The number of teachers makes difficult to maintain small practical groups in which the individual student carries out the practice. We consider that the teaching staff, especially in clinical areas, should be increased. A notable reduction in student intake would be welcomed, especially if staff numbers are not to be increased.

The drop-out rate at the Faculty is fairly low, averaging around 10%. Drop-outs include those students who fail to register for the second year because the Veterinary Medicine degree was not in fact their first choice, and students with financial difficulties.



The average duration of studies is excessive. Students have a considerable academic level, but the current syllabus implies a heavy workload, making it difficult to complete the degree over the minimum five-year period. Students are required to complete a total of 4,110 hours of training. The Conference of Deans of Spanish Veterinary Faculties routinely requests that the Spanish Ministry increase the duration of the degree from 5 to 5.5 years.

The lack of any legal limit on the number of subjects for which a student can register, and the fact that it is not necessary to meet certain requirements in order to move from one year to the next, have given rise to the following problems:

Many students register for too many subjects, which they therefore cannot adequately complete.

Too many students register for subjects corresponding to different years, even though the academic timetable is published before the enrolment process begins; students should check the timetable for possible overlaps, but in practice fail to do so, causing difficulties which inevitably affect their performance and the duration of their studies.

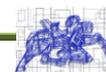


## CHAPTER 10

# ACADEMIC AND SUPPORT STAFF

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## CHAPTER 10. ACADEMIC AND SUPPORT STAFF

### 10.1. FACTUAL INFORMATION

Table 10.1. Personnel in the establishment provided for veterinary training

1. Academic staff	Budgeted posts (FTE)		Non-budgeted posts (FTE)		Total(FTE)	
	VS	NVS	VS	NVS	VS	NVS
Teaching staff	73	30.8			73	30.8
Research staff <sup>(1)</sup>			2.0	1.25	2.0	1.25
Total FTE	73	30.8	2.0	1.25	75	32.05
<b>Total FTE (VS + NVS)</b>	<b>103.8</b>		<b>3.25</b>		<b>107.05</b>	
<b>2. Support staff</b>						
a) responsible for the care and treatment of animals	6				6	
b) responsible for the preparation of practical and clinical teaching <sup>(2)</sup>	25				25	
c) responsible for administration, general services, maintenance, etc.	14				14	
d) engaged in research work			6		6	
e) others (VTH) <sup>(3)</sup>			9		9	
<b>Total support staff</b>	<b>45</b>		<b>15</b>		<b>60</b>	
<b>3. Total staff</b>	<b>148.8</b>		<b>18.25</b>		<b>167.05</b>	

(1) PhD students performing also teaching activities (financed by the Spanish Education Ministry or Regional Government). They are involved with 0.25 FTE each one

(2) Laboratory technicians and assistants (usually involved in Department staff)

(3) 9 veterinarian internship

FTE: Full time equivalents

VS: Veterinary surgeons

NVS: Non-veterinary surgeons

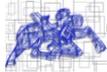


Table 10.2. Allocation of academic (veterinary surgeon and non veterinary surgeon) teaching staff - expressed as FTE - and support staff to the various departments

Department name	Academic teaching staff										Support staff (see table 10.1)		Admin.	
	CU		TU		CD		AS		PAD		Technical	Animal careers		
	VS	NVS	VS	NVS	VS	NVS	VS	NVS	VS	NVS	(b + d + e)	(a)		(c)
<b>Biodiversity and Environmental Management</b>				1								1		
<b>Molecular Biology</b>		2		1								4		1
<b>Biomedical Sciences</b>	2	5	4	8		1				1		4		1
<b>Food Hygiene and Food Technology</b>	4		9	4	1	1	2					4		1
<b>Veterinary Medicine, Surgery and Anatomy</b>	5		15		1					1		6		1
<b>Animal Production</b>	5		13	2								5		1
<b>Applied Physics and Chemistry</b>		1		1						1		1		
<b>Animal Health</b>	5	1	10	3	1							6		1
<b>VTH</b>							4					9		
<b>Faculty, Centralised Services</b>													6	8
<b>Total</b>	<b>21</b>	<b>9</b>	<b>51</b>	<b>20</b>	<b>3</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>1</b>	<b>2</b>		<b>40</b>	<b>6</b>	<b>14</b>

**VS:** Veterinary surgeons

**NVS:** Non-veterinary surgeons

**CU** (*Catedrático de Universidad*): Full professor

**TU** (*Profesor Titular de Universidad*): Professor

**CD** (*Profesor Contratado Doctor*): Contracted PhD holding professor, permanent position

**AS** (*Profesor Asociado*): Contracted professor, non-permanent, partial time

**PAD** (*Profesor Ayudante Doctor*): Permanent, full time



Tab. 10.3: Ratios students/staff

**R1: No. undergraduate veterinary students / no. academic FTE**

$$\text{R1: } \frac{\text{no. undergraduate veterinary students}}{\text{no. total academic FTE}} = \frac{611}{107.05} = 5.71$$

**R2: No. undergraduate veterinary students / no. total FTE**

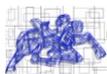
$$\text{R2: } \frac{\text{no. undergraduate veterinary students}}{\text{no. total FTE at Faculty}} = \frac{611}{167.05} = 3.66$$

**R3: No. undergraduate veterinary students / No. total VS FTE in veterinary training**

$$\text{R3: } \frac{\text{no. undergraduate veterinary students}}{\text{no. total VS FTE}} = \frac{611}{75} = 8.15$$

**R4: No. students graduating annually / No. total VS FTE in veterinary training**

$$\text{R4: } \frac{\text{no. students graduated annually}}{\text{no. total VS FTE}} = \frac{104}{75} = 1.39$$

**R5: No. total support staff in veterinary training/ No. total FTE academic staff in veterinary training**

$$\text{R5: } \frac{\text{no. total support staff}}{\text{no. total FTE academic staff}} = \frac{60}{107.05} = \mathbf{0.58}$$

- ➔ Outline how the allocation of staff to the Faculty is determined
- ➔ Outline how the allocation of staff to the departments (or other units) within the Faculty is determined

Every Department has the right to request new teaching and support staff. Teaching staff may be divided into two groups: tenured and non tenured (contracted); the selection process used is different in each case. In both cases, funding is provided by the University of León and the Castilla and León Regional Government. The status of University teaching staff is currently governed by the Organic Law on Universities (published in 2001, and amended in 2007), by the regulations of the Castilla and León Regional Government and by Statutes of the University of León.

Tenured positions (called "*Profesor Titular (TU)*"=Professor, and "*Catedrático (CU)*"=Full Professor) are civil servants. Non-tenured or hired (contracted) posts are mainly intended for young teachers.

Staff needs are determined by Departments themselves, who present the request for posts to the Vice-Chancellor of Teaching staff of the University of León. Requests to take on additional staff or replace current staff are approved or rejected by the University depending on the funds available and to the staff needs calculated by the Chancellor's Office for each Department according to the so-called University Teaching Capacity in the different Areas of Knowledge. This document establishes the need for academic staff based on the



number of students, teaching credits and number of practical groups.

If the request is approved by the Chancellor's Office, the post is advertised and selection is performed following the National Accreditation Process (according to regulations laid down in the Organic Law on Universities).

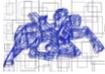
When posts for contracted teachers are involved, the Chancellor's Office carries out the recruitment and appointment process as per the regulations set out in the LOU and by the Regional Government. All contracted lecturers teach in the department in accordance with the terms of their contracts; in most cases, they also carry out research.

All permanent tenured and non-tenured (contracted) teaching staff are full-time employees (37.5 hours/week): eight hours of classes (21.33%); six hours of tutorials(16%) and the remaining 23.5 hours (62.66%) of research and student advisory services.

The maximum teaching load, based on 12 hours of classes per week and 30 weeks of classes per year, is 360 hours, the equivalent of 36 full-time credits.

The number and distribution of Administration and Services Personnel (PAS) is laid down in the current Employment Schedule (RPT) at University level. This schedule takes into account the requirements of each Faculty and/or Department involved. It should be noted that certain Departments in any given Faculty may also provide tuition, services or staff to other Faculties. In such cases, support staff numbers are determined on the basis of the number of staff dealing solely with Veterinary undergraduates, and the proportion of staff also working for other faculties.

There are two types of Administration and Service Personnel: Civil servants and Contracted positions. In both cases, funding, selection and staff appointments are dealt with at University level, i.e. funds are provided from the University budget, except for research support staff, whose salaries may be paid through research contracts and projects funded by private or public bodies outside the University.



Civil-service support staff is appointed through public examinations held by the University itself. Short-term hired support staff are paid from the University budget, and selected from a standing shortlist of qualified candidates. Posts linked to research contracts or projects are filled by the research group in question, in accordance with previously published criteria.

- ➔ Indicate whether there are difficulties in recruiting or retaining staff
- ➔ Describe (if appropriate) any relevant trends or changes in staff levels or the ability to fill vacancies over the past decade
- ➔ Indicate whether it is easy to employ additional staff from service income (e.g. from revenues of clinical or diagnostic work)

Candidates for permanent posts are required to comply with a set of demanding criteria at national level. The clear criteria laid down by the appointments committee for the selection of temporary (non-budgeted) staff has also given rise to a highly-competitive field of candidates and thus to well-qualified staff. Nonetheless, the University has not yet managed to create a “teaching career” that would guarantee teachers stable employment and fair prospects for professional promotion in accordance with pre-established criteria.

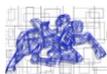


- ➔ Describe the regulations governing outside work, including consultation and private practice, by staff working at the establishment
- ➔ Describe the possibilities and financial provisions for the academic staff to:
  - a) attend scientific meetings
  - b) go on a sabbatical leave

Full-time teaching staffs are not allowed to work outside the University, except in official institutions with the prior approval of the University (Law 53/1984, 26 December, regulating additional work by civil servants). Part-time lecturers are allowed to take additional employment outside the University. Both the Organic Law on Universities and the University Statutes permit the signing of contracts between teaching staff and people, Universities and public or private bodies for a specific scientific task.

The University (the Vice-Chancellor for Research) offers financial support for attendance at scientific congresses, through its own funding programme. Due to the large number of applications received in recent years, a limit has been placed on the number of annual bursaries. Additional funds usually come from research grants, projects, contracts, etc. Attendance at congresses is funded only when the applicant will be presenting a paper or poster.

Sabbatical leave is regulated by the University statutes. Tenured lecturers and long-term staff may request one sabbatical year for every five years of continuous service at the university. Their salary during this period is fixed by the Governing Council.



## 10.2. COMMENTS

- ➔ Comment on the numbers of personnel in the various categories
- ➔ Comment on the ease or difficulty of recruiting and retaining personnel

Current status of the staff of the Faculty of Veterinary, sorted by professional category, is shown in Table 10.2. Overall, the potential and the quality of teaching is high, treasuring a long teaching experience. There has been a significant stabilization of teachers in the last years, which has undoubtedly had a positive effect on their expertise and dedication to teaching.

However, there is a limited number of associate professors and contracted professors, and, currently, no assistant professors. Moreover, the average age of teachers has increased dramatically without any measure taken to ensure their renewal.

Taking as a reference the previous assessments by the Committee for Veterinary Training of EAEVE in 1989 and 2001, the evolution of the situation of teachers is indicated in the table below:

	<b>CU</b>	<b>TU</b>	<b>CD</b>	<b>PA</b>	<b>AS</b>	<b>TOTAL</b>
<b>Year 1989</b>	26	66		44	3	<b>139</b>
<b>Year 2001</b>	25	92		9	5	<b>131</b>
<b>Year 2014</b>	29	71	6	2	6	<b>114</b>

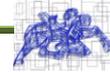
**CU** (*Catedrático de Universidad*): Full professor

**TU** (*Profesor Titular de Universidad*): Professor

**CD** (*Profesor Contratado Doctor*): Contracted PhD holding professor, permanent

**PA** (*Profesor Ayudante*): Assistant, permanent

**AS** (*Profesor Asociado*): Contracted professor, non-permanent, partial time



If in 1989 the pyramid of teachers already had a limited basis, with 44 teaching assistants, in 2001 the number fell drastically, reaching the current situation in which teaching assistants have disappeared.

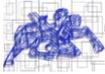
In 1989, the age of most of the teachers stood between 35 and 45 years, between 45 and 55 years in 2001, and currently, between 55 and 60. The Faculty has aged with no provision having been made for their replacement.

Early Voluntary Retirement Plan of the ULE in 2010 phase marked the retirement of four faculty members from areas directly related to the Veterinary Faculty. In 2012 phase, nine teaching posts have disappeared at the Faculty. However, these areas have not been provided with any Assistant Professor or Doctor Assistant Professor. Posts are lost as they retire or benefiting from the voluntary retirement scheme and there is no renewal of these posts.

Governing bodies of the University are not aware that the staff and the budget that should be devoted to the Veterinary Faculty cannot follow the same criteria used for other university degrees.

We believe that the number of administrative and services staff should increase, especially the ones related to teaching activities. This staff not only has not increased in the last 10 years but has been reduced and no specialization has been promoted by conducting refresher or new technologies courses.

Moreover, it is difficult to understand that timetable of most of the administrative and service staff does not match the teaching and research activities timetable in the Faculty. It would, therefore, be advisable to split their working day in morning and afternoon sessions, to meet the educational needs conveniently.



Comment on the salary levels, especially those of academic staff in relation to the level of income in the private sector

Compared to salaries in the private sector, and indeed in the civil service, the salaries of teaching staff are relatively low. The high qualifications required in order to secure a position as lecturer are not reflected in the salaries paid. This may negatively affect the appointment of young professionals, who are dissuaded from going into teaching or research.

Currently, implementation of some economic incentives has improved salary levels for academic staff. Merits concerning teaching quality, research quality, and participation in the University management are evaluated each 5-6 years.

Comment on the percentage of veterinarians in the academic staff

A 70% of the Faculty's academic staff are veterinarians. In the most specific departments involved in the degree course (Veterinary Medicine, Surgery and Anatomy; Animal Production; Food Hygiene and Food Technology; and Animal Health), 90% of the academic staff are veterinarians, whilst this percentage drops to 0-40% in the Departments of Basic Sciences (Biomedical Sciences, Molecular Biology; Applied Chemistry and Physics).

### 10.3. SUGGESTIONS

The R1; R2; R3; R4 and R5 ratios for the Faculty are reasonably satisfactory. A few comments can be made in this respect:



- ▶ To achieve the goal of the new teaching methods (didactic teaching to small groups, problem-oriented learning, etc) will be necessary to **increase the number of academic staff.**
- ▶ A review of teaching recruitment criteria, introducing the specificity of the practical teachings of the Veterinary Faculty and the research activities developed by teachers and Departments.
- ▶ It is necessary to convert the posts of teacher staking the voluntary retirement scheme into **Assistant Professor posts in the same area of knowledge.**
- ▶ The provision of posts of Assistant Professor, Associate Professor, etc. are essential in those areas involved the teaching of Clinical Sciences and Food Hygiene and Public Health subjects.





## **CHAPTER 11**

# **CONTINUING EDUCATION**

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## CHAPTER 11. CONTINUING EDUCATION

### 11.1. FACTUAL INFORMATION

Please describe the role of the Faculty in providing continuing education.

There is no specific continuous programme within the Faculty to offer postgraduate courses. At the moment, it is limited mainly to organizing summer courses. Collaboration from professional associations (School of Veterinarians) is scarce and the needs of professional veterinarians are unknown. Any initiative in organizing courses is normally the responsibility of each individual department or the students' association.

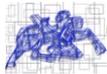
The University of León-Consortium for Ovine Promotion' Agreement has organized the following courses:

- ▶ I National Course on "Milk Quality, Safety and Certification in Dairy Sheep" addressed to Veterinarians. November 17-18, 2011
- ▶ II National Course on "Milk Quality, Safety and Certification in Dairy Sheep and Goats" addressed to Veterinarians. October 16-17, 2012

With regard to the associations, those ones which are hold at the Faculty and are very active offering this kind of education:

A "Veterinary Week" was celebrated at the beginning of the course 2014-2015 involving all the student associations of the Faculty.

- ▶ "Veterinary Association for the Attention of Exotic and Wild Fauna" (AVAFES)



- Environmental Management: extensive farming and wildlife (2012)
  - Wildlife first aid and rehabilitation course (2012)
  - Management and clinics of wild feline (2013)
  - Tracking of Vertebrate Iberian Fauna(2013)
  - Introduction to the exotic clinical medicine (2014)
- ▶ “International Association of Veterinary Students” (IVSA)
- Course of Medicine and Feline Ethology (2012)
  - Oncology, Hematology and Analytics in Veterinary clinic (2013)
- ▶ “Association for the knowledge and spreading of the *Lidia* bovine breed” (ACODIL)
- Innovation in dairy and meat products (2012)
  - The Horse: Management, Surgery and Reproduction (2013)
- ▶ “Association of Food Scientists and Technologists of Castilla and León (ACTA/CL) [www.actacl.es](http://www.actacl.es).
- ▶ “Canine Society of León”.

The Faculty collaborates in the organization of these courses.

In addition, the Faculty and the Departments use to organize conferences of different topics related to Veterinary Sciences, by professionals of this sector (coming from agro-food companies, public administration, etc.).

Undergraduates in their final years, practicing or unemployed veterinarians wanting to update their knowledge or improve on certain aspects of the profession participate, mostly, in these courses.

Regarding the Veterinary Teaching Hospital, they were organized the following courses: “Course on Veterinary Ophthalmology”, “Basis of Intratisular Percutanea Electrolisis”® in Veterinary” and “Applications of the echography in bovine reproduction”.



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## 11.2. COMMENTS

- ➔ Comment on the quality of the continuing education programmes in which the Faculty is involved
- ➔ Comment on the degree of participation of veterinarians in the continuing education programmes in which the Faculty is involved

Continuing education in the Faculty is not easy to increase, due to the lack of academic recognition, the lack of tradition in the Spanish Universities to organize these activities and to the fact that the participation on continuing education is not compulsory to maintain the license to practice as a Veterinarian.

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## 11.3. SUGGESTIONS

An effort should be made to increase the offer of postgraduate education, despite the difficulties indicated above.





## CHAPTER 12

# POSTGRADUATE EDUCATION

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## CHAPTER 12. POSTGRADUATE EDUCATION

This heading covers all further training leading to a diploma - special postgraduate studies, Ph.D. courses, research training programmes, and national or European College specialised qualifications. Please provide details of all postgraduate training opportunities in tabular form under “Factual Information”

### 12.1. FACTUAL INFORMATION

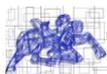
#### 12.1.1. CLINICAL SPECIALTY TRAINING (INTERNS AND RESIDENTS)

At present, the Faculty does not offer a Clinical Speciality Training. The Veterinary Hospital has a Veterinary Clinical Internship Program in which 9 interns are involved.

On staff of the Veterinary Faculty of León there are eight College Diplomates in different specialities.

Table 12.1. College Diplomates on staff of the Veterinary Faculty

<b>Juan Carlos Domínguez Fernández Tejerina</b>	European College of Animal Reproduction
<b>Luis Anel Rodríguez</b>	European College of Animal Reproduction
<b>Francisco Rojo-Vázquez</b>	European College of Veterinary Parasitology
<b>Juan Francisco García Marín</b>	European College of Veterinary Pathologists
<b>Valentín Pérez Pérez</b>	European College of Veterinary Pathologists
<b>Pedro Rubio Nistal</b>	European College of Porcine Health Management
<b>Ana Carvajal Urueña</b>	European College of Veterinary Public Health
<b>Miguel Prieto Maradona</b>	European College of Veterinary Public Health



- ▶ Since 2009-2010, the Faculty holds the **Master on Research in Veterinary and Food Science and Technology**. This is a one year master, which is official in Spain. The number of students per year is 20-30. It has a website ([www.doctoradoveterinaria.com](http://www.doctoradoveterinaria.com)). The syllabus, organization and students admission are the concern of the Master Commission of the Faculty.
- ▶ In addition, the Faculty offers a **PhD Program (Program in Medicine, Animal Health and Production and Food Science)** ([www.doctoradoveterinaria.com](http://www.doctoradoveterinaria.com)) since 2009. It integrates a total of five Doctorate Programs, with a "*Mención de Calidad*" Spanish qualification, offered by four Departments belonging to the Faculty. This program is coordinated by the Faculty. At present, it is being adapted to the new Spanish legislation on PhD Programs and, from 2013-2014, it has changed to the **PhD Program on Veterinary and Food Sciences**, which will differ slightly from the actual one.

The Doctorate programme confers aptitude in the field of research and, after reading a thesis, the qualification of Doctor. Many students taking part in these programmes receive grants from different organisms such as the University itself, County Council, Regional Government and Ministry of Education, etc. The organisation of the syllabus is the concern of the Doctorate Commission of the Veterinary Faculty; the student admission is the concern of both, this commission and the Doctorate Commission of the León University. The number of grants available for recently graduated students to go into research has increased considerably over the last few years. This has made it possible for students to present degree theses or begin postgraduate training/education.

### 12.1.2. RESEARCH EDUCATION PROGRAMMES

Table 12.2. Number of research students enrolled in different programs

Type of degree	Fulltime	Part time	Duration
PhD*	34	2	4-5 years

\*Program in Medicine, Animal Health and Production and Food Science.



In the 3 last academic years, 34 students have started the Doctoral Thesis under the PhD Program in Medicine, Animal Health and Production and Food Science.

In addition, from 2007 to 2009, a total of 85 Doctoral Thesis were registered and, of them, 45 were defended, in the previous PhD Programs:

- ▶ Animal Medicine and Surgery
- ▶ Ovine Production and Health
- ▶ Animal Health and Reproduction
- ▶ Ruminant Feeding
- ▶ Strategies for the Improvement and Quality Control In Food of Animal Origin

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## 12.2. COMMENTS

An important effort has been made in the last years to offer research educational programmes and at present, the Faculty can offer to the graduates a Master and a PhD Program. However, the number of doctoral thesis read in the last years is quite low. The PhD Degree is a formative stage in the long line of requirements necessary to undertake a career in University teaching. Currently, this career is getting more difficult due to the lack of teaching contract possibilities.





**CHAPTER 13**  
**RESEARCH**

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## CHAPTER 13. RESEARCH

### 13.1. FACTUAL INFORMATION

The details requested under this heading relate only to research experience offered to students during their **undergraduate** training, for example through project work

Indicate the involvement of undergraduate students in research, including the time spent, percentage of students involved and outcome required

Besides teaching, the University should also carry out research. It should train specialists in the professional field as well as contributing to the scientific preparation of its future teaching staff and training of specialist veterinarians. Thus, research and teaching are inseparable. Research constitutes an important method of higher education, especially in postgraduate studies.

It is becoming more and more obvious that research and the teaching process complement each other and are dependent on each other in different ways. It is through the learning process that research methods are taught.

The importance of research in Spanish universities is mostly limited to postgraduate studies. However, those students wishing to undertake research before obtaining a degree are given the opportunity to write a minor thesis on research tutored by a teacher from the Faculty.

The Departments integrated in the Faculty use to hold students, mostly in their last year, who carry out research in different projects. These students may be granted with different scholarships ("collaboration grants" and "summer residences" in research groups). Here is a summary of the number of students who joined these programs during the last 3 academic years:

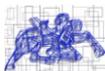


Table 13.1. Undergraduate research activities during the last three years

	2012	2013	2014	TOTAL
<b>Colaboration scholarships</b>	17	17	17	56
<b>Summer residences</b>	12	10	12	41
<b>TOTAL</b>	<b>29</b>	<b>27</b>	<b>29</b>	<b>97</b>

## 13.2. COMMENTS

Comment on the opportunities for students to participate in active research work

The students have the possibility to start a research work in the Faculty through the scholarships mentioned. This offer of scholarships can be considered sufficient. However, as far as possible, an effort should be made to involve students in the different lines of research being carried out, though only to a certain extent at certain stages of the research in process. Obviously, this can only occur in departments where research is actually being carried out.

Because of their studies, students can only dedicate a very limited amount of time to research. The time students spend on research is limited and depends on examination periods. On average, the maximum amount of time is 10-12 hours per week. The number of students depends on the subject and teachers in charge. In the case of subjects where resident students are incorporated, the average number is 2-3 students. This, however, also depends on how many are available to carry out the research. The students form part of research groups already in operation and are assigned tasks supervised by teachers.



In 2004 curriculum, the way to give students the opportunity of participating is to offer them introductory research work (minor thesis, "*Tesina de Licenciatura*") in the final year of their studies. Many students contact the teaching and research department to inquire about doing a minor thesis as undergraduates. They often become interested in research carried out at this time and later apply for admission to prepare a thesis. The possibility of students being able to do this depends on subsidized projects, means available and how much time the department has available, etc. Over the last five years a total of 16 minor theses were read in the Veterinary Faculty.

From the present academic year 2014-2013 the students have to elaborate the Degree Dissertation on any area of veterinary knowledge at the end of the Degree. Mainly this dissertation is based on a research work proposed by teachers of the Departments involved in the Veterinary Degree.

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### 13.3. SUGGESTIONS

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Will students be given more opportunity to participate in research activities?

If so, how will this be done?

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It would be desirable for final year students to participate more actively in research work conducted by research groups. With the offer of the new Master on Research in Veterinary and Food Science and Technology and the new PhD Program (see Chapter 12), the interest of students on research could increase.

Offering information regarding the scholarships for undergraduates and the possibility to carry out a research work from the beginning of the Degree would be advisable.