

**European Association of Establishments for Veterinary Education
(EAEVE)**

**and the Federation of Veterinarians of Europe
(FVE)**

European System of Evaluation of Veterinary Training

**REPORT ON THE VISIT TO THE FACULTY OF
VETERINARY MEDICINE OF THE
UNIVERSITY OF EXTREMADURA IN CACERES, SPAIN**

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INTRODUCTION

The Faculty of Veterinary Medicine (FVC) of the University of Extremadura (UEX) was created in 1983 and is situated at the Caceres Campus. It was initially visited by the Advisory Committee on Veterinary Training (ACVT) in 1985 and was fully evaluated in February 1995. The results and the subsequent changes have been fully described in the SER pages 7 to 18.

From 08-12 March 2010, an EAEVE/FVE Visiting Team undertook a full evaluation of the FVC at the Caceres Campus. Prior to the visit, the FVC supplied a thorough Self-Evaluation Report, which acted as the basis for the evaluation. The programme and accompanying arrangements were well organized.

1. OBJECTIVES & STRATEGY

Questions to be covered:

- 1) *Clear statement of objectives? Yes*
- 2) *Do the objectives cover the total education programme adequately? Yes*
- 3) *Is undergraduate education the primary reason for the existence and funding of the establishment? Yes*

1.1 Findings

The general objectives of both the University of Extremadura and its Faculty of Veterinary Medicine are clearly outlined. (SER pp21-23).

The objectives listed as “specific” or “other” of the FVC cover the breadth of the educational programme. (SER pp23-25).

It can also be observed, that undergraduate education is the primary reason for the existence and funding of the FVC.

Significant efforts are made to measure the achievement of objectives and the FVC has set up a Quality Guarantee System as required by the Spanish national and local Quality Assurance Agencies. (SER pp25-27).

1.2 Comments

- It can be generally stated that most objectives are achieved.
- Strengths (SER pp27-30) and weaknesses (SER pp31-33) as determined by the Spanish National Agency for Quality Assessment and Accreditation have been outlined in detail on the SER pages indicated.
- Teaching and Research are the major strengths and the visiting team took note of the fact that, although it is not part of the FVC, the University Veterinary Clinical Hospital, unlike some other Spanish establishments, is primarily a teaching instrument and does not just exist as a semi-commercial enterprise with profit as the primary objective.
- Budget constraints and the lack of adequate support staff, particularly with respect to the Teaching Farm, are the most significant weaknesses. It was also highlighted by

the visiting food hygiene expert, that the management, cleanliness, slaughter procedures and animal welfare were very poor at the slaughterhouse visited.

1.3 Suggestions

1.3.1 **A significant increase in the number of Support Staff for teaching, particularly at the teaching farm as well as for research appears to the visiting team to be essential.**

1.3.2 **All teaching staff of the FVC which provides active clinical teaching at the Veterinary Hospital should have this service recognised and honoured.**

2. ORGANISATION

Questions to be covered:

- 1) *Brief structure and organization summary* **See text**
- 2) *Does Faculty have adequate influence on University policy?* **No**
- 3) *Is it suitably "autonomous" i.e. does it have adequate flexibility?* **No**
- 4) *Effective structure for decision making?* **Possibly but splintered**
- 5) *Are departments coordinated amongst themselves in terms of use of resources?* **No**

2.1 Findings

The University of Extremadura has 4 campuses within the State of Extremadura and involves 11 Faculties, 4 University Schools and 3 University Centres with a total of approximately 20,000 students (SER p7 & pp37-39).

The UEX has bilateral control; firstly, the Spanish National Ministry of Education represented by the National Secretary of Universities and, secondly, the Provincial Government of Extremadura through its Department of Economy, Trade and Innovation, represented by the General Director for Higher Education and Leadership. (SER p38).

The Veterinary Educational Establishment is located uniquely on the Caceres Campus. A few basic subjects are taught in Caceres by Heads of Departments administratively based at the Badajoz Campus and are listed on SER p49.

The structure is unusual to say the least in that:

- a) The **Veterinary Faculty** is responsible for organizing teaching and supervising the correct development of teaching activities and receives a nominal expenses budget from the University. (SER p40, pp41-46 & pp50-56). There are 104 teaching staff, 65% veterinarians, 235 support staff, 688 students (394 female, 294 male and 26 foreign). On average, 86 students graduate each year.
- b) The **University Departments** are responsible for research and undergraduate and postgraduate education and the Heads of Departments receive the bulk of the budget from the University directly, without reference to the Dean of the Faculty. (SER p40, pp47-49)
- c) The **Veterinary Teaching Hospital (VTH)** is a University/Society Foundation or Trust. The Executive Manager is appointed by the Board of the Foundation and the Veterinary Director is nominated by the Rector of the University.

2.2 Comments

- The difficulties associated with the rather rigid centralized Spanish laws on education are well known to the EAEVE. (SER pp56-57).
- At the present time the older curriculum is being replaced by the latest 2009 curriculum, which rather complicates the evaluation, since it will take 5 years before the curriculum will be uniform.
- The FVC has little influence on University policies and also virtually no autonomy.

2.3 Suggestions

2.3.1 The structural separation of the Faculty and the Departments is unique amongst EAEVE member establishments and in the opinion of the visiting team is counterproductive. It is strongly suggested, that the Departments be brought into the Faculty, with the Dean having overall academic and economic/financial answerability.

2.3.2 Interdepartmental cooperation should be strengthened.

3. FINANCES

Questions to be covered:

- 1) *Short summary of financial and budgetary structure and who controls it?* **See text**
- 2) *Any additional income generated?* **Yes**
- 3) *Is level of funding adequate?* **Not really**
- 4) *Is there a good balance between capital spends and running costs?* **Probably**
- 5) *Is there a good balance between research and teaching funding?* **Yes with additional external sourcing**
- 6) *How much autonomy to allocate budget?* **None**

3.1 Findings

The standard Spanish financing model is present as far as the University, with the National Ministry of Education allotting a lump sum, calculated using a complex formula whereby student number is a significant factor, to the Regional Autonomous Government of Extremadura for Educational purposes. In addition, the University receives additional income from tuition and registration fees, fees for certificates and other documents and external services provided by the University, such as publications, services and events (conferences and congresses). (SER p61)

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 Central Services of the University. (SER p62)

From here on, the system is unique, since the University decides on the assignment of the funds to the Faculties, Centres and Departments, using a formula including student numbers, staff, space and research intensity. The VFC receives a minor budget for maintenance. Most of the budget goes directly to the Departments, where the Department Head decides how to use it.

Additional income is generated by (SER p 63):

- a) Clinical services offered by the University Veterinary Clinical Hospital, whose profits are ploughed back into the University.
- b) Diagnostic and External Services
- c) Research Grants and Projects
- d) Other Income from Continuing Education, Diplomas etc.

3.2 Comments

- Following the tables on SER p64, the Faculty had an income in 2009 of € 9.189.440,00 and an expenditure of € 8.367.132,00. It is a little unclear whether this is a full costing or not, because the figure given of €7.134,00 direct cost for training a veterinary student per year is well below the lowest full costing in the European scenario.
- Although the costs seem to have been covered in 2009, the change in curriculum to meet the needs of the European Higher Education Space, further teaching and support staff are necessary for full implementation and this is difficult due to general University restrictions on hiring new staff.
- In order to maintain the quality of practical classes for example, often research funds have to be diverted. This is an undesirable situation.
- New or replacement of large equipment is very problematic, because the funding can only be from the University or external, government or industry.
- The Faculty and Departments have no autonomy with regard to building modifications or improvements. There is a central University Service, but this has limited capabilities and has to cope with the needs of the whole University.

3.3 Suggestions

3.3.1 In order to enable activities to be coordinated properly, serious consideration should be given to creating a Faculty into which the Departments have been merged and all finances channelled through the Dean and Faculty.

3.3.2 Set up a Faculty Building and Facilities Maintenance and Improvement Budget.

4. CURRICULUM

4.1 GENERAL ASPECTS

Questions to be covered:

*1) Seems as in SER or indicate variances? **Yes, no variances***

*2) Curriculum fixed by law or otherwise? **Yes, quite strictly at the national level***

*3) Important to verify clinical training figure in SER corresponds to supervised intensive hands-on clinical training in small groups. Note: extramural vacation work or large group demonstrations should not be included as clinical work **See text***

- 4) Curriculum balance and coverage OK? **OK**
 5) Comment on practical to theory ratio **No major problems**
 6) Ratio of clinical work to lectures and practical work must be checked with SOP **Checked, correct**
 7) Ratio of theory to practical and clinical work must be checked with SOP **Checked, correct**
 8) Comment on courses integration, electives & extramural work arrangements **No major problems**

4.1.1 Findings

The Veterinary Studies Programme at the Veterinary Faculty of the University of Extremadura extends over 5 years (10 semesters). The Visit occurred in a transition phase from an “old” (1999) to a new “Bologna-adapted” curriculum (2009), with only one year already implemented.

The “old” curriculum is structured in two cycles: the first cycle (1st and 2nd year) includes basic teaching and general training, while the second cycle (3rd, 4th and 5th year) is devoted to a pre-specialisation and preparation for professional activity. Subjects taught are ranked in: i) core subjects, mandatory for all students; ii) elective subjects, offered at the Faculty level; iii) optional subjects, offered at the UEx level. Of a total of 398 10 hours-credits making up the syllabus, 335.5 correspond to core subjects (83.8%), 22.5 to elective and 42 to optional. The core part of the syllabus comprises 15 10-hours credits of obligatory extramural training, known as “Estancias”.

The “new” curriculum is composed of 300 25-hours ECTS credits, including the self-directed study time by the individual “average” student. Core subjects account for 288 credits (96%) and electives offered by the Faculty for the remaining 12 credits. The obligatory extramural training will increase to 24 ECTS credits (600 hrs.)

The two curricula currently adopted by the Veterinary Faculty in Caceres have been largely developed at the national (Ministry of Education and Science) level.

In the core part of the “old” curriculum (the one received by most students currently at Caceres), EU-listed subject areas weight as follows (% of the whole training time calculated from Table 4.1 SER pg 76-81):

Subject area	% training time	% practicals
Basic subjects	6.9	41.6
Basic sciences	27.3	39.5
Clinical sciences	34.3	42.6
Animal production	15.1	37.1
Food hygiene/Public health	12.1	31.4
Professional knowledge	4.3	100.0
TOTAL	100.0	46.5

The corresponding % time devoted to practical activities is reported in the right column.

No structured tracking system is organized within the curriculum.

The aim of the Estancias previously mentioned is to integrate future veterinarians into “real” field practice in a variety of areas of veterinary professional activity. To have access to Estancias, students must have passed 198.5 core credits. The 15 extramural activity-related credits can be obtained through either a single 1-month internship or two 15 days-internships, the second option being more encouraged by the Faculty. A long list of establishments where students can take their Estancias is available in Tables 5.1 to 5.9 of the SER (pp 82-85).

4.1.2 Comments

- There were no major discrepancies with information reported in the SER.
- Freedom by the Faculty to modify the curriculum is obviously limited, but this Spanish national law-based characteristic does not seem to imply structural difficulties in fulfilling current EU-requirements in veterinary education. Accordingly, the “old” curriculum is balanced and covers to a good to sufficient degree all requested areas and subjects. A further increase in practical activities is expected with the progressive implementation of the “new” curriculum.
- Comments on the clinical training figures in SER will be reported in a later paragraph (see 4.4.2).
- No evidence of unnecessary duplication of contents between subjects was collected by the team.
- Feedback from veterinary practices/institutions about the students undergoing mandatory extramural training is more than adequate.
- In general, both students and the academic staff showed limited proficiency in English. Whilst the team’s work was not affected significantly, this limitation could negatively reflect on the use of important learning tools by the students, and the opportunity for young graduates to work and/or specialize in other European/overseas countries.

4.1.3 Suggestions

4.1.3.1 With regard to clinical training, see 4.4.3.1

4.1.3.2 A special program should be implemented to improve proficiency in technical English (speaking in particular). Besides involving professional lecturers to lead students to the reasonable goal of a certified ALTE B2 Level, members of the academic staff should be encouraged to offer part of their subjects in English.

4.1.3.3 Based on findings in the different subject areas (see later in this chapter), the team strongly support the opinion of the Faculty (and of the Spanish Deans in general) that a five-and-a-half-year curriculum comprising 300 ECTS credits + 30 additional ECTS credits for practical fieldwork would be a strategy favouring more progressive and equilibrated acquisition of basic and professional knowledge by the students, in view of their better integration into the labour market (SER p 104).

4.2 BASIC SUBJECTS & SCIENCES

Questions to be covered:

- 1) *Do basic subjects form part of the internal curriculum or are they taught elsewhere?* **Yes**
- 2) *How are carcasses handled for anatomy and pathology with relation to chilling/freezing, hoists, trolleys, changing facilities and disposal?* **Adequately**
- 3) *Do incoming students have adequate basic knowledge?* **See text**
- 4) *Are items taught in basic sciences brought into relation to later courses?* **Yes**
- 5) *Adequacy of hours and course materials as well as balance between practical and theoretical work?* **Yes**
- 6) *Is there adequate hands-on participation by students in anatomy?* **Yes**
- 7) *Are the groups too large?* **No**

4.2.1 Findings

The basic subjects and sciences are taught as part of the internal curriculum at FVC.

The curriculum in the basic subjects and sciences seems to cover all the necessary aspects for basic veterinary training.

Although many students are supposed to have adequate pre-university knowledge of the basic sciences, the failure rate in some of the major subjects, such as biochemistry and physiology is close to or surpassing 50%. The reasons for this are unclear, but might be related to the transition from college curricula to the comprehensive curricula at the University. A certain curriculum overload as well as a certain lack of efficient study-techniques could also be responsible for this situation.

Currently, the teaching in basic subjects and sciences is undergoing a profound change due to the implementation of a new (2009/10) curriculum in accordance with the European Space for Higher Education. The full effect of this for the specific basic subjects and sciences is not yet clear. Overall, the curriculum of 2009/10 represents a reduction of the time allocated to teaching in the basic subjects and sciences from approximately 34% to 27% of the total veterinary syllabus (SER pp13 & 102). This reduction of teaching-time invested in the basic subjects and sciences is likely to increase problems related to curriculum overload. Moreover, the new study plan will rely significantly more on self-initiated learning, which is considered positive from a didactic viewpoint, however, this might also impose a challenge, particularly in the first two years as this type of learning is highly dependent upon a strong internal motivation, which frequently is the Achilles heel for veterinary students in the basic subjects and sciences.

4.2.2 Comments

- The teaching in the basic subjects and sciences at the VFC appears well related to para-clinical and clinical subjects. The relevance for veterinary medicine is highlighted in lectures, study questions and data sets used in the pre-clinical teaching. An example of this is given in the course of Mathematics (Statistics) in which all 25 data-sets used for practising data analysis are derived from real-life situations in veterinary medicine.
- The linkage between the pre-clinical sciences and food science appears somewhat lesser developed.

There is some shortage of veterinarians taking part in the teaching in the basic subjects and sciences. No veterinarians are involved in teaching in biochemistry and cellular biology. However, the percentages of teaching staff involved in genetics (Area of expertise: Animal Production SER p:242) and anatomy (Area of expertise: Anatomy and Comparative Anatomy SER p 240) are 60 % and 100%, respectively. The same refers to the suggestion 4.2.3.2.

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- The time allocated to the different subjects appears adequate. However, in the new curriculum (2009/10) microbiology (bacteriology, virology, and mycology) has been significantly reduced. The effects of this should be monitored and evaluated closely.
- There is a reasonable balance between lectures and practical work in the basic subjects and sciences. The students are engaged in various forms of practical activity, some of which are computer-based simulations, whilst others are traditional laboratory work. Moreover, in some subjects the students prepare presentations covering specified topics which are presented in “mini workshops” in front of fellow students and the tutor. This is an instructive way of stimulating self-driven studies.
- Adequate material for anatomy dissections is available and the students work in group sizes that allow sufficient hands-on experience.
- The FVC should be complimented for its development of the new course called “Endocrinology and Metabolic Regulation” which demonstrates a willingness to bridge traditional gaps between the classical subjects “biochemistry” and “physiology”. Similar mosaic courses could possibly also be developed between other subjects as well, while keeping an eye on the total curricular load, which must not be increased, rather the opposite. One possibility would be to develop patho-physiology based on today’s teaching in patho-immunology in an attempt to bridge the pre-clinical and clinical subjects. This could also offer an opportunity to alleviate the acute shortage of staff at the immunology section, which is served by a single permanent position at the moment, which is obviously below the critical mass for a separate section with teaching responsibilities.
- The Faculty intranet (“Virtual Campus”) is utilized with excellence in the pre-clinical teaching. .
- The implementation of the new (2009/10) curriculum is likely to increase problems related to curriculum overload in the preclinical subjects at FVC. Plans for handling and counteracting this should be developed.
- The teaching staff in the basic subjects and sciences at the FVC is highly qualified and enthusiastically engaged in the development and implementation of the new curriculum. There is a clear perception of all the hard work that remains and that unforeseen problems will appear.

4.2.3 Suggestions

4.2.3.1 The FVC should, in the transition phase between the “old” and the “new” curriculum, monitor carefully the study load and be prepared to take adequate actions if the already high failure-rates should increase. A continuous communication and cooperation between teaching and supporting staff in different departments is of great value. Students should also be actively involved in this process as the effects of the new curriculum pan out. The overriding responsibility for coordination of teaching activities is delegated to the “Quality Committee of the Veterinary Degree” in cooperation with the Vice-Dean. However, informal channels of communication should also be encouraged especially related to the further development of translational “mosaic” courses, bridging pre-clinical and clinical subjects.

4.2.3.2 Veterinarians should be encouraged by FVC to enter PhD training in the pre-clinical sciences with the long term goal of qualification for permanent teaching positions in these subjects.

4.3 ANIMAL PRODUCTION

Questions to be covered:

- 1) *Is there a working farm where students can do practical work on animal production? **No, except for sheep***
- 2) *Is there any early exposure to handling of farm animals for city students? **No, except for sheep***
- 3) *Are there sufficient hours of teaching in animal production and is there a good balance between practical and theory? **Yes.***
- 4) *Is agronomy taught and where (silage production, pasture management and use of particular feeds/plants etc.? **Yes.***
- 5) *Is animal production teaching well integrated with related subjects i.e. herd-health management and ailments caused by poor or in-balanced nutrition? **Yes.***
- 6) *Does the teaching of forensic and state veterinary medicine cover the principles of certification with regard to animal transportation? **Yes.***

4.3.1 Findings

Animal production is taught in the Department of Animal Science and Food science. We found here the units of Agronomy and agricultural economy, Animal nutrition, Animal breeding and health, and finally Animal production.

In the first unit, the core subjects are agronomy, agricultural economy, and the technical and economic management of Iberian pig production. Practical training is well organized, and the students perform real time work at a farm level, then writing a complete report about the production covered.

In Animal Nutrition, compound feed technology and feeding applied to animal production are the core subjects taught. Practical training is focused on feed chemical analysis, identification of feedstuffs, nutritional value estimation and price of interest, diets formulation, fattening and digestibility trial procedures especially in lambs. Practical seminars for computerized diet formulation are organized with different methods. At the faculty Farm, the students carry out experiments with different diet formulas for fattening lambs. During the curriculum, the students have to visit a compound feed plant, a vitamin-mineral corrector plant.

In Animal Breeding and Health, genetic analysis of quantitative traits of economical interest, selection methods and genetic improvement plans are taught. Students study also the control of lethal or sub-lethal factors for disease resistance. Different methods for artificial insemination are covered theoretically in the subject Reproduction. Artificial selection and crossbreeding basis are amongst the main topics, with theoretical and practical training. The virtual campus contains the complete database and is a great help for the students.

In Animal Production, the training is divided in animal production and veterinary hygiene, ethology, ethnology and zootechnic, domestic animal morphology. The students must write a complete report about their work in a production farm, related with the daily job of the farmer, and the technical and economical management. Some sessions are organized at the faculty Farm, with the local cows (only seven "Retinto" cows) and sheep. The students must be familiar with the identification of the different breeds of veterinary interest, their behaviour, housing management, and requirements related to the environmental conditions. They visit a livestock show all together.

4.3.2 Comments

- In Agronomy and Agricultural Economy, the curriculum covers all expected topics, with a good balance between theoretical and practical training.

- In Animal Nutrition, the quality of the teaching programme seems to be very high. The virtual campus allows the students an easy access to very large data sets. Abundant international documentation is also available, but when you have a look at the books, those which are not in the Spanish language appear like “new” books, and are never or rarely borrowed. Diet formulation with computerized programmes for practical work is a very good model. The experiments of diet formulation for lambs at the faculty farm are very interesting for the students. However, the observation of practical feeding of different food-producing animals like milking cows or fattening pigs or poultry at the faculty is missing.
- In Animal Breeding and Health, theoretical and practical aspects are correctly taught with a good balance between the two parts. Practical seminars take place at the Virtual Campus, excellent at the VFC. But, students cannot perform artificial insemination at the Faculty or any another a teaching farm, nor get acquainted with reproduction and breeding programmes, except in sheep production.
- In Animal Production and Hygiene, all common domestic species are covered, but there is a lack in teaching of animal welfare. Except for sheep at the faculty farm, students have only limited opportunities to handle cows or pigs.

4.3.3 Suggestions

4.3.3.1 The Faculty should encourage the students to use for study purposes the English publications and books available. They are in general the best references in animal nutrition.

4.3.3.2 There is a need for the student to perform artificial insemination and be exposed to crossbreeding and fertility follow-up programmes in food-production animals, especially livestock and swine.

4.3.3.3 Students should better handle cattle and pigs in a teaching farm, under the supervision of the Veterinary Faculty. The faculty farm or simply the Faculty needs some milking and meat cows and a pig herd at least.

4.4 CLINICAL SCIENCES

Questions to be covered:

- 1) *Does the establishment operate an emergency veterinary service in which students participate and is the latter compulsory or voluntary? **Emergency service for large animals only***
- 2) *Does the establishment operate a mobile clinic and how do students participate in the activities? **Yes, participation is voluntary***
- 3) *Are students covered by liability insurance during extramural work? **Yes***
- 4) *Are allocated hours adequate and in balance with the curriculum? **See text***
- 5) *Are disciplines integrated and well coordinated and is there a satisfactory balance between species? **Yes for the theoretical part. Limited practicals in bovines and in intensively raised pigs and poultry.***
- 6) *Is each student getting adequate hands-on clinical teaching? **Yes in companion animals and horses, questionable level in ruminants and pigs.***
- 7) *Brief comment on adequacy of facilities, environment, organization, caseload, necropsy case load, staff and support staff? **See text***
- 8) *Are adequate opportunities offered for each student to handle parturitions, dystocias, displaced abomasums, traumatic reticulitis, milk fever, acetoanaemia? **No, sheep and goats***

are the prevailing ruminant models.
9) *Would all students be able to perform an ovaro-hysterectomy on a cat alone? Yes, under supervision of the tutoring personnel.*

4.4.1 Findings

All general clinical subjects listed in the SOPs are covered. With reference to electives, see 4.6 of this report.

In general:

a) Whilst not ideally functional in some parts (as admitted in SER p 190), the VTH is in good state and adequate for the needs of the students and the patient caseload

b) The atmosphere in the VTH is teaching-friendly

c) The caseload is adequate on paper for all species, but more varied experience should be offered for cattle (more individual treatments), pigs and poultry (herd health visits to intensive production farms)

d) The total of necropsies is adequate to borderline, but some species are poorly represented (cattle, equines and cats) (see Chapter 7 in this report)

In view of the increased workload imposed by implementation of the Bologna-adapted “new” curriculum, the staff involved in clinical training at the VTH (the Mobile Clinic included) seems to be barely sufficient (see Chapter 10 in this report).

The most important area for the veterinary students is clinical training. In Caceres, the training is offered at the Faculty or by the arrangement of structured extra mural activities. There is a functioning Veterinary Teaching Hospital (VTH), organized into both a Small and a Large Animal Area, and field services in the form of a 24 hrs emergency for equines and a mobile clinic mainly for production animals. Obligatory training carried out at the VTH in the frame of strictly clinical subjects (115 hours) is organized in groups of 15 students, as per UEx guidelines. However, groups involved in the mobile clinic are smaller (5 students) and more intense and valuable training is offered to students voluntarily applying as VTH interns for 120 hours/year. According to first-hand information received from the students and the clinical staff, a significant proportion of students make use of the latter opportunity during their 3rd, 4th and 5th year. Participation of students in activities involving the mobile clinic, emergency services and rounds for hospitalized animals is voluntary.

4.4.2. Comments

- The case load for small animals and equines has increased considerably in recent years and it seems that adequate opportunities are offered to students to handle the common small animal and equine surgical and medical procedures. Notwithstanding, there is still no emergency service for small animals at the VTH. **This is clearly a potential Category 1 deficiency.**
- The core clinical subjects are taught in the second cycle of the course beginning in the 3rd year and continued in the 4th and the 5th years with a combination of lectures, practicals, supervised and clinical work (SER pp 74-79).
- More clinical training is available to students extramurally, in the form of Estancias. Ad hoc arrangements exist with a large number of hospitals, clinics and individual practitioners in the main clinical fields of the veterinary profession (SER pp 115-120).
- The mobile clinic is operated for approximately 3 days/week during 11 months of the year. One teacher is involved, with the support of two collaborating practitioners.

Students are exposed mainly to public health, herd health and reproduction related activities, and less frequently to medical and surgical procedures on individual patients. Small ruminant farms are the most frequently visited, followed by pig farms. Visits to cattle farms are far less frequent. Approximately 60% of students participate in the mobile clinic.

- The Faculty Teaching Farm has been covered under Animal Production (see 4.3 of this report). Sheep and cattle at the farm are only occasionally utilized for training in Clinical Sciences. There are no “in house” consultations for production animals.
- Neutering operations are performed by the students on cats and dogs supplied one day per week by the local animal charity.
- Students are covered by liability insurance during extramural and intramural (obligatory and voluntary) activities.
- Internships are mostly done by the students during summer holidays and in the fifth year of study.
- The clinical premises are identified in the photographs of the SER (Chapter 6). Data on necropsy caseload and patients’ flow are detailed in the SER (Tables 7.1, 7.6, 7.7, pp 173, 182 183). The teaching and support staff levels are found in table 10.2 on p 96.
- Attendance of students at clinical work is theoretically controlled by the teachers but, according to the staff, controls are not particularly strict and there is lack of coordination between the different clinical departments.
- On paper, time allocated to clinical training is below the threshold of 40% of the entire curriculum, indicated in the SOPs. In the reality, *students get more clinical exposure than officially mentioned*. In particular, the hours of practical clinical work increase substantially during the internships at the VTH, in which most of students participate from the third year on. This system of collaborating students seems to work well, and interviewed students spoke enthusiastically about their experience saying that they do a lot and learn “hands-on” how to perform many practical procedures.
- Control of attendance of students at clinical work is quite weak. Based on interviews, it is the opinion of the team that most students at the VFC receive sufficient hands-on training in small animals, equine and small ruminant clinics, but a readily available system for identifying individual or group deficiencies (i.e. a system to register the exact number of hours of clinical exposure of the students) does not exist.
- Though not operated on a commercial basis, the mobile clinic is reasonably active and of great teaching value, and mechanisms should be developed to assure that all students participate in the farm visits offered, such receiving a common clinical grounding in all species. The enthusiasm and competence of the only teacher and the contracted collaborating practitioners are worth stressing. Activities offered are obviously targeted to the local needs (where extensive forms of raising are largely prevalent), but this implies that participating students are infrequently exposed to “classic” medical and surgical cases (more typical of intensively raised food animals) that elsewhere in Spain and Europe represent the core activity of a large animal practitioner. In addition, no herd health visits to poultry farms are organized.

4.4.3 Suggestions

4.4.3.1 The Faculty must operate an emergency service for small animals. Once implemented, all 5th year students should be obliged to rotate through the service, also during Saturday afternoons and on week-ends.

4.4.3.2 The Faculty is recommended to improve control of attendance at practicals and to coordinate better internships during the study time. Even though exposure to practical work at the VTH seems to be sufficient, there is no systemic approach to controlling this aspect. The Faculty should develop a system to register the exact amount of clinical exposure each student gets, possibly by introducing a students` records book.

4.4.3.3 Not all students participate in the mobile clinic and in any case the hours of mobile clinic work are insufficient, although current activity with one member of teaching staff and a contracted veterinarian is extremely valuable. The Faculty is recommended to reinforce the staff and organize mandatory rotations, so that at least 6-10 days of mobile clinic work is done by each student.

4.4.3.4 All students should be given the opportunity to handle the common food animal surgical and medical procedures and be exposed to the real world of the veterinary profession in this area. Accordingly, the activity of the mobile clinic should be expanded to more "classic" individual (medical and surgical) treatments in cattle and more herd health visits to intensively produced pigs and poultry.

4.4.3.5 Incomplete attendance of all students at the mobile clinic work and insufficient exposure of the students to selected "classic" procedures and experience in the area of food animals may represent a potential Category 1 Deficiency.

4.5 FOOD HYGIENE & TECHNOLOGY AND VETERINARY PUBLIC HEALTH

Questions to be covered:

- 1) *Briefly comment on structure of practical training i.e. practicals, slaughterhouse, processing plants etc. See text*
- 2) *How is food hygiene course linked to animal production, pathology, pharmacology & toxicology incl. residues and withdrawal times and parasitology? Well integrated*
- 3) *Is training mostly internal on-site or external? Both*
- 4) *How is inspection experience in milk, cheese, fish, meat, poultry offered? See text*
- 5) *Do all students have training in the slaughterhouse? Yes*

4.5.1 Findings

The theoretical teaching of food technology, in the fourth year, covers all the foods of animal origin to a good standard. The students have a good foundation of anatomy, physiology and biochemistry on which to build their knowledge. This year 160 students are studying the subject.

Practical training in Food Technology is provided in the Department laboratory and in two pilot establishments also located at the farm.

Most Food Technology practicals are in groups of 14 students. A broad range of topics and competencies are covered including, milk, milk products, fish, eggs and honey.

There is no Food Technology practical training provided off site. However, all students have some exposure to commercial food technology during their food hygiene practical in food processing establishments.

The theoretical teaching of Food Hygiene and Inspection in fifth year is well integrated with the foundation subjects of pathology, microbiology, parasitology, animal production and food technology.

The topics of audit and of risk analysis are covered in theoretical lectures. However, there is no consolidation of this training in seminars or during practical training.

The practical training for the subject Food Hygiene and Inspection covers a similar range of topics as Food Technology and is carried out in well equipped laboratories in groups of up to 16 students who participate enthusiastically.

The students participate in 4 hours of practical training in meat inspection at the ACICAR slaughterhouse in Caceres. The animal welfare and operational standards observed at the slaughterhouse are well below that which is acceptable in any slaughter establishment in the EU. The teaching staff makes good use of these four hours and cover all of the learning objectives that slaughterhouse experience could reasonably be expected to deliver with regard to cattle, sheep and pigs. However, the facilities available for inspection are poor, the bovine heads are inspected on a table rather than suspended, the gastrointestinal tract of cattle was not inspected, and correlation of offals with carcasses was non-existent.

There is no hands on practical experience available to the students for poultry post-mortem inspection either laboratory or commercial. Specimens of poultry post-mortem pathology are very limited.

Through an arrangement with a number of local food processing companies, the students all receive 4 hours of very good quality practical training on food hygiene controls. At the establishment observed, the local official veterinarian was enthusiastic and very competent with regard to his responsibilities.

There are 19 food processing companies which take students as part of their 75 of 150 hours of Estancia. However, a student can elect not to take the option of food control during the extramural training period.

A very good working relationship was observed between all of the teaching staff and students. All students were encouraged to actively participate in practical classes.

The subjects of Food Technology and Food Hygiene and Inspection currently have sufficient teaching staff available.

The teaching staff is enthusiastic in its approach to teaching, to research and to making their knowledge available to support local industry.

A potential for increase in the work load on food hygiene/food technology staff through its increased involvement with the new on site SIPA laboratory service to industry must be closely monitored in order to ensure that the standard of student teaching is not jeopardized.

The key aspects of State Veterinary Medicine are taught throughout the syllabus but in particular in 'Professional Ethics, Legal Medicine and Veterinary Legislation' and 'Preventive Medicine and Health Policy' in the fifth year. The subjects are well taught in theory and practical and cover all of the relevant topics.

The principles of veterinary certification are explained.

Animal welfare legislation is taught and builds on teaching elsewhere in the course. The subjects of 'Animal Biology' and 'Agronomy' participate in EU animal welfare projects.

Theoretical training is provided by veterinarians from the local government veterinary service, on a voluntary, ad hoc basis.

4.5.2 Comments

- The pilot Food Technology processing rooms are well equipped but are not structurally to the standard expected of a modern food establishment. There are no hygienic changing facilities for the students, no environmental control and some surfaces are not finished to the required standard. The result is that students are taught in an environment that does not meet the standards they should have been trained to expect in the industry.
- No practical training in Food Technology takes place outside the Faculty. All students should have the opportunity to see commercial food production.
- The principles of audit and of risk analysis are key to existing public health controls. The current theoretical training needs to be augmented by consolidation through seminars or practicals.
- The standard of operational hygiene and animal welfare observed at the ACICAR slaughterhouse in Caceres is not acceptable. The co-operation of the food hygiene and inspection teachers with this facility tends to undermine both the teaching provided and the integrity of both the veterinarians involved and the Faculty itself. The University Authorities must influence the Competent Authority to improve operational standards or withdraw from the current arrangement.
- Hands on practical experience to the students for poultry post-mortem inspection should be made available.

4.5.3 Suggestions

4.5.3.1 The Food Technology pilot establishments should be refurbished to meet the sanitary standards expected of industry.

4.5.3.2 The practical training in Food Technology should be augmented with a visit to a commercial food processing establishment for all students, for example, ham or cheese production.

4.5.3.3 Theoretical training in the principles of audit and risk analysis should be consolidated through additional seminars or practicals.

4.5.3.4 The standard of operational hygiene and animal welfare observed at the ACICAR slaughterhouse in Caceres is unacceptable. The University Authorities must influence the Competent Authority to improve operational standards or withdraw from the current arrangement. This may result in a requirement, as occurs in other Faculties, for the University to provide a residential slaughterhouse-based practical course some distance from the Faculty. This could include practical poultry post-mortem inspection which currently is not taught.

4.5.3.5 The involvement of food technology and food hygiene staff through the new on site SIPA laboratory service to industry is to be encouraged as it increases the profile of the Faculty within the Province. However, the work load on staff must

be closely monitored in order to ensure that the standard of student teaching is not jeopardized.

4.5.3.6 Theoretical training on aspects of State Veterinary Medicine provided by veterinarians from the local government veterinary service should be regularized by the Faculty so that the training is not so dependent on personal arrangements.

4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

Questions to be covered:

- 1) *List available electives* **SER Tables 4.3 and 4.4**

4.6.1 Findings

Students are required to take 225 hours of elective subjects (45 hours in the 1st cycle and 180 hours in the second cycle). Four topics are offered in the 1st cycle (315 hours overall) and 13 in the second (600 hours) (SER pp 83-83).

420 hours of optional or “free elective” subjects have also to be completed. They can be from any course offered by the UEx and can be pursued in both cycles. A very popular optional subject is extension of equine reproduction (50 hours, 35 of clinical work). Pre-professional practical internships (i.e. vacation training) and participation in a range of activities organized by UEx are also recognised by the Faculty with optional credits.

4.6.2 Comments

- The number of electives is sufficient but tracking can hardly be constructed from them and suggestions came from the students to expand the range to new areas i.e. including the health and management of free-range wildlife and other appealing topics.
- Of the 600 hours offered as second cycle electives, only 29 (4.8%) are in clinical work.

4.6.3 Suggestions

4.6.3.1 The Faculty should consider offering a larger variety of electives and selecting the new topics in view of implementing a future tracking system.

4.6.3.2 More clinical work should be available to students within the second cycle electives offered to them. This could contribute to solving the problems mentioned in chapter 4.4.

5.1 TEACHING METHODOLOGY

Questions to be covered:

- 1) *Brief summary of teaching methodology used.* **See text**
- 2) *Are specific learning objectives set for subject and courses?* **Yes**
- 3) *Do students work from teachers` scripts or textbooks or other information technology form?*

Several and varied sources

- 4) *Is problem-oriented teaching used?* **Yes, to some extent**
- 5) *How are courses and teaching evaluated?* **Well structured evaluation by students and by regional and national organisms**
- 6) *Is teaching mostly theoretical or has practical application a higher rang of importance?* **Both attitudes found**
- 7) *How much real-life clinical exposure opportunity is offered i.e. hands-on work, 24-hour duty, acute cases, case responsibility, cases follow-up, interaction with clients, practice management etc.?* **Adequate during clinical internships**

5.1.1 Findings

Teachers are overall motivated and dedicated to their teaching work and are, in general, open and approachable for students.

Teaching methodology is outlined in SER (pp 110-113). In general, teaching is well balanced between lectures, seminars, practicals and E-learning. Specific learning objectives are clearly stated and published. Competences (disciplinary, professional, academic and transversal) that graduates should reach are also clear and envisaged by a useful document (Libro Blanco) recently elaborated by Deans of several Veterinary Faculties in Spain.

Problem-based teaching is used by some teachers but it does not seem to be widespread. The FVC is in the process of adopting a “new” curriculum in accordance with the European Space for Higher Education, which implies a shift from lecture dominated teaching to more problem oriented teaching methods. The “Virtual Campus” (intranet, based on the Moodle Platform) is an important tool in this process as it provides an efficient platform for communication between teaching staff and students. Self-tests, similar to real examinations (multiple choice) are posted on the Virtual Campus by teachers in many subjects, which allow the students to monitor their study progress. The students can also post their seminar work or solutions to problem or case oriented exercises on the intranet or by use of e-mail. In many subjects this is also part of the evaluation, counting for a percentage (normally 10-20 %) of the total. Not surprisingly, notes and booklets by teachers are more popular than textbooks amongst students.

The majority of students at FVC take a significant amount of additional practical training as “interns”, particularly in clinical and professional disciplines. Intern students are actively involved in the clinical cases and have to write reports and obtain feedback on their work.

Students of the first two years are not exposed to any handling of small or large animals.

At UEx (FVC is no exception) great attention is paid to promote and reward teaching excellence. A specific programme of formation and innovation in learning has recently been developed for the teaching staff. Excellence in teaching is rewarded by salary incentives (at the regional level and national level) based on the DOCENTIA model developed by the Spanish National Agency for Quality Assessment and Accreditation (ANECA). The students' evaluations and the reports of the Dean and of the Heads of Departments are taken into account. Approximately one fourth of the student population participate in the evaluation of teaching by filling a questionnaire at the end of each semester. Though not high, this percentage is deemed representative.

All services related to student welfare and guidance, job placement included, are excellent and the team was impressed by the competence and personality of the Vice-Rector at the Campus.

5.1.2 Comments

- Attention of UEx to promotion and reward of teaching excellence is to be commended. The same applies to the students' welfare-related services.
- There is a good teaching environment at FVC. The teaching quality is also generally good, which is reflected in the student's evaluations, with an average score for most aspects of the teaching and learning environment of around 6.5 on a scale from 0-10, with 10 being excellent (SER pp136-137). Discussions that the visiting team had with students and staff confirm this impression. Access to hands-on training appears to be sufficient in most subjects and the student involvement is good.
- Problem-oriented teaching does not seem to have been implemented systematically but there appears to be a willingness to further develop problem oriented teaching at FVC. This brings about a gradual increase in self-driven (non face to face) learning and independent activity, at the cost of traditional lecture based teaching. It must however be kept in mind that a shift to problem based teaching methodologies normally increases the teaching burden on the staff because efficient PBL based training demands time-consuming access to tutors.
- Early exposure of students to animal handling is desirable to reinforce their original motivation, and lead them more progressively to acquisition of true professional veterinary competences.

5.1.3 Suggestions

5.1.3.1 The team recommends that the Faculty should shift progressively more to problem-based teaching, where conditions (namely the staff number) permit.

5.1.3.2 Action should be taken to involve students of the first years in basic animal handling procedures, with special focus on large animals.

5.2 EXAMINATIONS

Questions to be covered:

- 1) *How often are students examined and when?* **Three periods allowed at UEx (8 weeks overall)**
- 2) *Are there external examiners?* **No**
- 3) *How many times can a student retake?* **Six times**
- 4) *Are examination structured or piecemeal?* **Structured**
- 5) *Is the examination system effective and does it require students to have to sit and pass examinations in basic subjects and foundation subjects before continuing on to the later disciplines.* **The system is questionable**

5.2.1 Findings

With regards to the type of examinations, there seems to be no central policy and each teacher can decide how he/she will examine his/her students. Notwithstanding, different assessment methods were shown during the visits to the Departments. They include MCQs (which are only rarely the single assessment method), projects, practical work, problem

solving and continuous assessment. All are evaluated and contribute to determining the final grade. Some use is made in some subjects by using continuous assessment to formally check on understanding at the end of each lesson/practical.

Based on interviews, evaluation methods seem known and understood by the students with only rare exceptions. Dates of examinations are published well in advance on the Faculty web page.

External examiners are not used.

Students can retake each examination on six occasions.

Since there are no restrictions in the form of “key examinations” that must be passed before sitting for other exams, students can progress to clinical studies without passing the basic subjects, for example they may complete the surgery course before passing the anatomy examination.

5.2.2 Comments

- The overall mix of theoretical to practical assessment is appropriate and the evaluation system seems to be well adapted to verify the competences to be acquired and the objectives to be achieved by the students.
- More oral examinations to develop the communication skill would be desirable.
- The use of external examiners could help having complete examination committees and reinforce the links with representative of the veterinary profession.
- The proportion of students failing in the examinations is quite high in the first cycle and the system should be improved. Amongst possible counteracting measures, a reasonable one would be to put more “pressure” on the students who may retake an exam several times with virtually no time restriction, as per national law.

5.2.3 Suggestions

5.2.3.1 It should be avoided that students may progress in their studies without adequate knowledge of basic subjects.

5.2.3.1 Regular progression of students along the curriculum should be guided to a much larger extent. Introduction of a certain number of “key examinations” in the first cycle that must be passed before sitting further examinations and having access to the second cycle is recommended.

5.2.3.2 A larger use of oral examinations should be promoted.

5.2.3.3 Gradual introduction of external examiners in profession-oriented subjects of the second cycle is recommended.

6. PHYSICAL FACILITIES & EQUIPMENT

6.1 GENERAL ASPECTS

Questions to be covered:

- 1) *Brief description of facilities with observations on age, suitability etc. See text*
- 2) *Adequacy of lecture rooms, laboratory and dissection/necropsy halls? Generally yes, but see text*
- 3) *Vehicle availability to transfer students from site to site or to external establishments? A mobile clinic van*
- 4) *Health and safety items i.e. biohazard warnings, fire extinguishers, eye washes, sluices, chemicals, medicines and dangerous drugs storage? Generally yes, but see text*
- 5) *Adequate facilities for training in food hygiene, carcase handling, access to slaughterhouse, provision of laboratories for microbiology, toxicology, organoleptics and residue work? Generally yes, but see text*
- 6) *Comment on suitability of site in terms of size, area, local animal caseload, access, transport etc. and availability of suitable equipment for teaching and research? See text*

6.1.1 Findings

The Faculty was created in 1983, but significant parts such as the VTH and the Meat and Milk Processing Pilot Plants were built after a first EAEVE visit in 1995. Accordingly, buildings of the Faculty are in a quite good state of repair. The campus is located 4.5 km from the town centre and is well connected to it by public transport.

The core campus at FVC is compact and thus provides easy access to the Departments and teaching facilities. Lecture halls are in the main building as is also the library and administration. The student laboratories are located close to the different Departments and sometimes within or close to research laboratory areas, mostly in Pavilion I for the pre-clinical sciences, except for the student laboratory in Biochemistry which is in Pavilion III.

The students have reasonable access to computers. Wireless internet access is well developed and is free for the students.

The laboratories are well equipped. Renewal of equipment in student laboratories is a constant challenge and seems to be lagging somewhat and in certain instances equipment devoted to research is used for teaching purposes.

Major safety equipment and protocols are regularly monitored by the UEx Service for Prevention of Risks at Work. Waste management is correct.

The infrastructure offered for the pre-clinical training of veterinary students is adequate. However, the dissection theatre for anatomy will have fume-hoods installed in 2010 for work with formalin-fixed specimens, which is necessary to meet minimum safety standards.

The necropsy room, located in the basement of the VTH, is not large but very well equipped. Students have lockers at the end of a corridor, where they change and walk to the necropsy room afterwards. After necropsy they must clean their boots, but nevertheless they must return to the lockers on the corridor. There is no proper disinfection facility.

There is a Teaching Farm easily accessible on foot from the core campus. A description is found in SER, pp 153-154 and 156. Though structurally acceptable, some premises for animals have not been in use for years. As per several interviews, only few teachers utilize the animals housed at the teaching farm for practical training.

Practical training in Food Technology is provided in the Department Laboratory and within two pilot establishments, both located at the farm. The pilot establishment processing rooms are well equipped but are not structurally to the standard expected of a modern food establishment, namely there are no hygienic changing facilities for the students, no environmental control and some surfaces are not finished to the required standard.

The students participate in 4 hours of practical training in meat inspection at the ACICAR slaughterhouse in Caceres. While the structural standard of the facility is satisfactory, the animal welfare and operational standards observed at this slaughterhouse are well below that which is acceptable in any slaughter establishment in the EU.

The Food Technology and Food Hygiene laboratories are well equipped for teaching, research and for offering a commercial service to industry.

All buildings have air conditioning.

Communication passages and walkways have ramps and/or elevating devices for the physically disabled.

Besides the mobile clinic van, the Faculty does not own other vehicles to transport students to external establishments. Private buses are rented to provide this service when necessary.

6.1.2 Comments

- The limited use for practical training of the animals housed (and that could be housed) at the Teaching Farm represents a missed opportunity for students to receive in house early exposure to food animal handling and management. The team found the current situation is difficult to justify.
- In the Food Technology pilot establishments, students are taught in an environment that does not meet the standards they have been taught to expect in the industry.
- The standard of operational hygiene and animal welfare observed at the ACICAR slaughterhouse in Caceres is not acceptable. Generally, an increased awareness related to health, safety and environment for the students as well as teachers in laboratory sessions would be beneficial.
- Practical teaching sessions in the necropsy area are not organized according using desirable hygienic standards.

6.1.3 Suggestions

6.1.3.1 The Faculty should seriously investigate the teaching mission of the Farm, with reference to food animals housing.

6.1.3.2 The Food Technology pilot establishments should be refurbished to meet the sanitary standard expected of industry.

6.1.3.3 The University authorities must influence the Competent Authority to improve operational standards or withdraw from the current arrangement. This may result in a requirement, as occurs in other Faculties, for the University to provide a residential slaughterhouse-based practical course at a distance from the Faculty. This could include practical poultry post-mortem inspection which currently is not taught.

6.2.3.4 The access to necropsy premises ought to be organized in a proper way to prevent certain potential dangerous items from spreading around pathogens and jeopardizing the health of staff and students.

6.2 CLINICAL FACILITIES & ORGANISATION

Questions to be covered:

- 1) *Make brief overview of facilities indicating departmental responsibilities. See text*
- 2) *Are there diagnostic laboratory facilities and do they carry out external work? Yes, adequate level*
- 3) *Comment on clinical facilities and organization of clinical services. Good in general, but see text.*
- 4) *Is there a 24h emergency care service, adequate hospitalization/treatment facilities, isolation facilities and/or mobile clinic? There is 24 emergency for horses. In general, there are adequate hospitalization and treatment facilities. Mobile clinic is operative only three days per week. No proper isolation facilities for large animals and no isolation facilities for companion animals.*
- 5) *Are there possibilities for additional animal materials from stables, farms, kennels, game reserves etc? Yes, mainly by reinforcing the mobile clinic work.*

6.2.1 Findings

Clinical training activities are carried out in the Surgery Area and the VTH.

Besides staff offices and two classrooms, the Surgical Area comprises three rooms for clinical practice (one for large and two for companion animals), three rooms for surgery teaching, a room for animal preparation, a small hospitalization room for companion animals, rooms for laboratory work, a diagnostic imaging area and a sterilization room, with all necessary equipment.

The VTH is 100% owned by UEx and is divided into three floors. The basement is mainly dedicated to large animal consultation, and includes 18 boxes for horses communicating with an exercise area. A stallion station is operated here during the breeding season. Three rooms with a total of 21 cages + 4 boxes for hospitalization of companion animals are available. The basement is also place of the necropsy room and a cooling room for carcasses and organs. The reception, where files of the patients are stored, is located on the ground floor. The consultation rooms for small animals and the clinical diagnostic laboratories for most clinical subjects are also found here. In the first floor, there are microscopy rooms, offices and subsidiary libraries of several teaching units.

Normal operating hours in the Small Animal section of the VTH are between 10.00 and 14.00 and 10.00 and 17.00 according to services. The Large Animal sections of the VTH operate between 10.00 and 17.00, mainly from Monday to Friday. All clinics are closed during August. A 24 hrs intensive care service for hospitalized small animals and equines is operating.

In addition, the Faculty operates a Mobile Clinic in the form of van with 7 seats. This mobile clinic moves around three times a week from 8.00 till 15.00. The single teacher involved is usually accompanied by a contracted veterinarian and 3-5 students.

Functioning of the clinical services at the VTH is supported by an Anaesthesiology Service, equipped with five devices for gas anaesthesia and their corresponding monitoring systems, and a Diagnostic Imaging Service, equipped with an MRI, a few new ultrasound machines, two Doppler colour scanners, a radiographic electronic visualizing system, etc.

There is a pharmacy where all necessary medicines for the treatment of hospitalized patients are available. Medicines are seldom delivered to clients. After a diagnosis, most clients get a prescription and then can obtain the medicine from a local practitioner or a local pharmacy. Record keeping of incoming and outgoing medicines in the hospital pharmacy is adequate.

In the small animal section there no emergency service provided, whereas in the equine section one veterinarian is on call in the case of emergencies.

The team was shown three boxes on the VTH basement that, based on interview, could be prepared for isolation purposes of large animal patients.

The use of the working and protective clothes is obligatory in all rooms and laboratories. Working clothes for necropsy room are washed in the VTH. Boots must be cleaned before leaving the necropsy room and are the property of the students.

Another UEx service is the recently opened Laboratory Animal Facility, located near the Faculty. The facility has specific pathogen free rooms and laboratories for work with experimental animals. For bio-security reasons, access is strictly controlled.

6.2.2 Comments

- In the Surgery Area and the VTH there is enough place and equipment to carry out all clinical sessions. Both the small animal and the equine part have ready access to diagnostic imaging service, and are also in close proximity to the shared reception area and the diagnostic laboratories. The MRI has been an excellent investment and it will contribute to reinforce the role of the VTH as a referral centre for practitioners operating in and outside Extremadura.
- Comment: We would like to explain this information in order to give a clearer idea about this point. The number of new students entering the first course of veterinary studies is fixed at 100 students, and no additional students are admitted at this point in this level. However, there is a number of additional students joining the Faculty that might enter the second course and onwards. This number comprises of Erasmus students and those derivatives from other Universities that transfer to ours.

Some defects were observed:

- In the hospital premises, there are no proper isolation units. Boxes that can be prepared to isolate large animals lack separate access of personnel and sufficient distance from the remaining boxes, and there are no isolation places for companion animals. **This is a potential Category 1 deficiency.**
- There is no organized emergency service for small animals. **This is a potential Category 1 deficiency.**
- Small animal patients come into surgical premises from the outside through the preparation room and then into the surgical room. The way from the surgical room to the hospitalization room leads through the preparation room, which means that clean and dirty pathways are not divided in a proper way.
- The design of several cages for hospitalization of small animal patients does not allow adequate cleaning and disinfection. Urine and fluids can flow out of the cages into the central pathway where staff and students walk. The doors of the cages are made of iron which is not resistant to corrosion. There is no high pressure hot water cleaning apparatus available.
- Consultation rooms are not connected with the reception and it is thus necessary that each animal owner brings the registration paper to the consultation room which is later returned to the reception to be entered into the computer.
- To offer the students more varied caseload in food animals (see above, Suggestion 4.4.3.4), the activity time of the mobile clinic should be expanded. The single teacher involved in the mobile clinic work cannot dedicate more time than he actually does.

6.2.3 Suggestions

6.2.3.1 The Faculty must organize an emergency service for companion animals.

6.2.3.2 The Faculty must build or organize proper isolation facilities for small and large animals, which must be accessible only from dedicated entries, need a sanitary entry closet and should not be connected to the central air-conditioning system.

6.2.3.3 In the surgical part of the hospital, it is necessary to reorganize and divide clean and dirty pathways, so that hospitalization of patients does not represent a threat.

6.2.3.4 The hospitalization units for dogs and cats should be refurbished and possibly merged into a single unit. Each cage should have its own evacuation system for fluids and cleaning. All doors must be made from material which can be cleaned with hot water and disinfectants.

6.2.3.5 The consultation rooms in the veterinary hospital should be equipped with computer terminals linked to the central patient registrations system.

6.2.3.6 Additional staff is needed to increase the activity time of the mobile clinic and offer more varied caseload to students.

7. ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Findings

Questions to be covered:

- a) *What sources are available which provide access to animal material? **Various sources (see text).***
- b) *Is there a working farm where students can do practical work in the animal production subjects? **Yes but the farm seems currently of limited teaching value.***
- c) *Ratios students graduating : clinical caseload pets / livestock / necropsies **Ratio students to pets is acceptable, there is low exposure to individual clinical cases of cattle, denominator for companion animal necropsies is below standard.***
- d) *Adequate fresh chilled or prepared material for anatomy? **Probably***
- e) *Adequate necropsy material and is it balanced? **Low number of companion animals, with no cats. Inbalanced food animal necropsies (equines and cattle almost absent).***
- f) *Are adequate clinical materials available to enable staff to maintain or develop their skills and is there a reasonable balance between small animal and large animal cases? **Enough small animals and horses, enough small ruminants, mainly in mobile clinic, and very limited cattle.***
- g) *Are the students given adequate exposure to slaughtering of various species as well as to materials for supporting food hygiene training. **Slaughter of some species e.g. poultry is insufficient.***

7.1 Findings

The SER was poorly informative about animals and teaching material of animal origin used in anatomy.

In pathology, cadavers come from the VTH, the Faculty Farm, private clinics, large farms and game reserves. On average, 65 large animals are necropsied per year. The number of small animals is approximately 40 per year. The average number of rabbits and poultry is around 35 (SER pp 173-174). Necropsies of equines and cats are extremely rare, those of cattle infrequent. In case of shortage of cadavers, an electronic board in the necropsy room permits, to some extent, the active participation of students which cannot be hands-on around the table.

At the Faculty Farm, there are at present approximately 50 sheep and 8 “Retinta” cattle. Limited handling and use of these local cattle by students occurs due to their aggressive temperament. The Faculty has also agreements with farms and companies to guarantee the students a tutored contact with food animals in a production perspective (SER pp 175-176).

The VTH has an average patient flow of over 3,000 small animals and approximately 580 horses per year. The last number also includes about 200 mares, which have access to during the mating season (the hospital operates a stallion station according to an arrangement with the Spanish army, comprising on average 10 to 12 stallions). Ruminants are very rarely presented at the hospital.

Once a week, the hospital receive patients from the local shelter, where neutering is performed. Approximately four animals per week undergo this surgical procedure, enabling every student to participate in this “hands-on” training.

As Extremadura is a sort of icon of extensive breeding of food animals, students have a possibility to see numerous cases when participating in the activity of the mobile clinic. Mostly herd health visits on small ruminants and pigs are offered, and less often the “classic” medical and clinical cases that most practitioners in Europe have to deal with.

For food hygiene, students carry out practical work in slaughterhouses, food-processing industries and at the Faculty farm

7.2 Comments

- In pathology, even though ratio R18 (0.67) falls in the acceptable range, there seems to be limited variety of large animals necropsied, with basically no equines and very few cattle. Ratio R20 (0.72) is below standard (expected range of values: 1.26-0.89), and cats are surprisingly absent.
- In animal production, despite the limited value for teaching purposes of animals kept at the Faculty farm, students have the opportunity to visit nearly all types of farming processes in the countryside.
- The number of companion animals seen in the VTH fits the lower value of the expected range, but a variety of cases is offered and the recent investment in high quality diagnostic equipment will rapidly increase the referral caseload and, in general, reinforce the prestige of the VTH amongst companion animal practitioners.
- The number of equines seen at the VTH is more than adequate and the Faculty must be complimented for the result and for the trend in the last years. Perhaps, reaching a better equilibrium between reproductive (currently the majority), medical and surgical cases could be an objective for the future.
- The number of food animal patients seen at the Faculty is clearly very limited and there is almost no hospitalization but, since a mobile clinic was operated, this service makes a great compensatory work (see above standard ratios in SER, p 188) and the single teacher involved must be complimented for this. Notwithstanding, the average student at the FVC is still exposed to only a limited number of true individual cases

(the small ruminants excluded), with almost no bovine patients and insufficient to zero experience in intensively reared food animals (namely dairy cattle, pigs and poultry).

7.3 Suggestions

7.3.1 **The flow of canine and (to a larger extent) feline cadavers for dissection training in pathology should be increased to the desired standard, as well as the number of necropsied horses and cattle. Since reluctance of pet owners to permit a necropsy is mentioned as the main cause of the insufficient flow (SER p 191), special agreements should be reached with local shelters and local clinics involved in “Estancias”.**

7.3.2. **To assure that students at FVC are prepared to successfully face a European professional scenery, the Faculty ought to provide: a) cattle for the teaching of reproductive problems, because small ruminants are adequate substitution for large ruminants, but not in the reproduction and obstetrics; b) more hands-on experience in intensively reared food animals (namely dairy cattle, pigs and poultry). Accordingly, the VTH should expand the activity of the mobile clinic by contracting more private practitioners and by offering a 24 hour service where students work in a permanent rotation system.**

8. LIBRARY & LEARNING RESOURCES

Questions to be covered:

- 1) *Brief overview of library facilities* **Adequate**
- 2) *Number of journals subscribed to and on-line services?* **Very broad range**
- 3) *Exchanges with other university libraries?* **Yes**
- 4) *Central library indexing?* **Yes**
- 5) *Departmental libraries, accessible easily to students?* **Yes**
- 6) *Are the opening hours student-friendly and are there adequate staff?* **Yes definitely**
- 7) *Do students use the library well and are they trained to use it?* **Yes**

8.1 Findings

The library system is very extensive and is comprised of:

The **Central University Library** on the Caceres Campus (SER pp195-199) caters for all the Faculties and Centres on the Caceres Campus and it contains a small selection of veterinary textbooks etc.

The **Main Library of the Veterinary Faculty** (SER pp199-201) is specialized in veterinary textbooks and journals and offers adequate study facilities for the students. The system of accessing and borrowing books is efficient.

Each Department or Working Unit has its own **Subsidiary Library** of the Main Library of the Veterinary Faculty (SER p203), but all books are acquired for these by the main library and are all catalogued by both the Main Library of the Veterinary Faculty and the Central University Library. The books in all these subsidiary libraries are available to students, researchers and teaching staff alike.

The **Information Technology Service** is comprised of:

A **WIFI System** throughout the campus, which is accessible by staff and students alike.

The **Audio-Visual Service** (SER p203), which offers slides, films, videos, CDs and DVDs

The **Computer Service** (SER p204) has 6 rooms available with 69 up-to-date PCs. The largest room contains 26 PCs and is available for student use every weekday morning. There is also a “departmental room” with 20 PCs uniquely for teaching purposes. In addition, there are 4 small rooms, 3 of them equipped with 5 PCs and the fourth with 8 PCs. There are training programmes for computer use.

The **Virtual Campus** (SER pp204-207) of the University, which uses *Moodle software and concept*, is a superlative model which should be applied to Faculties across Europe. It primarily covers **Teletraining** (SER pp205-206), **Self-Learning** (SER p206), which involves e-learning in particular and **Classroom Teaching** (SER pp206-207). In addition, there is a facility for **Collaborative Work** between different teams in the University.

8.2 Comments

- The library facilities as a whole are excellent and access to hard copies, e-books, e-journals etc. is simple and complete, with subscriptions to the currently important databases and other university libraries. (SER pp207-208).
- Opening hours are student friendly and during examination periods the weekends are included.
- The provision of work spaces is adequate, but the personnel at the Veterinary Faculty Library are barely adequate at peak periods.

8.3 Suggestions

8.3.1 It is suggested that in order to cater for peak periods the number of reading positions should be increased by at least 50%.

8.3.2 The number of staff at the Veterinary Faculty Library should be reviewed with the objective of adding a part-time position during known peak periods.

9. ADMISSION & ENROLMENT

Questions to be covered:

- 1) *Is a selection procedure in operation and is it legal? Yes, definitely*
- 2) *Is there a “numerous clauses” and what are the criteria used? Yes, available facilities and staff + policy at the University level*
- 3) *What is the link between budget and the number of students? Not obvious*
- 4) *Does the intake take account of the national need for veterinarians? Not obviously*
- 5) *Does the admission procedure result in students who have the aptitude, knowledge base and motivation for veterinary studies? Yes in general, but not completely*
- 6) *Does the admission procedure take into account the limitations of the resources available? Yes*
- 7) *Is there a high drop-out rate and what are the reasons? Several putative reasons (see text)*
- 8) *Does the admission process result in access inequalities? No*

9.1 Findings

Admission requirements for entering the Veterinary Faculty are established by the Ministry of Education. To enrol, the Baccalaureate in life and health sciences and passing the University Access Test (PAU) are required. A relatively high threshold mark, mirroring both

performances, is adopted (7.38 on a 0-10 scale in 2007/2008). PAU is offered twice a year, in June and September. There is a “prioritisation” system for registering candidates that passed their PAU test in June or previous years, over those who succeed in the PAU test in the September.

Admission is regulated by a *numerus clausus* system. In the last five academic years, the admissible number for the first year has been fixed at 100 candidates. However, there is a number of additional students joining the Faculty that might enter the second course and onwards. This number, currently 25, comprises Erasmus students and those undergraduates from other Universities that transfer to the FVMC.

The *numerus clausus* is proposed every year by the Faculty to the University, and finally decided by the Ministry of Education. The number takes into account the available facilities and staff, but also – and obviously - budgetary policies at the University level. Based on feedback by the practitioners met during the visit, the Veterinary Chambers of Caceres and Badajoz, the two provinces of Extremadura, have little if any voice in suggesting the number. Actually, the number of students applying for enrolment largely exceeds the *numerus clausus* (usually >6 fold).

Veterinary Studies are the first choice for a large majority of admitted students (roughly 90% according to SER p. 221). All students have to pay a fee (€ 1150 per year on average). But there are financial aids or free tuition for students with outstanding marks, students from large families, students that are orphan children of civil servants and others.

Based on SER Table 9.5 p. 220, the average duration of studies can be estimated as 7 years. The drop-out rate is not explicitly indicated in the SER, however the average number of graduates is 86 (SER Table 9.4 Page 220) and the average number of students enrolled is 120 (SER Table 9.2 Page 219) so the correct drop-out rate is 28.3%.

The Faculty has Socrates/Erasmus agreements with 17 European Faculties in seven countries, 14-15 students go abroad and the Faculty receives 12-36 (!) foreign students annually. Additionally, the Faculty has SICUA agreements with other nine Spanish Faculties (7 outgoing and 7 incoming students/year in the last academic year) and an exchange programme with two Latin American Faculties. The list of exchange universities is in the SER p. 218.

9.2 Comments

- Current selection procedure is very competitive, but also transparent and homogeneous at the national level. Notwithstanding, the significant drop-out rate of the student suggests that the procedure (namely the PAU, which has no veterinary focus) is only partially efficient in selecting applicants for long-term motivation, learning attitude and constancy in veterinary studies.
- The number of enrolled students is higher (though not excessively so) than the local Veterinary Chambers would desire, but figures were presented showing that a very high percentage of graduates actually finds a job as veterinarians (in Extremadura, other regions in Spain or abroad) within the reasonable time interval of 6 months. The Faculty is considering that enrolling 80 new students/year would fit even better the available facilities and staff (SER p. 219), and students definitely shared this opinion during the meeting with the team.
- Students and teaching staff offered the team opinions on the apparent causes of the relatively long duration of studies. Amongst them are: the very dense schedule of the students, that would lack time for the necessary self-directed learning; working in

parallel with studying, a need and sometimes a choice by approximately one fifth of the students; the time students deliberately invest in the appreciated and useful internships; individual problems; the lack of sufficient “pressure” on the students, that may retake an examination several times with virtually no time restriction; insufficient knowledge of Physics and Mathematics by those students which were not exposed to these basic subjects during the secondary school (in Spain, only Biology and Chemistry are compulsory). Some of these causes may be counteracted if current duration of studies is perceived as a problem.

- A range of opportunities is offered to the students wishing to spend training periods in other Faculties in Spain or abroad.

9.3 Suggestions

9.3.1 In the current phase in which a new demanding curriculum is being implemented, student intake should be adapted as far as possible to the available facilities and staff. Accordingly, it is recommended not to increase, and possibly diminish to 80, the number of students admitted per year.

9.3.2 It is suggested that a reduction of the numbers of students who have a high average duration of studies should be achieved by better investigation and understanding of the underlying causes, which in turn should be counteracted.

9.3.3 Although the admission rules are regulated at the national level and it is not easy for the Faculty to select the most qualified students, ideally the admission procedure should be modified to select students better to reduce the drop-out rate.

10. ACADEMIC & SUPPORT STAFF

Questions to be covered:

- 1) *Ratio of teaching staff : students is? 1:6.39*
- 2) *Ratio of teaching staff to support staff is ? 1:1.18*
- 3) *How and by whom are all staff appointments and staffing levels decided? See text*
- 4) *Percentage of staff who are veterinarians? About two thirds*
- 5) *Comment on staff ratios in relation to the SOP. See text*
- 6) *Comment on staff shortage or disproportion. See text*
- 7) *Can staff move within the establishment? Question not explored during the visit*
- 8) *Are posts which fall vacant automatically filled or must they be fought for? Fought for*
- 9) *Are certain staff able to be flexibly deployed i.e. for clinical services etc.? Yes*
- 10) *Does the establishment encourage staff to acquire additional skills and training? See text*
- 11) *How free is the establishment to decide staffing levels and benefits? Little freedom*

10.1 Findings

There are 10 Departments that have teaching assignments. The staff positions in each Department are shown in Table 10.3 of the SER (p 226). In addition, there are posts regarding support staff from the Faculty centralized services (20), the Faculty farm (2) and the VTH (2).

The VTH has a core staff of 10 contracted veterinarians charged to its budget. In addition, 5 professors from other Departments do clinical work in the VTH (SER p 184). A single teacher is involved in clinical work with the mobile clinic. Two contracted veterinarians, paid by a private enterprise, are the support staff of the mobile clinic.

The ratio of teaching staff: students is 1: 6.39. The ratio of teaching staff to support staff is 1: 1.18.

As is usual in Spain, staff appointments and staffing levels are largely decided at University level, and the Faculty has little control over who is hired.

The percentage of veterinarians in the teaching staff is relatively low compared with other establishments in Europe (65.4%), however contracted veterinarians operating at VTH (support staff on paper) strengthen the level of veterinary competences available to students in the FVC.

During the official meeting with the team, the support staff stressed the favourable atmosphere at the faculty and the good relationships with the teachers and students. They recognized that UEx offers a good range of formation courses on general issues, and that more targeted events are not easy to spot and organize at the central level (which is the competent one in UEx) due to the various and fragmented typologies of work in the Departments. The feeling of tenured support staff that greater involvement in research programmes carried out in the Departments could represent the obvious way to developing new technical skills was clearly expressed.

10.2 Comments:

- The ratio of teaching staff to support staff is in the established range.
- While the ratio of teaching staff to students is satisfactory, academic staff involved in clinical training at VTH (5 units, no Full Professor amongst them) is clearly insufficient, and it is the merit of those few motivated teachers and the contracted veterinarians and the PhD students that the quality of clinical training at VTH is up to standard and appreciated by students. However, the caseload cannot be expanded anymore under these circumstances, and the same applies to the required 24 hrs emergencies for companion animals. It will not be acceptable in the future that newly appointed full-time teachers may refuse to operate in the VTH. Presence of additional academic (and possibly technical staff) in the VTH will soon become a must with the implementation of the “new” curriculum. Shortage of academic staff is also evident in the mobile clinic.
- The team supports the sentiment of the tenured technicians that see research activities carried out in the Departments as the most obvious opportunity to develop their skills.

10.3 Suggestions

10.3.1 To cope with EAEVE requirements and the “new” curriculum being implemented, academic staff involvement in clinical training at the VTH should be increased. Evidence shows that appointing new teachers - possibly holding a European Diploma - would be the preferred strategy.

10.3.2 One additional academic post should be assigned urgently to expand the activity of the mobile clinic.

10.3.3 If relevant, tenured support staff participation in research activities should be increased as a means of refreshing or developing their technical skill. Research leaders should encourage and supervise for greater interaction between motivated tenured staff and the contracted staff.

11. CONTINUING EDUCATION

Questions to be covered:

- 1) *Is Continuing Professional Education (CPE) in the objectives? **Yes***
- 2) *Is a CPE programme in place? **Not a structured one***
- 3) *Who is the CPE programme aimed at (practitioners, state veterinarians, specialists, production animal/herd health veterinarians, small animal veterinarians)? **Mostly at practitioners***
- 4) *How is the CPE structured? **Not applicable (see above question 2)***

11.1 Findings

The Faculty organises a limited number of continuing education events (5-6 per year), mostly depending on the initiative of Departments and individuals. To date, no specialisation courses are offered.

11.2 Comments

- Continuing education is not a priority in the Faculty, therefore it lacks systematic organisation.
- The Faculty receives no proper impulses from the inside (University) and the outside (profession) to organise continuing education courses.

11.3 Suggestions

11.3.1 As it is essential for the Faculty to offer a Continuing Education Programme for veterinarians, a dedicated committee should be established.

11.3.2 Expanding the virtual campus to topics for Continuing Education would be beneficial for every practitioner.

12. POSTGRADUATE EDUCATION

Questions to be covered:

- 1) *Outline the types and structure of post graduate research training. **See text***
- 2) *How many interns and residents are enrolled? **Eight in total***
- 3) *Does a Masters or PhD programme exist and what structured training is given? **See text***
- 4) *Are there minimum publication requirements for postgraduates? **Yes***

12.1 Findings

Diplomates of two European Colleges (Veterinary Surgery and Animal Reproduction) are present amongst teachers in the VTH. Accordingly, residency programmes are available in situ. Most contracted veterinarians at VTH are residents or are applying for residences in European Colleges.

The Faculty offers two master degrees, in Meat Science and Technology and in Research in Health Science (35 first year students overall). A new Master in Management of Outdoor Livestock will start soon.

The Faculty organizes 3 PhD-programmes (2 yrs) and provides several courses for PhD-programmes organized by other Faculties. A total of 58 full time PhD-students are presently enrolled (SER p. 253). The total number of finalized PhDs during the last 4 years is 28, which gives an annual production of 7.

12.2 Comments

- No major comments.

12.3 Suggestions

No major suggestions.

13. RESEARCH

Questions to be covered:

- 1) *Briefly outline the research commitment and concepts. See text*
- 2) *Is there sufficient use of existing research to introduce undergraduates to the concepts? Yes*
- 3) *Is the research effort cohesive or fragmented? Probably more fragmented than cohesive*
- 4) *Is there a clear research strategy within the establishment? Not explored*

13.1 Findings

The SER does not contain much information about the general research activity in the Faculty and in the different Departments and their subjects. A clear research strategy within the Faculty is also not communicated in the SER. However interviews and publication lists indicate relevant research of local to international breadth. The level of recent publications is good to excellent in most Departments, including the profession-oriented ones; this suggests that research-based training is not an abstraction and that the teaching staff is committed to research. The team's impression is that the research effort is more fragmented than cohesive but, during the visit, only limited time could be devoted to analyzing this aspect and the existence of a clear research strategy in the Faculty.

A significant proportion of students are exposed to some research activities (with varying degrees of intensity according to the selected department) during voluntary internship periods. Research grants for undergraduate students in their final year (€ 2.558 to take part in 450 hrs of research activities) are also available following regulated competition. Eleven grants were assigned during the last academic year (SER p. 264). Moreover, students can optionally prepare and discuss a Graduating Dissertation (Tesina de Licenciatura) dealing with an original unpublished experiment. Though no credits are assigned for this research activity, 17 dissertations (by roughly one fifth of the students graduating annually) were completed in the last academic year.

13.2 Comments

- Involvement of undergraduate students in research is an important element of University education but, in several establishments throughout Europe, the heavy work load does not favour this experience and students in the last years would rather attend clinical practice than research activities. The team was pleased to note that, in spite of the lack of acknowledgement of research activities in the form of credits, a significant proportion of students at the FVC is actually interested in research and that the teaching staff is attuned to receiving and encouraging them.

13.3 Suggestions

- 13.3.1 More students would be motivated to participate in research tasks or even prepare a Graduating Dissertation if these activities were recognized by the Faculty as elective/optional credits and the Team would recommend urgent consideration of this aspect.**

EXECUTIVE SUMMARY

The team was received in a professional and friendly atmosphere.

Several positive aspects emerged during the visit, which consistently fit the SER content. Amongst the most relevant ones are:

- the good relationship between the students and the teaching and support staff;
- the dynamic Vice-Rectorate at the Campus;
- the student-friendly main veterinary library;
- the Virtual Campus, a superlative model which should be applied to Faculties across Europe;
- the commitment of the whole staff and young collaborators at the VTH, permitting to overcome the difficulties related to the shortage of support staff and teaching dedicated budget, in order to actually expose the students to an adequate caseload of equines and companion animals;
- the widespread use of innovative teaching methods;
- the awareness by several colleagues that good teaching is the priority, and that teaching the student how to learn is effective teaching strategy;
- the quality and quantity of applied research carried out by several units, providing opportunities - for a remarkable proportion of students - to get in touch “hands-on” with advanced research activities and concepts.

Due to the flexible model of organization of practical training activities and the relatively large size of the students' groups involved in them – which, as we were explained, had to take into account general guidelines by the University of Extremadura - much time was spent by the team to find an answer to the following general question: “are all students at FVC exposed to practical training satisfying a minimum common denominator?”. It was not an easy task, and information collected from different sources had to be carefully analysed and compared. Finally, the team came unanimously to the conclusion that, in Caceres, “little is planned, little is compulsory, but things go in an acceptable direction anyway”. In fact, it is during the “internships” and the extramural obligatory work (Estancias) rather than the scheduled rotations of groups that students receive the desirable hands-on training, but this opportunity is used by them with remarkable maturity, sometimes to the detriment of the time necessary to complete the career in the expected number of years. Obviously, the above conclusion does not imply that a better organization of practical training would not be desirable, and the ongoing implementation of a new Bologna-adapted must take it into account as an absolute priority. This is even more important in a Faculty, as Caceres, which has already advanced far in the process of quality assurance.

Some deficiencies were found. Two of them are structural ones and the SER had already mentioned both. The first deficiency is the lack of isolation facilities and the second is the

lack of an emergency service for companion animals. We were given reasonable explanation for both deficiencies, namely budget and staff shortage, but EAEVE guidelines are clear. There is no question that these defects could be reasonably rapidly solved but currently constitute **two potential Category 1 deficiencies**. Once implemented, all 5th year students should be obliged to rotate through the emergency service, also during Saturday afternoons and on week-ends.

Besides these two points, the team registered that only limited time is devoted to intensive forms of production animal raising, namely with regard to dairy cattle, swine and poultry. Extensive forms of raising largely prevail in Extremadura and the team was aware that all faculties are used to orient their practical training towards those species and raising typologies which are best represented locally, which is positive in general. Nevertheless, EAEVE Guidelines, that are based on EU Directive 2005/36, mention that the instruction provided must include basic clinical training across all common domestic species, and amongst them the food-producing animals of the bovine, porcine and avian species which, throughout most of Europe, are raised intensively or semi-intensively, and derive from this status the core of their pathologies. The team strongly recommend that appropriate solutions to resolve this shortage of practical training be found urgently, since the underlying philosophy of an European approval is assuring the stakeholders that all graduates in all veterinary establishments enjoy a common minimum standard enabling them to perform all their duties, as stated in the fore mentioned EU Directive 2005/36. During the meeting with students, one of the most stimulating and participative ones that the team members remember, the desire to work in production animals or in mixed practices, as well as the desire to work abroad or elsewhere in Spain were clearly registered, and these students deserve to be fully competitive in the continental arena. Besides this, not all students at FVC participate in the mobile clinic and, in any case, the hours of mobile clinic work should be increased. The shortage of practical training in intensively raised production animals, coupled with incomplete attendance of all students at the mobile clinic work, **may be a potential Category 1 deficiency**. However, the deficiency could also be ranked differently taking into account the adequacy of the theoretical training and the substantial involvement of sheep and goats (instead of cattle) as ruminant models in practical training.

Other minor organization and structural weaknesses were found, which are commented and discussed in the report. Those dealing with hygienic standards and animal welfare deserve special attention.

The team addressed the Rector on the concern of colleagues at FVC that the existing shortage of support staff may in the short-term – namely when the demanding new curriculum will be fully implemented - adversely affect the quality of practical teaching and the delivery of services to students, veterinarians and the general public.

Finally, the team strongly support the opinion of the Faculty (and of the Spanish Deans in general) that a five-and-a-half-year curriculum comprising 300 ECTS credits + 30 additional ECTS credits for practical fieldwork would be a strategy favouring more progressive and equilibrated acquisition of basic and professional knowledge by the students, in view of their better integration into the labour market.

ECOVE decision: NON-APPROVAL

- 1) Lack of isolation facilities for small animals**
- 2) Lack of a 24 hour emergency service for small animals**
- 3) Insufficient training in production animals (pigs, cattle, poultry)**

Annex 1 Indicators

Ratio	Numerator/Denominator raw	1/Denominator	Established range of denominators	Notes
R1	107.63/688	1/6.39	8.85-10.42	
R2	104/688	1/6.61	8.75/12.54	
R3	70.31/688	1/9.78	10.62-12.62	
R4	70.31/86	1/1.22	4.91-7.21	
R5	107.63/128	1/1.18	0.53-2.20	
R6	1851/1448	1/0.78	0.51-0.36	
R7	468/980	1/2.09	1.88-2.21	
R8	165/3470	1/21.03	0.51-7.87	Misinterpreted but no problem
R9	420/3470	1/8.26	Still open	
R10	420/8	1/0.02	Still open	
R11	83/95	1/1.14	2.47-1.73	Below range
R12	83/1383	1/16.6	0.51-7.87	
R13	83/9	1/0.11	0.20-0.09	
R14	83/510	1/6.14	1.78-0.92	
R15	83/66	1/0.79	0.58-0.37	
R16	83/3148	1/37.92	48.74-37.94	Low side of range
R17				

R18	83/56	1/0.67	0.75-0.46	
R19	83/29	1/0.35	0.26-0.12	
R20	83/60	1/0.72	1.26-0.89	Below range

Annex 2: Listing of Potential Category 1 Deficiencies

(Note: Each Deficiency should be listed under the relevant paragraph below of the Directive 2005/36)

1) The training of veterinary surgeons shall comprise a total of at least five years of full-time theoretical and practical study at a university or at a higher institute providing training recognised as being of an equivalent level, or under the supervision of a university, covering at least the study programme referred to in Annex V, point 5.4.1. The content listed in Annex V, point 5.4.1 may be amended in accordance with the procedure referred to in Article 58(2) with a view to adapting it to scientific and technical progress. Such updates may not entail, for any Member State, any amendment of its existing legislative principles relating to the structure of professions as regards training and conditions of access by natural persons.

2) Admission to veterinary training shall be contingent upon possession of a diploma or certificate entitling the holder to enter, for the studies in question, university establishments or institutes of higher education recognised by a Member State to be of an equivalent level for the purpose of the relevant study.

3) Training as a veterinary surgeon shall provide an assurance that the person in question has acquired the following knowledge and skills:

a) Adequate knowledge of the sciences on which the activities of the veterinary surgeon are based;

b) Adequate knowledge of the structure and functions of healthy animals, of their husbandry, reproduction and hygiene in general, as well as their feeding, including the technology involved in the manufacture and preservation of foods corresponding to their needs;

c) Adequate knowledge of the behaviour and protection of animals;

d) Adequate knowledge of the causes, nature, course, effects, diagnosis and treatment of the diseases of animals, whether considered individually or in groups, including a special knowledge of the diseases which may be transmitted to humans;

- There are no isolation facilities for Small Animals and those boxes available for Large Animal isolation do not meet the norms for an isolation facility.

e) Adequate knowledge of preventive medicine;

f) Adequate knowledge of the hygiene and technology involved in the production, manufacture and putting into circulation of animal foodstuffs or foodstuffs of animal origin intended for human consumption;

g) Adequate knowledge of the laws, regulations and administrative provisions relating to the subjects listed above;

h) Adequate clinical and other practical experience under appropriate supervision.

- There is no emergency service for small animals.
- Since there is poor monitoring of attendance, it is clearly possible that many students do not have adequate exposure to clinical work involving classical procedures in food animals.

Annex 3 Student`s Report

ORGANISATION

Question: Is the structure organized in a student friendly manner?

The Faculty of Veterinary Medicine in Cáceres is relatively small (roughly 700 students). This feature is important for students, since it makes the Faculty more familiar with a hospitable atmosphere. The structure is quite new and it is well organized and it is designed for convenience and ease of movement. Many of the classrooms are concentrated in the main building, where also the library, the secretariat and the computer room are located. One of the negative aspects of the structural organization of the Faculty is the position of the farm, away from the main building and consequently not so easy for students to reach.

ADMISSION AND ENROLMENT

Question : Are the requirements and the application thereof fair?

Every year, approximately 120 new students are admitted. The entrance examination is a very important decision point for a student. After the secondary school (when they are about 16 years old), students can select one of four study options: arts, life and health sciences, humanities and social science, technology. This kind of study lasts for 2 years (16-18 years of age) and is called Baccalaureate. It is obligatory for students who want to continue their studies. A student who wants to become a veterinarian must choose the "life and health sciences" group of subjects, and in particular a sub-option called "health science". In order to enter the Faculty of Veterinary Medicine, students have to complete the Baccalaureate and must pass a test called PAU. This test is offered twice a year and if students do not pass it they can repeat it. All interviewed students appeared to be quite satisfied with this kind of enrolment system and stated that they have had no particular problem with it.

STUDENTS ACCOMODATION, SAFETY, UNION FACILITIES, SOCIAL PROGRAMMES AND SPORT

Question: are these all catered for?

Cáceres is a city with 90,000 inhabitants 14,000 of which are students. For students, it's easy to find accommodation (several houses are occupied only by students). The University provides a support service for students who have financial problems. The city is well

connected with the Faculty and the transport service allows students to move at any time of the day. The University has a sport center located near the faculty. It is easily accessible by public transport. This center has several activities such as swimming, aerobics, pilates, postural control, and tennis. University students have special discounts for these activities and most of them attend this center very frequently. Some students have also created different groups and associations in the Faculty.

TEACHING METHODOLOGY AND EXAMINATIONS

Question: are the means of teaching up to date and do the examination methods truly measure a student's knowledge?

Students are very satisfied with the didactic methods their professors use during lectures. The majority of professors use electronic support systems such as power-point and multimedia boards. During practical exercises, they often use video and screens in order to simplify the explanations and facilitate the learning process. During practicals, students rotate in groups whose size may vary according to the subject (e.g. anatomy groups are made up of 18 students, whilst groups for the training of midwifery at the hospital are composed by only 5 students). These practical activities in groups are definitely one of the strongest points of the Faculty, since students have the opportunity to do practical work beginning from the first year of their course. A problematic aspect is that some animals (cows and pigs) are mainly bred extensively in the region and it is therefore difficult for students to perform practical activities on them. Also with food-producing small animals, such as rabbits and chickens, practical activities do not seem to be sufficient for the students to reach a solid basic knowledge. The above mentioned aspects are considered a weak point of the Faculty, because it is important that in his/her education a student comes in contact with all the species of the territory in which he/she is supposed to work once he/she has got the degree. The teachers rely heavily on technology (also for distribution of teaching material), but they also recommend articles and books that can be easily found in the Faculty Library.

As far as assessment methods are concerned, most of the examination tests used in the Faculty are composed of two distinct parts, one theoretical (almost always a written examination with open or multiple choice questions) and one practical aimed at verifying the knowledge acquired during the practical hours of the course. Sometimes, in the theoretical part students are required to make presentations, especially of clinical cases, and through this activity they can also improve their communication skills. The two parts may have different importance for the final mark but, in the majority of examination tests, continuation is not permitted unless students pass both parts. Students really like this kind of evaluation method because it allows an objective assessment of their preparation and is useful to avoid evaluation problems due to subjective factors.

Some professors are used to making some questions at the end of each lecture in order to stimulate students to prepare for the final examination. These short tests are obligatory for all students who want to continue the lessons and their result is important because it is taken into consideration in order to decide the final mark of the examination. This evaluation system definitely seems to work well with students because it helps them to prepare examinations gradually during the lesson period. In this way, students reach the practical part of examination having already passed a significant part of the theoretical examination. There have however been some problems with this method of assessment since, for some subjects, this kind of test was organized every 3 or 4 lessons and if the student was absent, the corresponding evaluation mark was zero. The compromise solution was found between professors and students by agreement on the dates of these tests.

TEACHING QUALITY AND THE ASSESSMENT THEREOF

Question: is the quality of the teaching generally acceptable or is it very variable between the staff. Is an internal quality assurance program in place which is actually applied. Are the majority of students involved?

Most students are satisfied with the quality of teaching. They underline that many of their professors also do research in the veterinary field and therefore continually update. Many professors have also published articles in scientific journals and this is seen as a highly positive aspect by students, because in this way they can come into contact with the research programmes their professors are working on. A very positive aspect is the relationship that students have with their professors, who are very willing to dialogue with students, to give further explanation and to coordinate activities with students according to their different needs. This factor is probably also favoured by the presence of many young professors who are probably facilitated to establish a more direct contact with students. As in all faculties there may be specific cases of professors who do not encounter the favour of students, but in general students are satisfied by the quality of teaching.

In the Faculty at Caceres all the students are called on to participate in the evaluation of the quality of teaching. Not all the students participate in it, but many of them fill in the questionnaire because this is suggested during the hours of lessons in which their daily participate. The evaluation is carried out through a questionnaire made up of 20 items, 5 preliminary items that help to define the profiles of the students and other 15 items referred to the teaching performance. There are five sets of evaluation marks that range from very deficient (1) to excellent (5). Teachers participate in the evaluation of teaching quality by preparing a self-evaluation report. In addition to this, the academic officials make a report about each of the teachers and there a unit of evaluation and quality that is responsible to control the way activities are conducted.

In this Faculty theoretical lessons are not always mandatory, because in some cases they overlap with guards and with the internee, but all practical activities are obligatory. All students are involved in practical activities, especially as far as activities in the hospital are concerned, and the rotation system for practical activities in the hospital is organized in a way that facilitates the presence of students.

One of the biggest problems for the Faculty is that only a small number of the students are able to complete the Study Course in 5 years. This may partly be due to the fact that the organization of so many practical activities makes the learning process longer than in other Faculties. Some of the student also have to work in order to pay for their studies.

CLINICAL LEARNING AND HANDS ON APPLICATIONS

Question: Are there in general enough clinical cases for each students to have hands-on experience?

Students have many opportunities to do practical work in the course of their studies because the most important subjects have a lot of hours for practical training. In addition, students have the opportunity to do the internee in different departments and during these activities they may deepen their knowledge and their skills. In this way all the students approaching graduation are able to perform different basic manual skills such as drawing blood, making a suture, setting a catheter and so on. However, all these activities are made primarily on dogs, cats and horses, and it is uncommon for students at Caceres to practice with a bovine, a pig or other food-producing species. In addition, there is no emergency service for small animals, but only for the large animals (particularly for the equines). This is an aspect that should be improved with priority.

LIBRARY

Question: is the library adequate and easy to use for the students? Is there a “virtual Campus”? Is there “e-learning”? Is there Wi-Fi campus wide?

The library is situated in the main building of the faculty, and it is used a lot also to study, in particular during the exam period. It is equipped with all the books that professors suggest to students and their consultation is simple. In the library there are also some computers that students can use in order to look for books or articles they need for their thesis or their examinations. Students also have the possibility to use freely all the libraries located in each Department and in the centre of the Campus, where the most important library of the University is located. Students can spend much time in the library of the Faculty because its opening schedule is very convenient and it has special opening hours during the weekend in the examination period. This allows students to study in a comfortable and convenient place, which also guarantees support through the books that can be consulted.

The Faculty is provided with a Wi-Fi system that is accessible through the insertion of a user name and a password. This system allows all students, faculty and staff members to use internet and the campus platform which is called “Virtual Campus”. It is a very important tool, since it provides educational materials in addition to information about lessons and examinations. This system is gratefully accepted by students as it greatly facilitates communication with the secretariat, the teachers and the technical staff.

CONCLUSIONS

The Faculty has a very functional mobile clinic, mainly used for activities on small ruminants. Unfortunately, the mobile clinic work is an elective type of activity and consequently not all the students participate. Making it a mandatory activity could create a benefit for all students and help them to acquire further knowledge and abilities.

The introduction of a mandatory examination in the English Language at the beginning of the curriculum could improve the introduction of graduated students in Europe and facilitate the chances of studying and working abroad.

The Faculty of Veterinary Medicine of Caceres offers a broad and detailed curriculum for students with particular excellence in equine reproduction. This particular branch of medicine is treated with attention and in detail and students have the opportunity to learn a lot in this particular field.

Students at Caceres are really interested and involved in University life and during the visit I perceived their true attachment to the Faculty.

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