

European Association of Establishments for Veterinary Education
European System of Evaluation of Veterinary Training

**REPORT ON THE VISIT TO THE FACULTY OF
VETERINARY MEDICINE, UNIVERSITY OF LIFE SCIENCES IN LUBLIN, POLAND**
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INTRODUCTION

The Faculty of Veterinary Medicine Lublin (FVML) was established in 1944 in conjunction with the foundation of the University of Maria Curie-Sklodowska. In 1955 the FVML became part of the newly established Higher School of Agriculture which was turned into the University of Agriculture in 1972, and in 2008 into the University of Life Sciences.

The FVML was firstly evaluated by EAEVE in 1999 and revisited in 2005 when it was put on the list of approved establishments. The present evaluation is the 2nd one.

1 OBJECTIVES & STRATEGY

1.1 Findings

FVML refers to three fundamental objectives, education, scientific research and public service. As is indicated in the SER, the FVML tries to accomplish these objectives by:

- a) “Preparing well-qualified veterinary surgeons so they can use their knowledge and skills to improve animal health care, strengthen the importance of their profession and protect the environment.”
- b) “Serving local community and national society to solve problems of animal health care and human health protection through education, scientific discoveries and their application”

1.2 Comment

The objectives are general but clearly defined and in line with virtually all veterinary establishments. Undergraduate education is the prime objective of the establishment, but FVML is also committed to graduate education through the doctorate. Evaluation of teaching staff, research and of students 5 years after graduation are means to at least in part assess how the objectives are met.

2 ORGANISATION

2.1 Findings

The FVML is embedded into the structure of a University which is headed by a Rector and 3 Vice Rectors. The Rector is elected by the Electoral College of the University (ECU) which encompasses representatives of the academic and non academic staff and students. The Rector elect presents candidates for the position of a Vice-Rector to the ECU which itself may suggest a candidate; election of the Vice-Rector for student affairs requires the majority of the student-members of the ECU. Rector

and Vice Rectors are elected for a 4 year term out of the group of professors or habilitated doctors.

The senate of the university consists of the Rector as chairman, the Vice Rectors all Deans, one or two elected representatives of the group of habilitated and non habilitated academic staff members of each faculty or separate organizational units, the chairperson of the student government, one undergraduate and one postgraduate student from each faculty and one representative of the support staff. Major responsibilities of the senate are the regulation of all academic matters and the acceptance of the yearly financial plan as prepared by the Rector.

The faculty is headed by the Dean. He is recruited out of the group of professors or habilitated doctors, election is by the Electoral College of the faculty (ECF) which is appointed by the Faculty Council. 50% to maximal 60% of the members belong to the group of professors or habilitated doctors, 20% to the remaining academic staff, 20% to the group of undergraduate/graduate students and 10% to the non academic staff. The term of the Dean and Vice Dean is 4 years, one re-election is possible. In general the Vice Deans are elected by the ECF on proposal of the Dean, with the Vice Dean for student affairs needing a majority vote of the student members of the ECF.

The Dean is responsible for all faculty matters except for the budget which is a matter of the rectorate and senate. All developmental plans must be approved by the Rector.

The Faculty Council is the highest collegial organ of the faculty. Constitutive members are the Deans, professors and associate professors holding the title of a Dr hab, 12 elected representatives from the remaining teaching staff, 13 elected student representatives, 5 elected representatives of the general staff and 1 elected representative of the postgraduate students. The Faculty Council has essential statutory functions, among others it sets the rules on distribution of the state supported revenue allotted to the faculty.

The Faculty Council has established 5 faculty committees: *The Faculty Council for Education, the Committee for Scientific Research, the Committee for Development of Academic Teachers, the Evaluation Committee of the FVML, the Committee for the Evaluation of Education Quality.*

The heads of department are appointed for a 4 year term by the Rector on proposal of the Dean and endorsed by the Faculty Council; renewal is possible. Among other things the Department Head is responsible for all teaching obligations of the department, organization of research and propositions concerning personnel.

At the time of the visit FVML comprised 10 departments, with 6 of them consisting of 1 to 4 sub – departments.

The structure of the clinics is discipline orientated with a Department and Clinic of Animal Surgery, Department and Clinic of Animal Internal Medicine, Department and Clinic of Animal Reproduction and Department and Clinic of Infectious Diseases (while teaching is according to species in the new curriculum).

The FVML interacts with intercollegiate units like the Library, the Central Apparatus Laboratory or the Dept. of Physical Education.

2.2 Comments and Suggestions

The FVML is presented with the normal advantages and disadvantages of a faculty embedded into a University.

There are plans to restructure the clinics from the discipline to the species system. Presently most faculties favour the species system. However, unless the necessary manpower, patient load and financial support are provided, this system may not be the optimal choice. FVML is certainly encouraged to improve the system, but changes must be based on a critical analysis.

In view of the need for strategic planning and cooperation the Team questioned the efficiency of the organization in 10 departments with 6 of them encompassing 1 to 4 sub-departments. As is outlined in some more detail in Chapters 4.2.2, 4.3.2 and 4.4.1.3, a distinct and severe lack of cooperation and communication became obvious, in particular the clinical structure leads - as observed during the visit - to inefficiency and duplication and is all but straight forward for treating incoming patients.

There is a strong suggestion to reduce the number of departments in order to improve the integration and cooperation among the different disciplines and to consider the suggestion made in Chapter 6 concerning the future clinical structure.

Several faculty committees established by the Faculty Council deal with evaluation. It is suggested to allow for student representation not only in the Faculty Council for Education but also in the Committee for the Evaluation of Education Quality.

3 FINANCES

3.1 Findings

The sources of income of the FVML are funds provided by the Ministry of Science and Higher Education, income from services offered by the FVML and acquired research grants.

Factors affecting the calculation on the funds assigned are:

- a) The number of undergraduate students enrolled,
- b) The cost consuming factor as established by the Ministry, which is 3 at present. The same factor has been derived for the Faculty of Biology and Animal Breeding.
- c) The scientific achievements of an establishment as judged by the Ministry resulting in a given category; FVML is in category 1 which is the highest one out of four.

Concerning funding by the Ministry a distinction is made between funding of "statutory", i.e. legally required activities (DS) and research activities (BW). Allocation of

funds requires a faculty prepared proposal, accounting for the past, current and coming year, to be submitted to the Rector.

From the budget assigned to cover statutory expenditure 30% are retained for central expenditure (e.g. library, maintenance etc) and are managed by the central university fiscal administration. From the remaining part of the budget 5% remain at the disposal of the Dean to support specific projects. The remaining 65% are allocated to the individual departments and sub-departments with 60% assigned according to scientific merits as deducted from the total number of points assigned to the papers published and 40% according to the number and type of employees in the individual unit.

The Ministry provides funds for individual research (BW); 20% are centralized on the university level. From the remaining part again 60% are assigned according to scientific merits and 40% according to the number and type of employees in the individual unit.

Further sources for financial support are central funds of the University for repairs, equipment and other capital expenditure. A small income also originates from the 5% deducted from the tuition of those students who were accepted as extramural students (students who have to pay a tuition) (see Chapter 9).

In 2010 the total income of the FVML amounted up to 2 373 979 €. The income generated by the FVML was 70.370 € from services provided and 5.724 € from non ministry research grants.

When compared to 2009 and 2008 the total budget available to the FVML has decreased by about 40%, mostly at the expense of the Ministry provided grants for research (BW grants).

FVML states that major investments concerning clinical facilities will be necessary, it also complains that due to the low salaries many clinicians (legally) run private clinics, which distracts these persons from teaching, clinical work and research and thus presents a conflict of interest.

3.2 Comments and Suggestions

Funding of a faculty and the underlying administrative system can not be judged on the absolute amount of money provided, which in general is relative when compared to other countries, but the performance of a faculty in teaching, research and providing clinical services.

Clearly all academic staff is heavily engaged in teaching and research. However, due to the low salaries a certain part of the clinical teachers is engaged in private practice which must be called contra-productive in view of the official academic obligations. There is also some lack in technical support staff resulting in a shortage of support for teaching, research and clinical services. Clearly, more teaching animals should be put on stock.

Funds available for teaching and research are scarce – as everywhere. However, at the FVML it became specifically obvious that support for participation in scientific conferences and meetings, particularly for the younger staff, is at a very low level.

This certainly hampers scientific progress and the interaction of FVML with the international scientific community.

Many buildings show signs of wear and tear, in many cases not allowing the maintenance of adequate hygienic and safe condition. Also a substantial number of equipment needs replacing.

In conclusion and in spite of the great recent progress made by the FVML, these observations indicate that FVML lacks adequate financial support, both in respect to statutory activities and reinvestment.

The rectorate and ministry should account for this situation and it is strongly suggested to increase the budget and monetary support of the FVML.

4 CURRICULUM

4.1 General Aspects

4.1.1 Findings

The curriculum of all Polish veterinary establishments is based on a national regulation in effect since July 2007 which is in basic agreement with Directive 2005/36/EC. As laid out in the national regulation, the minimum number of hours should be 5100 with 300 hrs devoted to clinical training and several teaching blocks devoted to humanities and physical education; 960 hrs are at the disposal of the faculty.

The curriculum is a one tier program leading to the diploma of a veterinary surgeon (equivalent to a master degree). No tracking is offered, but students must choose from a wide range of electives.

The curriculum comprises extramural training in animal breeding, food hygiene and veterinary practice.

The new curriculum implemented at the FVML encompasses a total of 4870 hrs including extramural training but disregarding languages, intellectual property, psychology and physical education (further details are given in the following chapters).

At the time of the visit FVML was in the process of restructuring its clinical organization from a discipline oriented structure to a more species oriented structure. In conjunction with this rearrangement FVML is implementing a new system for practical hands on clinical training, with the 5th year entirely devoted to this type of training/teaching.

E-learning and self directed learning are still on a low profile. However, FVML has developed a syllabus for all subjects to be taught which is available to the students.

The Faculty Council for Education is responsible for implementation, adjustment and coordination of the curriculum/syllabus. It is composed of 5 academic teachers and 2 students and meets at least 3 times per semester. Apart from taking own actions it responds to suggestions forwarded by teachers and students. Any proposed changes must be approved by the Faculty Council and the Vice Rector for Study Matters.

4.1.2 Comments and Suggestions

In general the curriculum looks well balanced between subjects and type of lectures except for the time allotted for hands on clinical training which is with about 350 hours at a rather low level.

The curriculum as laid out and as was experienced during the visit lacks integrated teaching. This is seen as a result of the highly diversified responsibility concerning the structure and contents of individual teaching blocks, which is the sole responsibility of one of the many “unit heads”.

Apart from the suggestions made below it is strongly suggested to rearrange the curriculum to allow for modern integrated teaching, which would also strengthen the idea of research based teaching.

4.2 Basic Subjects & Sciences

4.2.1 Findings

Basic Subjects (485 hours) and Basic Sciences (1310 hours) account for a total amount of 1795 hours corresponding to about 36% of the core curriculum. This could be considered somewhat excessive, but it should be taken into account that in Basic Subjects, disciplines like Latin, Psychology & Philosophy, History of veterinary Medicine etc. are taught. The hours allotted seem balanced, but teaching of many of the basic subjects and basic sciences should be more veterinary oriented, both in the contents (particularly seminars) and in the practical work. Some most important disciplines (e.g. Anatomy, Physiology, Pathophysiology) of the basic sciences are enthusiastically presented to students but, like some other disciplines (e.g. Toxicology, Pharmacology, Epidemiology etc.) should be better implemented with effective practical work addressed to the education of a future veterinarian. Unfortunately, much of the laboratory and desk based work are simply seminars, thus not allowing students to manage practical work by themselves. Apart from classes addressing the whole semester, students are divided into adequately small groups (15 students per teacher, or in some cases 4-8 students per desk or dissection table). Thus students seem to have a quite good training in many of the basic sciences.

Generally, the amount of laboratory and practical work ranges, depending on the subject, from 40 to 50% of the course and in some cases they by far exceed the theoretical lectures (e.g. Anatomy, Microbiology, Physiology, Biochemistry etc.), with a satisfactorily hands-on involvement of students. However, there are also some disciplines where no real practical work is conducted with only guided work or interactive seminars offered to students. Students have freely direct access to teaching material, supplied directly by teachers or available on the intranet or in the teaching laboratories of the departments. A very positive aspect is that there is – with the exclusion of some strictly basic subjects – a high prevalence of teachers who are veterinarians, thus, generally, facilitating the pre-professional orientation of these subjects. On the other side in some cases, such as anatomy, physiology, biology, pharmacology and toxicology and especially in relation to practical work, the lack of integration and coordination, particularly also with the courses in the Animal Production disciplines (Genetics, Animal Breeding and Nutrition) and Clinical Sciences (Internal Med-

icine, Surgery, Reproduction), does prevent effective practical work from a veterinary point of view. For example, in the course of Physiology the number of hours of “no clinical animal work” may be increased by using healthy animals recovered at the facilities of the faculty (such as horses) to introduce students to the measurement of respiratory or cardiovascular physiologic parameters, at present performed in rats. Another example are the courses of Veterinary Pharmacology and Veterinary Pharmacy that could use the clinical units of the Faculty, on a scheduled timetable according with the clinical teachers, to perform regularly hands on work and not only theoretical demonstrations.

All practical courses should include drawing student’s attention to the need to maintain proper hygiene, security, bio-security and waste disposal as this appears to be not adequate implemented at the Faculty and as it must be considered as a fundamental item for a Medical Faculty.

4.2.2 Comments and Suggestions

The basic subjects and basic sciences taught at the FVML seems to provide a satisfactory theoretical background to the students. However, laboratory and desk based work should be improved by increasing the number of hours and opportunities for hands-on work by students. Students consider the amount of hours devoted to basic subjects and basic sciences included in the curriculum as adequate and necessary for their professional preparation, although a more clear veterinary orientation and relevance should be strived for. Obviously there is a very limited coordination in teaching different subjects belonging to distinct departments, even when a didactic relationship among disciplines exists. A better coordination between the basic subjects and basic sciences is strongly suggested, particularly for those disciplines that have pre-clinical and pre-professional items. A more integrated education could be provided on a departmental basis. This seems very difficult to be achieved due to the present organization of the Faculty, where too many Departments, with limited ability to exchange and communicate, exist. Moreover, a more strict cooperation between the pre-professional oriented subjects such as topographic anatomy, microbiology, epidemiology, immunology, genetics, pharmacology and toxicology and the professional disciplines, activities (e.g. Animal Production disciplines) and services (e.g. Clinical Units) should be encouraged in order to increase the professional activity of student and caseload. Biosecurity and safety items should be taken into account to secure the activities of the staff and the practical work of the students, as at present they practically do not exist.

Consequently there is the strong suggestion to improve cooperation and coordination between the various groups teaching basic subjects and basic sciences. Similarly cooperation and coordination with the groups teaching Animal Production, the Clinical Sciences and Food Hygiene / Veterinary Public Health should be intensified. A very strong suggestion is given in order to take into the due consideration biosecurity and safety for staff and students.

4.3 Animal Production

4.3.1 Findings

The Faculty appeared to be very creative in finding and securing (by contract) facilities where students can do practical work on farm animals. One of the pig farms visited offers students excellent opportunities to do practical work and to experience the work and processes at a modern food animal production farm.

Criteria used for this selection are not only related to (building) facilities and the type and stock of food animals, but also to the mentality of the farmers, herdsman and local vets participating in the teaching.

Students are exposed to farms and farm animals during a holiday practice (80 hrs) after the 2nd year of their study.

Except for Ethology, Welfare and Protection of Animals all subjects taught under the headline “Animal Production” are dealt with by teachers of the Faculty of Biology and Animal Breeding. Though there is some interaction with the FVML as the Faculty Council has to agree on the subject to be covered, a common umbrella is missing and the discipline of “Animal Production” has a low visibility.

The total number of curricular hours allotted to this discipline is 225 hrs with about 38% being practicals and about 8% being seminars.

In general education in “Animal Production” seems to be parallel and not integrated. Thus the importance of Agronomy (e.g. silage production, pasture management and use of particular feeds/plants etc.) for the role and responsibility of the veterinarian seems not to be sufficiently covered; the aspects of Herd-Health Management are largely left aside. Thus students are relatively little exposed to the integration of Preventive Veterinary Medicine, Clinical Sciences and Agronomy which are fundamental aspects of herd health and of the role and responsibilities of the veterinary profession.

4.3.2 Comments and Suggestions

There is a sufficient number of hours of teaching in Animal Production and there is a good balance between practicals and theoretical training.

Teachers presented a good background and intention for teaching Animal Production. However, in general it was felt that Animal Production and Herd Health Management are subjects which should deserve more attention in the teaching program.

To achieve this disciplines working on the relevant subject related to Herd Health Management and Animal Production should be better aware of the fact that their discipline is a part of a larger concept and must not be seen as a separate discipline. This relates to, for example, Preventive Medicine, Clinical Science, Nutrition, Veterinary Public Health and Agronomy. Also Veterinary Public Health and Animal Welfare are essential topics related to Animal Production and must be addressed resp. integrated.

Work on farms is largely related to clinical aspects and relatively little on animal production.

Consequently there is the strong suggestion to better integrate disciplines related with Animal Production and Herd Health Management. One department has to be committed to take responsibility for this integration.

The FVML has the great opportunity to take the lead to implement and integrate Veterinary Public Health, Animal Welfare, and Agronomic with Veterinary Clinical Sciences, due to the excellent relation with farms in the agricultural surroundings of Lublin and motivated scientific staff.

4.4 Clinical Sciences

4.4.1 Clinical Disciplines

4.4.1.1 Findings

As deducted from the SER and according to the new curriculum clinical sciences comprise a total of 2070 hrs. These split up as follows: Lectures 735 hrs; Seminars 141 hrs; Laboratory and desk based work 405 hrs; Non-clinical animal work 428 hrs; Clinical training 341 hrs, other 20 hrs. Animal bound clinical training starts in year 3 and culminates in the 11th semester which is solely devoted to clinical rotations between companion animals, horses and livestock (60 hrs each).

Education in clinical sciences is regulated by a strict timetable accounting for the training of one individual student. However, only the training on companion animals can be taken as a block. The participation in the training of livestock, which is virtually entirely on extramural premises, is by individual appointment only, which is the responsibility of the individual student. Participation is controlled and only credited when the 60 hrs have been absolved.

Clinical training on companion animal is intramural, on horses it may be intramural and on extramural premises and is credited as indicated above. Only few animals were kept on stock for propaedeutical instructions.

Clinical education on extramural premises is via the mobile clinic and the ambulatory service and under the immediate responsibility of the teaching staff of the respective clinical unit.

Not listed in the SER, but as reported by the Dean, students must obtain another 80 hrs of "hands on" clinical training in contracted veterinary practices by staying there from Friday afternoon through part of Sunday during the last year of study.

On a voluntary basis students may also participate in the 24 hrs emergency service, and during the visit it became clear that only a very limited number of students attends to this activity.

Students must absolve an extramural clinical training for 160 hrs in a veterinary practice after the 8th and 10th semester.

4.4.1.2 Comments

Particularly when considering the extra 80 hrs of clinical training the distribution between the various types of clinical instruction can be considered in balance. This also accounts for the variety of species seen as patients (see Chapter 7) and, as far as could be observed, also for the types of patients. Hands on clinical training was considered satisfactory by the students interviewed, though from a theoretical point of view more hours could be added to this type of teaching. In any case the great efforts of the faculty to secure clinical veterinary education on livestock and horses must be acknowledged; indeed the FVML could take a lead in this respect.

At the time of the visit and in spite of the ongoing restructuring of clinical teaching, clinical units were separated, lacking adequate cooperation and organization.

Further comments and suggestion concerning facilities and organization are given in Chapter 6.

4.4.1.3 Suggestions

The FVML is encouraged to further develop the already rather successful program on clinical education on extramural premises. The ambulatory service (not the mobile clinic) as a unit being available on call for on farm service should be organized in a way that the involved veterinary staff of FVML acts like a regular practitioner ready to deal with all kinds of problems.

FVML runs a 24 hrs emergency service. However, participation of students is voluntary and on a low scale. In order to improve clinical education, participation should be obligatory.

More animals for teaching purposes (propaedeutics), specially for livestock, should be kept on stock (see also 7.2.1.2).

Reorganization of the clinics as outlined in Chpt 6 is suggested, also in order to secure cooperation within the clinical units and of the clinical with the paraclinical disciplines (see also Chpt 4.3.2).

4.4.2 Necropsy

4.4.2.1 Findings

Pathological anatomy (pathomorphology) is taught in years 3 and 4 with 75 hrs of lectures, 30 hrs of laboratory and desk based work and 60 hrs of non-clinical animal work. Although the facilities are quite old, teacher and students are very enthusiastic of practical work in this discipline. The hours of teaching and of practical work seem adequate as well as the number of necropsies on small animals, however, the number of necropsies performed per student on large animals is not sufficient (see Chapter 7)

4.4.2.2 Comments and suggestions

There is a strong recommendation to significantly improve the number of necropsies performed on large animals per student (See Chapter 7).

4.5 Food Hygiene & Technology, Veterinary Public Health

4.5.1 Findings

Teaching in the field of Food Hygiene and Veterinary Public Health is given by the Department of Food Hygiene of Animal Origin. The courses and teaching hours, including extramural practice is shown in the below Table.

Table: 1 Subjects and teaching hours in 'core' food hygiene subjects

subject	year	hours in course			ratio of lectures to other types of work
		lectures	practical work	total	
Hygiene of food animals and meat	4	30	90	120	1:3
Training in veterinary inspection unit in slaughterhouse (extramural holiday practice)	4+	0	80	80	
Milk hygiene	5	15	30	45	1:2
Hygiene and technology of food of animal origin	5	60	75	135	1:1,25
Training in veterinary inspection unit in food plants and services (extramural holiday practice)	5++	0	80	80	
Total		105	355	460	1:3,38

+ after 8th semester; ++ after 10th semester

Considering the three intramural courses, practical work for all students is composed of 89 hrs of seminars (group size 15 students), 85 hrs of laboratory courses (group size 15 students), 14 hrs of slaughterhouse teaching (group size 5 students; 9 hrs pigs and cattle, 3 hrs poultry, 2 hrs game animals), and 7 hrs teaching at food processing plants (group size 15 students). Additionally all students have an extramural practical work of 80 hrs in slaughterhouses (after the 8th semester) plus 80 hrs in food plants and veterinary public health services (after the 10th semester).

For Laboratory and desk based work the semester is divided into 6-7 groups of around 25-30 students each with a further split into two sub-groups supervised by one teacher in case of plain laboratory/practical work. Theoretical group teaching in-

cludes mainly HACCP methods and examples, while laboratory work includes sessions on food microbiology and hygiene, food analysis (sensorial, chemical, fraud detection), examination for trichinosis, and food inspection of meat, meat products, milk, dairy products, fish, fishery products and eggs.

The only slaughterhouse used for training during the course is an EU-approved private establishment in Nasutón, about 20 km from the campus, employing two full-time official veterinarians. There are two slaughter lines: for pigs (100 pigs daily) and for bovine (10 cattle weekly). Teaching is organized into groups of 5 students with one teaching staff plus one official veterinarian in sessions including ante-mortem and post-mortem inspection. The system at the slaughterhouse allows students 'hands-on' experience, as there is a place where operators separate carcasses for inspection purposes.

4.5.2 Comments and Suggestions

The teaching covering Food Hygiene and Public Health is generally sound and covers all EC subjects. The students receive sufficient theoretical and practical teaching in inspection and control of foods of animal origin. The theoretical group teaching and laboratory practices cover all relevant aspects of HACCP, food microbiology, food analysis, and food inspection, except for chemical hazards with only one laboratory session of antimicrobial residues in milk (2 hrs).

The practices at the slaughterhouse during the course are sufficient for pigs, but not so much for cattle, however, there is compensation by the extramural holiday practice after the 8th semester.

Training in Food Hygiene and Public Health is not coordinated with teaching in Pharmacology, Toxicology, Pathological Anatomy, Animal Production, and the Animal Health subject e.g. (Epidemiology, Infectious and Parasitic Diseases, Nutrition and Preventive Medicine) in a "one health" and a "feed-to-table" concept and all efforts should be made to achieve this. There should be a sound interdisciplinary approach to effectively link all these relevant aspects.

The training in Food Hygiene should include more practical teaching for all students in chemical hazards relevant to food safety (residues, pesticides, growth promoters, mycotoxins, heavy metals, etc.) in cooperation with other departments.

4.6 Electives, Optional Disciplines & Other Subjects

4.6.1 Findings

12 courses in the field of basic sciences, 25 in the field of clinical sciences, 1 course concerning professional knowledge and 2 others are offered. Students must choose two electives per year (one per semester) accounting for a total of 180 hrs.

4.6.2 Comments and Suggestions

No electives in the two important disciplines, Animal Production and Food Hygiene, are offered. There is just one elective that may concern Herd Health. Otherwise the Electives offered seem to be narrow and very much discipline oriented.

It is suggested to add electives in the field of Animal Production/Food Hygiene and to develop electives that show true cooperation between disciplines concerning Animal Production, Animal Welfare, Preventive Veterinary Medicine and Veterinary Public Health.

The denominators calculated for the ratios used as indicators for the distribution of the types of lectures are as follows:

No	Direction	Type	Fraction	Denominator	
				Faculty	ECOVE ¹⁾
R 6:	LL	<u>Theoretical training</u> Supervised practical training	$\frac{1964}{2326}$	1.18	0.59
R 7:	UL	<u>Clinical Work</u> Laboratory and desk based work + non-clinical animal work	$\frac{349^1 (429)^2}{1977}$	5.7¹ (4.6)²	2.12
R 9:	Ra	Total no. curriculum-hours <u>Food Hygiene / Public Health</u> Total no. hours vet. Curriculum	$\frac{300}{4310}$	14.4	6.00 - 42.26
R 10:	Ra	Total no. curriculum hours <u>Food Hygiene / Public Health</u> Hours obligatory extramural work in Veterinary inspection	$\frac{300}{160}$	0.53	0.05 - 0.82

¹⁾ includes 3 hrs deducted from electives, ²⁾ includes 80 hrs contracted extramural work

Except for R7 all denominators set by ECOVE are well met. The fact that R7 is above the UL does not necessarily indicate that there is too little clinical work as the curriculum encompasses a very high number of hrs for supervised practical training and non-clinical animal work.

5 TEACHING QUALITY & EVALUATION

5.1 Teaching Methodology

5.1.1 Findings

The FVML uses a range of teaching methods including classical lectures, seminars for group-work, laboratory work, and computer-assisted learning in some cases. Self-study as defined in the SOP has not yet been established. All lecture halls are equipped to allow for power-point presentations. For each course, the objectives, the program, requirements and system of evaluation are made known on the Faculty website, as are the power point presentations for the theoretical and practical classes. However, no hard-copies are provided.

Participation of students in seminars, practical course work and clinical training is controlled and certified.

For seminars and practical training the group size is 30 students, which is divided in two sub-groups (15 students each) for all disciplines except clinical teaching which is organized in groups of 5-6 students under competent supervision, either at the premises of the faculty or on the extramural facilities. However, many sessions defined as laboratory and desk based work are largely based on demonstrations rather than hands-on training.

In some departments and sub-departments the facilities for practical, laboratory and desk based work lack modern equipment meeting safety standards (see also Chapter 4.1). Consequently education of students concerning safety/biosecurity is hampered as some practical teaching is in an environment with questionable aspects related to biosecurity.

There is little evidence that teaching is based on a problem-solving approach as - for example - becomes evident from the little cooperation and interaction in didactic matters between the various departments and sub-departments.

Most teachers complain that teaching quality is not acknowledged well enough in terms of salary and promotion which, however, does not affect their engagement concerning teaching.

FVML has established a system of evaluation of teaching staff by students every two years. Results are handled by the Faculty Committee for the Evaluation of Education Quality. Though no actions have been taken so far by the FVML, it had been reported that the simple notification of a less positive result leads to an improvement in teaching quality.

The quality in teaching is also stimulated and appreciated by offering a reward for "distinguished teaching" by the Rector.

In addition all teachers have to submit themselves every fourth year to a self-assessment based on their professional achievement in the field of didactics and research (SER p. 77). These activities are the responsibility of the Committee for the Evaluation of Academic Staff.

The most recent approach to assess the quality of students at graduation is a survey of graduates 5 years after graduation. As was confirmed during the interview with the alumni, graduates were in general satisfied with the knowledge acquired during undergraduate education.

5.1.2 Comments and Suggestions

The ratio of Theoretical training to supervised practical training is very good (denominator 1.18 for R6, see above and Appendix 1) and indicates that the contact between students and teacher should be good and lasting, a conclusion confirmed during the interviews with the students.

Teaching is based on a largely traditional format where lectures, seminars and supervised practical classes predominate. Self-study as defined in the SER has not yet been established, however, a commendable approach is taken in some areas, in par-

ticular biochemistry and pathophysiology. E-learning is still in the “*status nascendi*” and it is open to what extent this type of self-study will be further developed.

In general the teaching methods applied can be considered satisfactory. It is, however, suggested to further develop and implement the possibilities for self-study available on the intra/internet. This is considered feasible as virtually every student has a Laptop/Computer.

Ample teaching material is provided via inter/intranet. In order to avoid that students have to print out the material before the classes, which is costly in terms of time and supplies, it is suggested to leave a hard-copy in an adequate place for the students to photocopy if needed.

Subjects are taught as rather separate entities and an interdisciplinary education is lacking. Clearly the various departments need to coordinate and integrate their teaching and provide an overall perspective for problem-oriented and case-based teaching in the pre- and paraclinical disciplines.

Lastly, investments should be done in new equipment for the laboratories in order to improve both quality and safety of students’ practicals and the appreciation of biosecurity by students.

5.2 Examinations

5.2.1 Findings

There is no central examination policy and depending on the instructor, exams may be oral, written (including multiple choice), practical or a combination of it. However, the Faculty Council must agree on the form of the suggested examinations.

The examinations are structured, partially depending on the semester and on the curriculum; two curricula were operating simultaneously at the time of the visit with the 4th and 5th year following the old curriculum.

Obligatory extramural work is assessed by a diary and oral assessment by one of the teachers (clinical sciences, food hygiene).

Examinations are by the teaching staff of FVML, only in one course (Veterinary Administration) an external examiner is involved.

During a course there are generally 3 tests to check on the student’s ongoing performance. The official test for each subject is during a defined period at the end of each semester. Two retakes are possible; in case these are failed the whole course has to be repeated in the next year. If more than one course is failed, the whole semester has to be retaken. Until this has been achieved a student can not progress in the curriculum. These prerequisites are clearly outlaid in the syllabi which are part of the package the students obtain when entering FVML.

The Program Council, which reports to the Faculty Council, apparently has the immediate responsibility for the examination system.

5.2.2 Comments and Suggestions

Given the present situation the examination system appeared to be rather effective.

However, quality and quality assurance of the examination system has no specific priority in the faculty.

The teacher of a given course is responsible for the examination of his specific subject, and acts at his/her own. There is no survey of the quality of the examinations of the different courses, and no central examination policy.

It should be the responsibility of the Program Council to monitor and evaluate the quality of examination and to create a tool to evaluate assessment.

5.3 Students welfare

5.3.1 Findings

Student welfare is according to national regulations and an important issue (see SER p. 82, Chapter 5.1.5). However, the team did not become aware that special arrangements had been made concerning the participation of disabled students in the curriculum and to have easy access to the facilities of the faculty.

5.3.2 Comments and suggestions

FVML should develop – in cooperation with the University – a system to provide the necessary support for disabled students.

6 PHYSICAL FACILITIES & EQUIPMENT

6.1 General Aspects

The Faculty of Veterinary Medicine of Lublin is located in different buildings belonging to the University of Life Sciences. The building “Collegium Veterinarium” at 12 Akademicka Street hosts classrooms and laboratories where lectures, seminars and practical work on Basic Sciences and Pre-clinical disciplines are carried on. This building is included in the complex of the University of Life Sciences very close to the Rector’s Office and the Library of the University Maria Curie Skłodowska. Training in Clinical Sciences is performed in the Clinical Units located at 30 Gęboka Street. Being in the urban context, the Faculty is easily reached by students by public and private transports.

There are also other facilities, in which are allocated teachers and laboratories involved in the didactic activities of the faculty, but that do not belong to the Faculty of Veterinary Medicine but the Faculty of Biology and Animal Breeding.

A project for building new premises for Clinical purposes is currently under development and approval.

As mentioned in Chapter 4.3 the farms to teach animal production are highly appropriate.

6.2 Basic Sciences

6.2.1 Findings

The building of Collegium Veterinarium hosts the Department of Animal Anatomy, the Department of Biochemistry and Animal Physiology, the Department of Food Hygiene of Animal Origin, the Department of Preclinical Veterinary Sciences, that include the Sub-Department of Toxicology and Environmental Protection, Sub-Department of Pathophysiology, the Sub-Department of Pharmacology, the Institute of Biological Basis of Animal Diseases, the Sub-Department of Fish Diseases and Biology, the Sub Department of Parasitology and Invasive Diseases and the Sub-Department of Veterinary Prevention.

The Collegium Veterinarium is an old building, which is in general well maintained but which also shows signs of tear and wear with some of the facilities not being adequate at all.

Apart from the research and services laboratories, the building encompasses classrooms, laboratories for practical and desk based work, a microscopy room (35 microscopes), a computer room (11 p.c.), 2 dissection rooms (in the basement) and the Faculty Library (details of the premises are reported on page 106 – 108, SER).

All lecture rooms, laboratories and dissection facilities are adequate in number of places and available space.

In general student teaching and research facilities are adequately equipped. However, there are substantial differences; in some cases they are well equipped with new instruments and devices (e.g. biochemistry) in other cases they need to be refurbished and adequate equipment is missing (e.g. microbiology, pharmacology/physiology).

In general biosecurity and safety items were in a sad state. This accounts for the precautions taken when students were supposed to work with risk material, e.g. in microbiology; hoods and the respective laminar flow apparatus should be made available if this type of work is to be maintained. Similarly eye-douches were missing in virtually all laboratories and in many places washing and disinfection of hands using disposable towels was not adequately possible. Of a particular problem were the conditions of the dissection room of Anatomy with no proper ventilation and storage facilities and facilities where students could change and store their belongings. The Ossarium was nothing but a fully packed storage room. The Team also noticed that in many cases hallways were obstructed with equipment and cabinets.

6.2.2 Comments and Suggestions

Generally, the premises provide ample space for teaching and research and the teachers, support staff and students met were very proud and enthusiastic about the teaching environment.

While some laboratories are well equipped, others urgently need new equipment.

Premises and facilities dedicated to Basic Sciences should be improved and in part renewed. New equipment, instrument and devices are necessary to improve the quality of student training. This, for example also relates to computer programs to perform dynamic and kinetic simulations and calculations for desk work in Pharmacology and Toxicology. FVML is encouraged to solve these problems and to set up a structured list of priorities.

Conditions of the dissection rooms of Anatomy were considered unacceptable and the high dedication of the teaching staff should be supported by starting a renovation (dressing-room dedicated to the students, dissection tables, *ossarium*, etc.).

When refurbishing some of the premises biosecurity and safety should be taken into account in order not to expose students and staff to biological risk (e.g. practical works in microbiology without any protection or preventive measures: gloves, mask, filters, laminar flow etc.).

Consequently, of greatest concern to the Team was the lack of adequate biosecurity and safety measures.

6.3 Clinical Facilities & Organization

Facilities split in 4 parts based on the former discipline organization (internal medicine, surgery, reproduction and infectious diseases). Management of the clinics of the FVML is according to the disciplines, however, changes are in progress to take into account for the new species orientation: in each discipline, persons are progressively specializing their activities on one species (companion animals, farm animals or horses).

6.3.1 Organization

6.3.1.1 Findings

Companion animal patients may be presented at two distinctly separate “ambulatory receptions” at the Department of Internal Medicine/Surgery or at the “ambulatory reception” Department of Infections Diseases. The latter department also covers ophthalmology, dentistry/stomatology and parts of cardiology; it is further responsible for the isolation units for small resp. large animals.

A centralized patient recording system is available and can be assessed from all clinic-based computers. However, it has not yet replaced the traditional handwritten protocols and apparently not all patients enter the electronic recording system.

Treatment of food animals and horses on extramural premises (private farms, horse stables) and the teaching of students in small groups seems to be located with “large animal surgery” which apparently also holds the chief responsibility for the ambulatory service.

The highly diversified clinical structure is also reflected in the different ways how drugs are handled. There is no central pharmacy. In one clinic (Internal medicine) each veterinarian is responsible for his own little box of drugs – leading to the situation that some expired drugs had been found – while in another clinic (Infections diseases) a sufficient number of drugs is stored with the supply secured by prompt service from a large distributor (pharmacy) on electronic order.

Each clinical unit has some equipment for clinical-chemical analysis. However, the only up to date laboratory was observed in the Department for Infections Diseases. Again the Team encountered very little cooperation between the various clinical units.

The X-Ray Unit is a sub-department of the “Department and Clinic of Animal Surgery” and open to all clinical units. However, large animal patients seem to be the exception. There is an emergency care service, with vets on duty, but without real implication of students.

6.3.1.2 Comments and Suggestions

In spite of its complexity the present clinical organization seems to provide an adequate clinical education (hands-on training) of students. However, it is all but a “shining example” as a university animal hospital should be.

The FVML must overcome the inflexible and in part inadequate organisational structures to meet present standards.

There is a strong suggestion to completely restructure the organization in parallel to building the new clinical facilities for large and small animals.

Of course there are several ways to achieve this and the Team was not in a position at the end of the visit to come up with a solid, economy based suggestion. Yet some points to be met can clearly be spelled out:

- to establish a uniform and efficient system for handling animal drugs
- to establish a centralized laboratory for clinical chemical analysis (the laboratory is already there but not used that way)
- to establish a central “reception” for all small animal patients
-
- to establish a 24 hr ambulatory service for out (farm) patients operated like a veterinary practice with one veterinarian having the immediate responsibility

The suggested clinical reorganization is certainly a difficult enterprise. It will not be possible to provide all clinical services separate for each species (companion animals, food animals with a separation into ruminants and pigs, equine) but certain clin-

ical units will have to continue to work as a “discipline” providing services for all species (e.g. ophthalmology, reproduction, diagnostic imaging, dermatology etc.). This probably also accounts for infectious diseases which may function as a clinical subunit, also dealing with the prudent use of antibiotics.

Such a structure, devoid of departments, could be housed under the roof of one Animal Hospital. There are enough examples – also in human medicine – how the underlying structure could look like.

6.3.2 Facilities

6.3.2.1 Findings

Facilities are separated according to 4 different departments, with emphasis to function according to species.

The “Vivarium”, the most recent addition to the clinical facilities, can be considered excellent in respect to equipment, maintenance and biosecurity.

FVML has a new and well equipped van for the mobile clinic, they have other vans to transport students and trailers to haul animals (pick up from farms).

Also the X-Ray unit is well suitable for imaging of small animal patients. However, due to the access it will be difficult to bring in large animals (horses, cattle). All the other facilities show old and not adequate structures, thus leading to not acceptable situations.

Thus the large animal surgery theatre in the Department and Clinic of Animal Reproduction is certainly inadequate for horses.

Biosecurity standards are not or only inadequately maintained; thus there is immediate access to operation theatres from hallways without providing any disinfectant measures. There is no clear distinction between a clean and non-clean area, for example when preparing for surgery.

Other biosecurity measures, like possibilities to disinfect, disposable towels etc. are on a low profile.

The isolation unit for large animals was found in a non operational stage; e.g. immediate access from the stalls, no disinfectant measures or preparations to install those immediately were observed. These measures were also missing concerning the small animal isolation facilities.

There are hospitalization facilities, but separated based on the former departmental organisation. The number of places available appears to be enough.

However, there are still some stands for horses and no real intensive care unit was observed for companion animals. Otherwise all the basic equipment was present, some of it most modern, and – as became obvious during the interviews with the alumni – the clinical standard clearly out passed that of a normal practice (veterinary clinic).

This, however, does not apply to the standard of handling drugs. Thus the refrigerator in the storage area was also used for storage of food – presenting a biosecurity risk – and also the use of a drug storage room as an otherwise general storage room does not meet good veterinary practice.

6.3.2.2 Comments and Suggestions

The FVML was able to acquire some excellent new clinical facilities in the past years. However, virtually all the other clinical facilities show signs of wear and tear, in some cases rather severely. Not to start some immediate renovation can only be accepted as the proposition looks good that two new clinical buildings, one for small and one for large animals, should be available within a reasonable length of time.

Yet, regardless of these expectations, minimum clinical standards must be maintained in the old facilities.

In general there is a lack of biosecurity. This particularly accounts for the maintenance of “clean” and “not clean” areas in respect to surgery theatres due to the established inter-crossing pathways and in particular to the non functioning state of isolation units.

Organization of the handling of animal drugs is a matter of FVML. However, whatever system is applied, the storage of drugs should be separate from other equipment, a refrigerator must be used for drugs only.

Further strong suggestions are:

- **to improve the intensive care facilities for companion animals**
- **to stop use the large animal surgery table at the Department and Clinic of Animal Reproduction for horse surgery but to use the facilities of the Department and Clinic of Animal Surgery**
- **to improve the access for large animals to the X-Ray unit**

6.4 Food Hygiene

6.4.1 Findings

The facilities of the FVML to teach Food Hygiene offer ample space. They are located in the building “Collegium Veterinarium” and the comments made under 6.2.1 also apply here. Certainly laboratories are underequipped for modern food analysis and food quality control. Biosecurity measures were not up to date, as students are not provided with the proper safety equipment (e.g. gloves, masks, other disposable material).

6.4.2 Comments and Suggestions

The needs of Food Hygiene concerning modern equipment for teaching and research should be considered when setting up the list of priorities as suggested in Chapter

6.2.2. Students should use proper safety equipment when doing laboratory and desk based work. The suggestions made in Chapter 6.2.2 also include Food Hygiene.

7 ANIMALS & TEACHING MATERIALS OF ANIMAL ORIGIN

7.1 Preclinical science

7.1.1 Findings

In Anatomy there is an excellent selection of bones (in boxes) for teaching and study purposes.

In 2010 cadavers of 17 dogs, 8 ruminants and 8 horses had been used in anatomical dissections plus organs from pigs and cattle. In addition there were some formalin fixated heads of horses.

There are apparently no dissections on cats and poultry.

7.1.2 Comments and suggestions

Anatomy is taught the traditional way, without, however, covering all important domestic species.

It is suggested to also provide instructions on carcasses of cats and poultry.

7.2 Clinical sciences

7.2.1 Clinical disciplines

7.2.1.1 Findings

The average number of patients presented at the Veterinary Hospital (for reasons of simplicity this term comprises all separate clinical units) across the last three years were 535 large animals (cattle, small ruminants, swine), 131 horses, 8369 companion animals and 278 rabbits/poultry.

The number of patients seen per year at extramural premises by the mobile clinic/ambulatory service amounts up to 1254 large animals (cattle, small ruminants, swine), 124 horses, 69 rabbits/poultry and 129 "other". As is indicated in Annex 1, the denominators established by ECOVE characterizing the exposure of students to patients are well met in respect to the number of companion animal and food animal patients (R12, 15, 16,17), but not in respect to horses (R14) with a denominator of 1.86, which is somewhat below the value of 2.29 established by ECOVE.

Clearly on farm teaching as introduced by FVML also accounts for herd health visits.

As observed during the visit, FVML provides some dogs and two pigs for teaching purposes. However, only one cow and no horses could be identified as propaedeutical animals during the visit.

7.2.1.2 Comments and suggestions

While the number of cattle and pig patients showed a constant increase over the past three years, the number of equine patients has remained constant.

There is a strong suggestion to make the clinical services provided by the FVML more attractive for equine patients.

Similarly the efforts to provide extramural clinical training on food animals should not only be maintained but increased and all support should be provided to establish an Ambulatory Clinic as suggested above (see Chapter 4.4.1.3).

The number of teaching animals housed in the premises of the faculty was considered quite low.

As it is essential for veterinarians to get trained in the handling and examination also of large animals and horses rather early during the curriculum, there is a strong suggestion to increase this stock of teaching animals.

7.2.2 Necropsy

7.2.2.1 Findings

The average number of necropsies for the past three years was 35 for food-producing animals, 325 for companion animals and other and 315 for poultry.

Thus with 2.37 the denominator for necropsies of companion animals is well met, as is with 2.3 the denominator for poultry/rabbits. However, with 0.31 the denominator for necropsies of food animals is below the lower level of 0.96 (see Appendix 1).

7.2.2.2 Comments and suggestions

The number of food-animal necropsies must be increased.

7.3 Food Hygiene

During the curriculum all students are exposed to sufficient material of animal origin. However, the Faculty should increase the number of agreements with establishments to guarantee the practical work in slaughterhouses, especially for cattle.

8 LIBRARY & EDUCATIONAL RESOURCES

8.1 Findings

The FVML has access to two libraries: the main library belonging to the University of Maria-Curie Skłodowska and a small faculty library located in the building “Collegium Veterinarium”. There are also small libraries located in specific departments, with books related to their discipline.

Freshmen are provided with a course to get used to the library database.

The faculty library is open from 8.30 am till 5.00 pm from Monday to Friday. There are 15 places designed for self learning and two computers are available for students.

The library stores 14972 books and 33 titles of veterinary or veterinary related journals published in the last year. Students can borrow these books for one night or for a weekend.

The library provides internet access to virtually all relevant journals; students can log-in their own laptops/computers.

8.2 Comments and suggestions

The library of the FVML is located in the “Collegium Veterinarium” and is certainly inadequate to meet the need of the whole student body and academic staff of FVML. However, students and staff do not complain as there is the main university library belonging to the University Maria-Curie Skłodowska in close proximity which is visited by students in case of not being properly served by the faculty library. This not only accounts for lendable books but also for computer capacity.

As the University of Life Sciences is going to build its own central library, FVML might consider to integrate its own small library with the new facility, hopefully providing ample space and equipment, such as printers, for study.

9 ADMISSION & ENROLMENT

9.1 Findings

At the time of the visit there were 1,060 undergraduate students at the FMVL (37% males and 63% females). The maximum student intake is established each year by the Rector of the University of Life Sciences after consultation with the Council of FVML. There was an increase from about 185 students in 2009 and the previous years to 211 in 2010.

Prospective students apply at the FVML via internet, acceptance is based on a ranking according to the subjects taken and the grades obtained at the Matura (exit exam taken at the end of secondary education). Following ranking about the first two thirds of the students admitted are accepted as Full-time students, the last third is filled up with the so called Extramural students. While Full-time students are free from tuition, Extramural students have to pay a tuition of around 975 € per term for 6 terms.

The average number of students graduating annually is 137. About the same number of students finishes veterinary studies during the established period of 5.5 years (about 72% of the originally admitted students), the drop-out rate is about 15%.

9.2 Comments and suggestions

The recent increase from 185 to 211 of students admitted is not in accordance with the limited capacities of the physical facilities of the FVML, the need to teach in small groups, the limited number of teaching staff and the financial resources of the FVML.

There is a strong suggestion to account for this situation when deciding the number of students to be admitted and to return to the previous number of around 180 students or less.

Although the admissions procedure selects the students with the highest marks obtained in the national Matura exam, this does not necessarily mean that the best and most motivated candidates to study veterinary medicine and to enter the profession had been selected. Although the visiting team recognises the constraints of the regulations governing the intake, it is suggested to develop a mechanism for a more adequate selection of prospective students on the basis of their suitability for veterinary studies, for example an additional entrance examination or an interview.

There seemed to be a general consensus amongst the teaching staff that extramural students are not as well-motivated for the studies as are the full time students and that their academic performance is below average. However, this observation was not substantiated by data and no explanation for any underlying reasons could be given. The FVML is urged to follow this problem and to develop a likely solution.

10 ACADEMIC & SUPPORT STAFF

10.1 Findings

The teaching load for academic teachers (teaching and research obligations) is 240 hrs per year, for lecturers (teaching only) it is 360 hrs per year and for PhD-students receiving a fellowship it is 90 hrs per year.

All academic teachers and lecturers are on full positions. As stated in the SER, Table 10.1, there are 125.3 FTEs with 10 being not “veterinarian”; the respective number for technical staff is given with 193.8 FTE.

With 8.46 and 9.19 the denominators for ratios R1 and R3 set by ECOVE are well met.

As became obvious during the interviews, most of the academic staff has graduated from the FVML. There are four levels of academic teachers. To get promoted not only depends on the availability of a vacant position but also on the achievements in research and to some extent also in teaching. The *habilitation* is an essential condition to get promoted to an associate or a full professor.

There seems to be a strong hierarchical structure which gives little freedom, in particular to the younger academic staff. The need to participate in international scientific meetings to stimulate and promote research can be followed on a low profile only due to budgetary reasons.

The ratio in FTE academic versus technical staff is 0.55 and just below the range established so far (see Annex 1). When interviewed the technical staff complained that positions open are not filled or only with delay and that the workload is shifted to other positions. There seem to be virtually no mechanisms for technical staff to get promoted.

10.2 Comments and Suggestions

While the ratio students vs academic staff (teachers) is below the denominator established so far (R1 and R3, see Annex 1), the denominator of 0.55 for the ratio academic vs technical staff indicates that FVML has a lack of technical staff.

There is a limit to what extent FVML can cope with this situation by increasing the workload of individual technical staff members.

In order to avoid the situation to become desolate, actions should be taken by the FVML and the University to fill all positions open and to assign a few more technical staff positions to the FVML.

11 CONTINUING EDUCATION

11.1 Findings

Until now participation in Continuing Professional Education (CPE) is not obligatory in Poland. However, it is offered on a broad basis and the FVML is very committed. The FVML works together with the Training Centre of the Veterinary Institute in Pulawy, but also with other partners from the veterinary field and the Faculty participates in several programs.

The CPE programs are aimed at practitioners, state veterinarians, specialists, production animal/herd health veterinarians, as well as small animal veterinarians. Particularly newly graduated veterinarians seem to be motivated to participate in CPE. Participation is also stimulated by the well developed Polish system of Veterinary Specialization.

11.2 Comments and Suggestions

CPE appeared to be very well established in Poland, partly due the System of Veterinary Specialization. The FVML is a strong partner in this process.

As strong partner within the CPE-Program the FVML should work towards the aim to make participation in CPE compulsory.

12 POSTGRADUATE EDUCATION

12.1 Findings

Professional track:

Poland has established postgraduate training programs under the responsibility of the profession to specialise in 17 fields of veterinary medicine. So far the European College Diplomate system has not yet been established in Poland. There are no Diplomates and accredited sites for training of interns and residents.

Academic Track:

The Lublin universities have offered a postgraduate program since 1970 and the Council of the FVML possesses the right to give the title of a “Doctor in Veterinary Medicine”.

The postgraduate education or “PhD-program” is handled on the university level and the present regulations concerning admission and program are quite recent (2009).

Students must have passed undergraduate studies with a minimum GPA 4, the official program lasts for 4 years. The classes offered are not specific to veterinary medicine and, as became obvious during the interview with the PhD-students, a student may officially finish this program as soon as his/her thesis has been accepted, e.g. after 2 or 3 years.

10 to 13 students have been enrolled in this program per academic year since 2007. PhD theses defended were 7 in 2007, 10 in 2008, 1 in 2009, and 3 in 2010 (average 5 theses/year).

As requested by the Faculty Council students have to make a minimum of 3 written contributions (papers, congress communications) during the program, but not necessarily in international journals.

Postgraduate students must participate in teaching up to 90 hours per year as long as they get a scholarship which is 10 payments of about 250 € per year. However, scholarships are not easy to obtain. Students not obtaining a scholarship do not have to teach. It is also possible for postgraduate students to be appointed Assistant lecturer with the official teaching load of 240 hours.

A Ph.D. is required by law for promotion to Assistant Professor.

12.2 Comments and Suggestions

Concerning the professional track there is the

Strong suggestion that FVML should try to get into the track of the European Colleges.

Of course this is a difficult enterprise and would require to delegate veterinarians to officially accredited training centers/clinics or to hire diplomats and to try to get accreditation for the own premises for clinical training. Any combination would be possible and according to the projected plans of new clinical facilities, FVML should soon be in a position to make the respective steps.

Concerning the academic track the PhD program presented does not meet international standards and more or less reflects the “old doctorate” study with the thesis being the main part to be accomplished.

This of course is not criticized, however, a PhD program should be structured in a way that a definite number of credits must be acquired during a fixed period of time, e.g. 3 years; it is not possible to drop out with a diploma during this period after the thesis has been completed. It is suggested to adopt the regulations to international standards. In parallel the old “doctorate” program may be run, similarly as in other European faculties.

As is shown in Tables 12.2 and 12.3 of the SER, the underlying course program is structured in a general part (Table 12.2) and a more specific part (Table 12.3). As the general part by far outweighs the specific one, the course contents in the present PhD-program seem in general not well suited to foster research interests of the FVML. The background concerning natural sciences should be strengthened. It is suggested to adopt the course contents to the needs of a PhD with a veterinary background, also in respect to scientific writing. In general FVML should get more involved. Participation of students on national and international conferences and in other laboratories (locally or abroad) should be an inherent part of the program and the respective funds should be made available by the university.

Postgraduate students should also be encouraged to prepare papers in international peer-reviewed journals.

The PhD-scholarship program of a university should secure that students engaged in a PhD program can fully devote their time to their research and the requested course work. This request is not met by FVML. While it is to be accepted that PhD students are at least to some extent involved in teaching, it seems unacceptable that the scholarship provided does not cover basic living cost of a student or that no scholarship or other financial support is provided to some PhD-students.

The university and the FVML should think over their present policy and make a clear distinction between a PhD-program meeting international standards on one side and the more classical “doctorate study” on the other side; the present program seems to be a mixture. In order to achieve this, more funds must be made available for the PhD-program.

Consequently there is a strong suggestion to bring the PhD program to international and modern standards.

13 RESEARCH

13.1 Findings

In general, FVML demonstrates a sufficient level of scientific production. The major part of papers is published in national journals, some are published in internationally indexed (ISI) journals.

Clearly the situation is not homogeneous. In fact there are groups which have reached very good results in the last 5 years and others that are quite weak.

In any case, the involvement of the academic staff in scientific research is also demonstrated by the numerous publications in non-indexed national and international journals. This production is increasing year by year.

The number of academic staff and PhD-students participating on international congresses is not as large as it should be due to limited availability of funding. On a yearly basis members of the teaching staff are obliged to present a report concerning their participation on national and international conferences and congresses. In some disciplines the academic staff published several books or book chapters directed towards the students and the scientific community.

Students are encouraged to perform scientific research on voluntary basis by joining the “Student’s Scientific Organization”. Results originating from these activities are presented since 2008 at the “International Conference of Student’s Scientific Organization”, Sejmic SKN in Wroclaw.

13.2 Comments and Suggestions

Whilst some collaboration with other research groups on an international level became evident, there seemed to be a lack of cooperation and collaboration between the various departmental research groups of the FVML. A coordinated, structured effort should be made to overcome this deficit and to further promote research at the

FVML. This would also be to the benefit of PhD-students, e.g. to further develop their projects and knowledge.

The FVML should make every possible effort to support their younger researchers (junior staff) and to offer them the best conditions (funding, period abroad, responsible position in research project, etc.) to reach a high scientific standard and to rapidly develop their capabilities.

In the present curriculum there is no compulsory participation/performance of students in research projects. However, on a voluntary basis students are encouraged to join the “Students Scientific Organization” and to participate in research projects performed at various departments. This is quite well accepted by a number of students, who get an excellent exposure to scientific research. However, FVML should secure that also the remaining students are confronted with a critical mass of scientific exposure in order to educate the future veterinary graduate to a science - based professional.

EXECUTIVE SUMMARY

General Organization and Finances

The faculty of Veterinary Medicine Lublin (FVML) was founded in 1944 and approved in 2005. It is 1 of the 7 faculties of the University of Life Sciences. The underlying organisational structure allows for a responsible participation of all groups (professors, other academic staff, students, technical staff) in the decision making process, with the Rector, however, being in a strong position.

Funding of the University is through the Ministry of Science and Higher Education and a distinction is made between funding of “statutory”, i.e. legally required activities (DS) and research activities (BW). Allocation of funds follows a mathematical model, extra fund may be available for major investments.

Though it has to be acknowledged that the FVML is trying to use the funds allotted in a highly prudent way, deficits due to a lack of financial support clearly become obvious concerning the teaching environment; thus proper equipment for practicals, also teaching students biosecurity, is missing in a number of cases. There is a lack of teaching animals and due to the apparent need for a second job, some academic staff - particularly in the clinical sciences - is engaged in private practice which is contra-productive in view of the official duties in teaching and research.

The rectorate and ministry should account for this situation and it is strongly suggested to increase the budget and monetary support of the FVML.

Organization of the FVML is highly diversified with apparently too many departments and sub-departments. Each department or sub-department head is solely responsible for teaching a given subject and – in spite of some efforts – there is a lack of cooperation and coordination of teaching. This also accounts for the cooperation with

teachers from other faculties largely covering the field of Animal Production. There is little evidence that teaching is based on a problem-solving approach with a strong scientific background.

There is a strong suggestion to reduce the number of departments and to consider the suggestions made in Chapter 6 concerning the future clinical structure.

Curriculum

The curriculum is a one tier program without tracking. However, students must select from an array of electives. There are no electives in the field of Animal Production and Food Hygiene and it is suggested to develop electives that show true cooperation between the disciplines of Animal Production, Animal Welfare, Preventive Veterinary Medicine and Veterinary Public health.

The curriculum, however, meets the demands of Directive 2005/36/EC and there seems to be a good a balance between the various types of teaching. Though not optimal, this statement also includes hands-on clinical training due to the recent addition of an 80 hrs practical in a veterinary clinic (Chapter 4.4.1.1). However, participation of students in the 24 hours emergency service is not compulsory.

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Teaching and physical Facilities

The academic staff applies an up to date spectrum of teaching methods. However, the teaching environment in respect to facilities and instruments available gives rise to concern in respect to safety and biosecurity.

Thus apart from a few exceptions premises and facilities dedicated to Basic Sciences and Veterinary Public Health should be improved and renewed. Conditions of the dissection rooms of Anatomy were valued as not acceptable. When refurbishing some of the premises, biosecurity and safety should be taken in account in order not to expose students and staff to any biological and non biological risks.

The clinical facilities split in 4 parts based on the former discipline organization (internal medicine, surgery, reproduction, infection diseases). Apparently management responsibilities have not changed while teaching has started to be species orientated. The whole organizational structure is somewhat obscure. For example there are 2 ambulatory receptions for companion animals (Internal Medicine/Surgery, Infectious Diseases) with ophthalmology and stomatology being part of Infectious Diseases. Drugs are handled differently between departments and the only up to date laboratory for clinical-chemical analysis was found in the Department of Infectious Diseases which – apparently – seems to be the only user.

Nevertheless, in spite of the underlying complexity the present clinical organization seems to allow for an adequate clinical education of students. However, it is all but a shining example how a university animal hospital should be.

Thus there is a strong suggestion to completely restructure the organization in parallel to building the new clinical facilities for large and small animals (see below).

The “Vivarium”, the most recent addition to the clinical facilities, can be considered excellent in respect to equipment, maintenance and biosecurity.

FVML has a new and well equipped van for the mobile clinic, they have other vans to transport students and trailers to haul animals (pick up from farms).

Also the X-Ray unit is well suitable for imaging of small animal patients. However, due to the access it will be difficult to bring in large animals (horses, cattle). All the other facilities show wear and tear leading to some in part not acceptable situations.

Not to start some immediate renovation can only be accepted as the proposition looks good that two new clinical buildings, one for small and one for large animals, should be available within a reasonable length of time.

Yet, regardless of these expectations, minimum clinical standards must be maintained in the old facilities.

In general there is a lack of biosecurity. This particularly accounts for the maintenance of “clean” and “not clean” areas in respect to surgery theatres due to the inter-crossing pathways and in particular to the non functioning state of the isolation units.

Organization of the handling of animal drugs is a matter of FVML. However, whatever system is applied, the storage of drugs should be separate from other equipment (i.e. a refrigerator must be used for drugs only!)

Further strong suggestions are:

- **to improve the intensive care facilities for companion animals**
- **to stop use the large animal surgery table at the Dept. and Clinic of Animal Surgery**
- **to improve access for large animals to the X-Ray unit**

Teaching and teaching environment

Though self-learning as defined by EAEVE and E-learning have not yet really been established, the teaching environment – apart from the aspects of biosecurity and safety – can be considered good.

Classes are broken down to adequate student numbers in practicals and hands-on clinical training, the examination system – though not innovative – seems to be well accepted as is the evaluation of teachers by students.

However, apparently no precautions have been taken to improve the situation for disabled students to participate in the educational process. The FVML in cooperation with the University should try to change this situation.

Animal and teaching Material of Animal Origin

The FVML must be granted great respect for having organized an excellent hands on clinical training on food animals which is largely based on training on extramural premises.

In general there seems to be a sufficient supply of teaching material of animal origin, the few remarks relate to the following aspects:

Anatomy: It is suggested to also provide instructions on carcasses of cats and poultry.

Equine patients: **There is a strong suggestion to make clinical services more attractive for equine patients.**

Teaching animals: **There is a strong suggestion to increase this stock of animals.**

Necropsy:

There is a good load of small animal necropsies, while the number of food animal necropsies is considered somewhat insufficient (see R18). FVML should develop a common effort to increase this figure.

Library

Situation considered satisfactory.

Admission and Enrolment, Staff

From the many students applying those with the best high-school exit exams (Matura) are accepted following a ranking. While the first 2/3 accepted are "Full-time students" (no tuition), the last third students are considered as "Extramural students" who have to pay tuition for the first 6 semesters.

There is an acceptable drop-out rate (~ 15%) and most of the students graduate in due time.

The number of students admitted is decided by the Rector and the recent increase from about 180 to 211 students was not found in accordance with the limited capacities of the physical facilities of the FVML, the need to teach in small groups, the limited number of teaching staff, distinct shortage in technical support staff and the financial resources of the FVML.

There is a strong suggestion to return to the previous number of about 180 students or less.

Additionally it is suggested to develop a mechanism for a more adequate selection of students on the basis of their suitability for veterinary studies.

Actions should be taken to assign a few more technical staff positions to the FVML and to rapidly fill all open positions.

Continuing Education

FVML is a strong partner within the CPE program offered in Poland. FVML should work towards making CPE obligatory in Poland.

Postgraduate Education

Professional track: Poland has established postgraduate training programs under the responsibility of the profession (17 specialties). The European Diplomate system, however, is not yet established.

There is a strong suggestion that FVML should try to get onto the track of the European Colleges.

Academic track: The PhD program presented does not meet international standards and more or less reflects the “old doctorate” study with the thesis being the main part to be accomplished.

This of course is not criticized, however, a PhD program should be structured in a way that a definite number of credits must be acquired during a fixed period of time, e.g. 3 years; it is not possible to drop out with a diploma during this period after the thesis has been completed. It is suggested to adopt the regulations to international standards. In parallel the old “doctorate” program may be run similarly as in other faculties in Europe.

There is a strong suggestion to bring the PhD program to international and modern standards.

Research:

FVML demonstrates an acceptable level of scientific production. The major part of papers, however, is published in national journals.

The funds to allow the especially younger academic staff to participate on international meetings and to seek for international cooperation should be increased.

In the present curriculum there is no compulsory participation of students in research projects. However, on a voluntary basis students are encouraged to join the “Students Scientific Organization” and to participate in research projects performed at various departments. This is quite well accepted by a number of students, who get an excellent exposure to scientific research. However, FVML should secure that also the remaining students are confronted with a critical mass of scientific exposure in order to educate the future veterinary graduate to a science - based professional.

Concluding remarks

FVML must be granted great respect for having made remarkable progress in several fields in the last years. This particularly accounts for the new structure of hands on clinical training in the food animal sector and the inclusion of private farms and other institutions on a contractual basis for teaching Animal Production and Food Hygiene.

Also some new clinical facilities were added and there is the realistic chance that a new Animal Hospital will be available within a reasonable length of time.

All academic and non-academic staff and students showed a high engagement and enthusiasm.

Annex 1: Ratios

No	Direction	Type	Fraction	Denominator	
				Faculty	ECOVE (2009)
R 1:	UL	$\frac{\text{no. total academic FTE in veterinary training}}{\text{no. undergraduate veterinary students}}$	$\frac{125.3}{1060}$	8.46	9.11
R 2:	UL	$\frac{\text{no. of total FTE at Faculty}}{\text{no. undergraduate students at Faculty}}$...-...	does not apply	
R 3:	UL	$\frac{\text{no. total VS FTE in veterinary training}}{\text{no. undergraduate veterinary students}}$	$\frac{115.3}{1060}$	9.19	11.22
R 4:	UL	$\frac{\text{no. total VS FTE in veterinary training}^{3)}}{\text{no. students graduating annually}}$	$\frac{115.3}{137}$	1.19	2.54
R 5:	Ra	$\frac{\text{no. total FTE academic staff in veterinary training}}{\text{no. total FTE support staff in veterinary training}^{3)}}$	$\frac{125.3}{68.5}$	0.55	0.58 - 2.11
R 6:	LL	$\frac{\text{Theoretical training}}{\text{Supervised practical training}}$	$\frac{1964}{2326}$	1.18	0.59
R 7:	UL	$\frac{\text{Clinical Work}}{\text{Laboratory and desk based work + non-clinical animal work}}$	$\frac{349}{1977}$	5.7 ¹ 4.6 ²	2.12

¹ Includes 3hrs deducted from electives

² Includes 80 hrs contracted extramural work

No	Direction	Type	Fraction	Denominator	
				Faculty	ECOVE (2009)
R 8:	Ra	<u>Self directed learning</u> Teaching load	...-...	does not apply	
R 9:	Ra	<u>Total no. curriculum-hours Food Hygiene / Public Health</u> Total no. hours vet. Curriculum	$\frac{300}{4310}$	14.4	6.00 - 42.26
R 10:	Ra	<u>Total no. curriculum hours Food Hygiene / Public Health</u> Hours obligatory extramural work in Veterinary inspection	$\frac{300}{4310}$	0.53	0.05 - 0.82
R 11:	LL	<u>no. of students graduating annually</u> no. of food-producing animals seen at the Faculty	$\frac{137}{535}$	3.90	2.03
R 12:	LL	<u>no. of students graduating annually</u> no. of individual food-animal consultations outside the Faculty	$\frac{137}{1254}$	9.15	8.94
R 13:	LL	<u>no. of students graduating annually</u> number of herd health visits	$\frac{3}{}$		0.41
R 14:	LL	<u>no. of students graduating annually</u> no. of equine cases	$\frac{137}{255}$	1.86	2,29
R 15:	LL	<u>no. of students graduating annually</u> no. of poultry/rabbit cases	$\frac{137}{287}$	2.1	0.41
R 16:	LL	<u>no. of students graduating annually</u> no. of companion animals seen at Faculty	$\frac{137}{8369}$	61.1	51.34
R 17:	LL	<u>no. of students graduating annually</u> Poultry (flocks)/rabbits (production units); seen	$\frac{137}{69}$	0.5	0.09
R 18:	LL	<u>no. of students graduating annually</u> no. necropsies food producing animals + equines	$\frac{137}{42}$	0.31	0.96

³ accounted for by „on-farm-teaching“

No	Direction	Type	Fraction	Denominator	
				Faculty	ECOVE (2009)
R 19:	LL	no. of students graduating annually _____ no. necropsies poultry/rabbits	$\frac{137}{314}$	2.3	0.40
R 20:	LL	no. of students graduating annually _____ no. necropsies companion animals	$\frac{137}{325}$	2.37	1.73

UL = upper level, LL lower level, Ra = range

Annex 2: Listing of Major Deficiencies and Decision by ECOVE

1. Absence of isolation units.
2. Overall insufficiency of a bio-security and bio-safety concept.
3. Insufficient functioning of the emergency service with inconsistent involvement of students.
4. Lack of an institutional pharmacy combined with improper storage and access to drugs.

Status of the faculty: NON APPROVED

Annex 3: Report of Student (was incorporated into report)