

**European Association
of Establishments for Veterinary Education**

**Association Européenne
des Etablissements d'Enseignement Vétérinaire**



**REPORT on the STAGE-1 EVALUATION VISITATION to the FACULTY of
VETERINARY MEDICINE and the FACULTY OF VETERINARY HYGIENE
and ECOLOGY, BRNO, CZECH REPUBLIC**

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INTRODUCTION

The University of Veterinary and Pharmaceutical Sciences of Brno (UVPS Brno) was initially founded in 1918, it was incorporated as a Faculty of the Agricultural School in 1952 and in 1968 it regained its independence. In 1975 a separate study course in public health (labelled “Veterinary Hygiene and Ecology”) was established which led in 1990 to the division of the Veterinary School into two Faculties: the Faculty of Veterinary Medicine and the Faculty of Veterinary Hygiene and Ecology. A third faculty, Faculty of Pharmacy, was added in 1991, which allowed the School to gain university status.

Both the Faculty of Veterinary Medicine (FVM) as well as the Faculty of Veterinary Hygiene and Ecology (FVHE) offer a 6-yr degree programs leading to a veterinary diploma which allows graduates of both faculties to practice as full-fledged veterinarians. The two degree courses in VM and VHE are offered both in Czech and in English. Applicants for the admission test for the Czech courses are mostly Czech although there is also a fair amount of Slovak students, thanks to the remarkable similarities between Czech and Slovak languages. Applicants for the English courses come from the Nordic countries but also some Southern European countries such as Spain, Israel, Greece, and Cyprus. The FVHE also offers (non-veterinary) bachelor and master’s degree programs in food safety and animal welfare.

The UVPS Brno is the only institution in the Czech Republic to provide veterinary education. The Czech Republic has a population of approximately 10.5 million and a GDP per capita of 18.57 dollars. There are approximately 3600 veterinarians in the country, of which <1000 are State employees and the remaining are mainly working in private practice or in the food hygiene/public health sector. The animal population of the Czech Republic is portrayed in Table n° 1.

<i>Animal species</i>	<i>Number</i>
Cattle (dairy 380, beef 180)	500.000
Pigs	1.900.000
Horses	60.000
Sheep	220.000
Goats	24.000
Dogs	1.800.000
Cats	700.000
Rabbits	500.000
Exotic birds (breeders)	10.000
Reptiles (Snakes, Turtles)	200.000

Table n° 1 – Population of domestic and wild animals in the Czech Republic

The UVPS Brno has already been positively evaluated twice by EAEVE, in 1995 and 2004. According to the Czech Government undergraduate education has to be accessible from anybody irrespective of financial possibilities; therefore, registration fees for academic studies are very low (although there is a restriction to enrolment for some courses of study in the Czech language including Veterinary studies – see Chapter 9).

Major changes in training and organization of the two faculties since the last evaluation in 2004 include the following:

- Elaboration of the Long-term Strategic Plan for 2011-2015, including yearly updates, yearly reports and assessment of quality of training
- Establishment of an advisory committee to the Rector called Veterinary Training Board
- Slight increase in State funding, and a net increase in external financing. This has allowed for a 20% increase in teacher’s salary and a remarkable investment in structural modernization of many buildings (see list on pages 14-15 of SER-1) and improvement in facilities for veterinary training.

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- Curricular modification with stronger emphasis on a) small animals and horses for VM and food hygiene and livestock medicine for VHE; b) day-1 skills; c) e-learning and problem-based learning; d) evaluation of quality of teaching; e) student welfare.
- An English curriculum being offered as of 2004-2005 (only VM) and 2010-2011 (both VM and VHE).
- Important services such as a Training Center for Avian Medicine (in collaboration with the University of Vienna) and a Mobile Clinic for ruminants

The visitation was very well organized and every Faculty member was extremely open and transparent when further information was needed. The SER was well written, very informative and full of interesting pictures. The Team was treated extremely well, the hospitality was excellent and the atmosphere was always very friendly and pleasant.

1 OBJECTIVES & STRATEGY

1.1 Findings

Major objectives and goals of UVPS Brno are formulated in the SER. UVPSBrno has regularly produced a Strategic Plan (SP) since 1990. The current (2011-2015) SP is briefly summarized in the SER with no reference to its location on the UVPS Brno website. In fact, the SP document is only present in the Czech web site, not in the English one. Upon request, the Team was quickly provided an English version of the current UVPS SP as well as the SP of both faculties (although the SP of the FVM and FVHE were produced using a Google translator, and therefore they were not always completely clear).

The mission of UVPS Brno is to educate professionals in veterinary medicine, pursue advanced research qualifications and provide lifelong learning. The most important overall goals of the UVPS Brno are international recognition, veterinary education, research, expanding its English curriculum, strengthening academic autonomy, increasing its finances and continuing the improvement in the quality of its premises and equipment. Annual Reports of the SP are produced by each faculty as well as the University allowing for a periodic review and assessment of goal achievement.

The objectives cover the education programme adequately, particularly considering that the main scope of the UVPS Brno is to train veterinarians. A strong emphasis on research and teaching is evident in chapter 1 of the SER. Both faculties of the UVPS Brno have invested a considerable amount of time and energies in revising the curriculum and elaborating strategies to stimulate high quality research. A vision statement is not present in the SER or on the Faculty web site.

1.2 Comments

When looking at the previous EAEVE visitation report, it is interesting to note that most of the 2004 objectives of the UVPS Brno have been achieved:

“The FVM wants to intensify its research effort in the biomedical sciences and make the clinics into a top level reference hospital. The technical infrastructure has to be increased. A further objective is a clear international orientation, not only at the level of the EAEVE but also full participation in the Bologna Declaration and all associated practical implications. The Faculty also wants to participate in international projects. The FVHE has similar goals in terms of improving quality in teaching and research and international orientation. A specific goal is to increase the number of students. In addition to the educational aspects, a link with the European food administration agencies is sought. The FVHE plans a number of reconstruction and modernisation projects. A specific objective is the improvement of the laboratory animal sector. “

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The 2 faculties of VM and VHE must be commended for being successful in their long-term planning over the last decade thus fulfilling the majority of their goals. Also, a long-standing tradition in elaborating a Strategic Planning document is certainly a valuable asset, although the SP document of both faculties is not of the same quality of the SP of the UVPS. As part of the text of the SP of both faculties has been derived from the SP of the UVPS Brno, and considering the fact that only a Google translation was available for the SP of the two faculties, what follows is a general comment of the 3 documents together.

In general terms, the SP document is a rather superficial description of what the faculty is and a rather limited list of wishes for the future. There is a) no attempt at analysing why and how the two faculties have developed some weaknesses, b) no attempt at identifying a strategy for tackling and solving these weaknesses, c) only a limited setting of specific goals, and d) no setting of intermediate targets and check points in time. In its current format, the SP document elaborated both by the UVPS as well as by the two faculties is of little value for the advancement of UVPS and its two faculties. The mission is limited to teaching undergraduate veterinary students and performing research; lifelong learning is mentioned, although Veterinary Faculties in the Czech Republic can do this only for State Veterinarians and not for practitioners (for which the Veterinary Chapter is the only authorized provider of CE). The mission of a Veterinary School should have a wider breath and be focussed on the many aspects of our profession, such as for example the role to be played in the society on issues such as the One Health concept, nature and wildlife conservation, the teaching of all aspects of Veterinary Medicine, or the provision of services to its stakeholders etc. Although research and teaching are strategic tasks for a Veterinary Faculty, it would be reductive to concentrate only on these aspects. The UVPS Brno should produce a holistic Strategic Plan.

Also, while the first two items of the mission (education and research) are important short as well as long term points, it is clear that the importance of having a Vision is not fully grasped at the Faculty as well as at the University level. The UVPS Brno Strategic Plan does not try to anticipate future needs and potential crisis of the society at large. A closer look from the UVPS Brno at specific problems potentially faced by our profession would be advisable.

Objectives are lumped together and not prioritized, some concepts are repeated and some are missing and apparently there is no method for their periodic review or for assessing their achievement. Furthermore, there is no mention of the importance of

- a) enabling students to think critically and work independently as practitioners with domestic animal species through an increased adoption of problem-based and case-based teaching
- b) being active at the political level to promote animal and human health;
- c) assess needs and expectations of our society thus identifying services to be provided to the public.
- d) having a vision on guidance of incoming students and postdocs
- e) establishing outreach programs, etc.

Fulfilling public needs refers to providing consultations to public and private bodies and enterprises on both the major (animal diseases, animal welfare, food safety, veterinary public health) as well as minor (but not less important) issues facing our profession such as veterinary education, veterinary specialization, veterinary economics, European veterinary legislation etc. Although both veterinary faculties at UVPS Brno are active in many (but not all) of these fields, the UVPS Strategic Plan document probably fails to point that out to its students, faculty members as well as (and perhaps more importantly) the public and stakeholders in general the importance of its role.

Vision refers to the capacity of looking into the future and getting a perspective of what will be our reality in 10, 20 or 50 years, and through this being capable of anticipating what a changing society will need from our profession as well as foreseeing potential crisis or future developments of the veterinary profession. As such, a vision statement is not present in the SER or on the Faculty web site.

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The list of strengths and weaknesses is fairly elaborate but is missing some important items both as strengths (i.e. the work both faculties are doing on game animals and on bees or the fully approved slaughter house of the FVHE) as well as weaknesses (i.e. the fragmentation of scientific and teaching activity into several departments with little centralized management, or the openly admitted fact among staff members that the term *Veterinary Hygiene and Ecology* is not immediately understandable to the public and perhaps should be changed).

Unless goals are set and intermediate targets and check points in time are established, the value of a Strategic Plan (whose benefits may become particularly evident when difficult times come such as during a financial crisis) will be very limited.

A stronger emphasis on providing services to the society as well as on achieving a better coordination of departmental activities should be present in the Strategic Plan. The FVM and FVHE have invested a lot in terms of time and energies in revising the curriculum and improving the conditions of their buildings and equipment, but not as much has been done in elaborating strategies to stimulate cooperation and coordination among faculty members. Also, an assessment of learning outcomes of the new curriculum based on the changing needs of the veterinary profession should be done by sending out a survey to FVM and FVHE alumni. This will help assessing the impact of the current curriculum and revising it in the future.

It is the opinion of the team, that the requirements regarding Objectives & Strategy as they are laid down in Annex I of the SOP are met.

1.3 Suggestions

- 1.3.1 The team acknowledges the Faculty for the development of the Strategic Plan 2010-15 however, the mission objectives are not well defined or prioritized; it has also some limitations for the need of a stronger emphasis on a vision of the future, the provision of services to stakeholders as well as on setting goals, intermediate targets and check points in time.**
- 1.3.2 It would be advisable to include in the next Strategic Plan Committee a representative of the stakeholders (students, animal owners/breeders, pharmaceutical companies, animal feed industries etc.)**
- 1.3.3 A holistic Strategic Plan should be elaborated.**
- 1.3.4 For a better adaptation of the objectives of the FVM and FVHE to the society requirements, the two faculties could develop a survey to be sent to all veterinarians from or working in the Czech republic to assess the changing needs of the profession.**
- 1.3.5 The term *Veterinary Hygiene and Ecology* should be changed to a definition which is widely recognized across Europe: **Veterinary Public Health****

2 ORGANISATION

2.1 Findings

The University of Veterinary and Pharmaceutical Sciences (UVPS), Brno, Czech Republic is one of 26 public universities in the country, but the only one providing veterinary education and one of 2 providing pharmaceutical education. The Ministry of Education, Youth and Physical Education (MEYPE) is the government department responsible for universities and is also their funding body; its Accreditation Board oversees the quality of university education and every study programme must be periodically re-accredited.

The UVPS is managed by the Rector and his staff and consists of 3 Faculties; its internal structure is dealt with in detail in SER1 Chapter 2. Veterinary training is provided by the Faculty of Veterinary

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Medicine (FVM) and the Faculty of Veterinary Hygiene and Ecology (FVHE); SER1 explains that FVM undertakes and warrants a study programme in the clinical veterinary medicine track, with the emphasis on companion animals, while FVHE undertakes and warrants a veterinary study programme in the track of food hygiene and clinical veterinary medicine of food animals (in particular ruminants and pigs). To quote from the SER "The faculties cooperate closely and the level of integration between them is high" and "There is a high level of integration between the faculties and UVPS". Administration, financial management and maintenance of the built estate are dealt with by the Rector and the central administration; the Faculties are responsible for education, research, academic and specialised veterinary and food hygiene activities.

The differentiation of veterinary training into 2 tracks has been in place since 1975, but it was not until 1990 that 2 veterinary Faculties were established and it is stated that the purpose of this change was to give the University external credibility and better access to funding, to strengthen its independence and support its internal stability.

Each Faculty is managed by a Dean and 2 Vice Deans. Each has a Registrar and its self-governance is conducted through its Academic Senate, its Science Council and a number of advisory bodies. Within each Faculty there are 4 Sections, each with a number of Departments/Clinics. A Veterinary Training Board was recently established as an advisory body to the Rectorate.

It is the opinion of the team, that the requirements regarding Organisation as they are laid down in Annex I of the SOP are met.

2.2 Comments.

On the one hand, the SER emphasises the close integration between the University and the 2 veterinary Faculties, each of which has its own governing body; on the other hand, an overarching Veterinary Training Board has recently been established, presumably to improve integration of veterinary education. And the Team have been made aware of some criticism, both from within and outside the University, of disparity between the 2 veterinary courses (which result in the award of the same degree) and, therefore, in the demonstration of first day skills by graduates, especially those who complete the FVHE course, but enter companion animal practice on graduation.

2.3 Suggestions.

2.3.1 It might be advantageous for the Rectorate to establish a commission (with representation from MEYPE and stakeholders) to examine the governance of the University, with the aim of optimising both its governance and the integration of its differentiated courses. Maintenance of the University's funding stream for veterinary education would be an issue; this is addressed in Chapter 3 of the Report.

3 FINANCES

3.1 Findings

The University of Veterinary and Pharmaceutical Science (UVPS) of Brno derives its funding from a number of sources, but the major part of its budget is covered by funds allocated by the Ministry of Education, Youth and Physical Education (MEYPE) for veterinary education and research. Of this amount, 80% is determined on the basis of a standard amount per student, applicable to all Universities, and 20% is based on a national scoring system of performance indicators reflecting the extent and quality of the scientific publications of the institution. This funding is calculated separately for each Faculty of the University.

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A coefficient of 3.5 is applied to the standard *per capita* allowance for veterinary students, but it should be noted that, though the relevant coefficient for students of Law is 1.0 and for human medicine 2.8, the coefficient for Arts students is 5.9. The MEYPE also provides capital funding for new buildings and the refurbishment and modernisation of existing ones. The UVPS bids for such funding on a case by case basis and, as the SER acknowledges, has been successful in recent years in obtaining huge amounts of capital funding – well in excess of other institutions, relative to its size.

The SER-1 gives details of a number of other sources of funding for education and research, including some from veterinary services provided by UVPS itself and some directly from students - for study exceeding the standard study period and for those on the English language course.

Because certain income streams are specifically designated for research, there are no problems in the distribution of funds between training and research and UVPS Brno has considerable autonomy and flexibility in the apportionment of its budget, so that there is some opportunity – within the constraints of national standards – for incentive and performance-related payments to staff.

The overview of income and expenditure provided in the SER 1 (Table 3.1 p. 37) indicates that, with regard to veterinary training, there was a small surplus of income over expenditure in the past 3 years. Like almost all veterinary Faculties, the UVPS Brno regards the funding allocated to it by MEYPE for veterinary education as inadequate and, as more funding to be made available, highlights raising the salaries of staff involved in veterinary teaching as a major priority. However, it is acknowledged in the SER that the University has no problem in filling academic posts and the relevant ratios indicate that staff/student ratios are well within the accepted parameters.

It is the opinion of the team, that the requirements regarding Finances as they are laid down in Annex I of the SOP are met.

3.2 Comments

The UVPS Brno comprises 3 Faculties, of which 2 provide veterinary training. Both veterinary Faculties award the same DVM degree, though the courses of veterinary training are different. The Team were told that this (perhaps unprecedented) situation exists partly for historical and partly for financial reasons. But it appears to be an artificial separation, because in the calculation of ratios for the main indicators, only 5 of the 20 parameters are calculated separately for the 2 courses, implying that combined figures for teaching staff, students etc. have been used for 15.

The coefficient applied to *per capita* funding for veterinary students deserves comment; given the small number of veterinary students relative to students of the arts in the Czech Republic, a substantial increase in the coefficient for veterinary students would have little impact on the total budget of MEYPE, but could make a noticeable difference to the budgetary allocation to UVSPB. Arguing for an increase in the coefficient would be difficult if the existing coefficient were already the highest but, given that Arts students attract a coefficient over 50% greater than that applied to veterinary students, there should be scope for negotiation.

3.3 Suggestions

3.3.1 The Team recommends that serious consideration should be given by the University administration to amalgamation of the 2 existing veterinary Faculties into one Faculty offering 2 integrated but differentiated veterinary courses leading, as at present, to the same degree. Such consideration should balance the loss of funding consequent on a reduction in the number of Faculties with the reduction in running costs, administration and duplication of effort inherent in the existing structures. Such a reorganisation would also facilitate progress towards effective audit and accreditation of an (integrated but differentiated) undergraduate course.

- 3.3.2 Representations should be made to MEYPE, supported by calculations of the actual *per capita* costs incurred by UVPSB in the training of veterinary undergraduates, for a substantial increase in the coefficient applied for veterinary students.**

4 CURRICULUM

4.1 GENERAL ASPECTS

4.1.1 Findings

In the Czech Republic, the veterinary curriculum must be in accordance with Act No 166/1999 Coll., on Veterinary Care, which implements Directive 36/2005/EC. The veterinary curriculum at the UVPS has been developed keeping in mind also other EU directives (i.e. on food safety) as well as EAEVE recommendations: it lasts 6 years in both veterinary faculties of the UVPS and leads to the same veterinary degree. There are no prerequisites for practicing the profession upon gaining the degree. The veterinary diploma delivered by both veterinary faculties opens to the practice the profession in all specialities of the veterinary medicine. The curriculum for English speaking students is similar to the Czech curriculum and leads to the same veterinary diploma.

Generally speaking, all topics of the EU listed objects are included in the curriculum. They all include both a theoretical and a practical part. The amount of practicals is sufficient and the balance between lectures and practicals is appropriate. All indicators of the SOP are fulfilled, intensive hands-on training was noticed during the clinical training in small groups in all species.

The curriculum includes a large number of electives (among which the students have to follow a certain number during their studies; so-called "compulsory elective courses") as well as extramural work. Extramural work arrangements have been made after consultation of the partners of the profession and stakeholders. The assessment of the students is made by the responsible person in the corresponding institution (e.g. owner of the veterinary practice).

As in many other European universities, the veterinary curriculum at both faculties of the UVPS Brno is not organized according to the Bachelor-Master system. However, the UVPS does follow the Bologna system for the non-veterinary programs offered by the FVHE.

4.1.2 Comments

In the new curriculum, there is ample evidence that the basic subjects and sciences are taught to provide the direct basis for the clinical subjects. A good example is animal genetics which is also incorporated to some extent in the clinical subjects.

This is also reflected by the various elective subjects provided by the basic disciplines, which link the basic disciplines and the clinics in specific areas. However, in some modules the link to the clinics is not directly obvious,

The description of the curriculum and the facts and figures included in the SER (and implemented in the teaching and training of the students) correspond to the EAEVE requirements,

It is the opinion of the team, that the requirements regarding General Aspects of the Curriculum as they are laid down in Annex I of the SOP are met.

4.1.3 Suggestions

None

4.2 BASIC SUBJECTS&SCIENCES

4.2.1 Findings

In both programmes, the basic subjects are covered as part of the core curriculum in year 1. These subjects are each providing 2 credits and passing the brief written exams in these subjects is a prerequisite for progression, i.e. to obtain the credits. Specific emphasis is laid on Chemistry and Biology in so far, as all applicants to the course have to take an entrance exam that in part covers knowledge of these two subjects (see Admission).

The modules are delivered by staff of the Faculty of Veterinary Hygiene and Ecology (FVHE) and all comprise both lectures and practical sessions. In the new (2012) curriculum some topics such as Biophysics, Chemistry, Animal and Plant Biology have been reduced substantially (30%-50%). Staff in Biophysics and Chemistry express their concerns as to the amount of essential basic knowledge that graduates will now be lacking due to these cuts. There is a good proportion of theory and practice in all courses. The Biology module also incorporates basic genetics which is aligned with the Animal Genetics taught in the later separate 'Clinical Genetics' module. With 4 credits, Biostatistics carries the highest weight in comparison to the 2 credits of all other modules of the Basic Sciences.

Preclinical subjects

Teaching of these subjects takes place in years 1-3. All subjects in the EAEVE list (*) are covered, as discussed below. Most modules are taught in the same manner to both FVM and FVHE students. If not, this is indicated with the module. The listed subjects make up a total of 67 credits. Anatomy I and II and Histology and Embryology I and II have been increased minimally (6h) in the new curriculum to a total of 314h (14 credits), with a larger percentage taken by practicals than by lectures. In the practical training, there is clear evidence that the students are exposed to sufficient animal material (carcasses, fresh and processed organs and tissues). The processed material (entire carcasses of pigs or calves or small animals for dissection by a group of students) is formalin-fixed and flushed prior to use. Physiology is taught in two modules (I and II), plus a third module in year 2, Pathophysiology, which is meant to link between physiology, pathology and clinics, covering aspects also of general and clinical pathology as well as pathogenesis. Also in physiology the teaching of all modules has a strong practical aspect, i.e. more time is allocated to practical training than to lectures. The students undertake non-invasive techniques, ECG etc. mainly on guinea pigs, but also on Faculty dogs and their own dogs and cats. The teaching in Physiology was reduced by 22% from the old to the new curriculum, and the lecturers have consolidated their teaching in response to this. Anatomy and Physiology teachers are from the FVM.

Biochemistry teaching was also reduced by about 20% in the new curriculum. The staff assured that with this 20% reduction they are still able to cover the necessary material, by mainly consolidating the practical sessions and keeping the information to the essential minimum. Clinical genetics and Special genetics (FVM and FVHE, respectively) are taught in year 3 and comprise 42h (28h lectures, 14h practicals) and gain 4 credits. They are taught by members of FVM. The module is closely linked with other modules, i.e. animal breeding and husbandry, shown by the fact that lecturers also contribute through individual lectures to the clinical and paraclinical curriculum.

Pharmacology and Pharmacy are taught by members of FVM. The recent changes of the curriculum did not affect the amount of teaching in these subjects. An interesting aspect of the training in this area are the practical classes in 3rd year which comprise a substantial amount of laboratory animal work with both rabbits and rats, i.e. handling, drug administration, anaesthesia. The animals are kept in specific housing in the Department (with specific license). They are bought in for the purpose of teaching (for example 65 rabbits per year) and generally go for adoption by the students after the course. Toxicology is taught by members of FVHE. Students undertake a large amount of practical work and complete the course with some case studies ('problem-oriented learning'), which puts the

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course into the clinical context and trains students to use their problem solving skills. Since the unit also provides a diagnostic toxicology service and maintains an electronic veterinary toxicology database (VETTOX), it provides a close link to clinical training.

Microbiology is taught in two modules (I and II) at year 2. Microbiology/infectious diseases have a heavy weight in the curriculum, as they are also taught in the final years, as a large module culminating in the final state examination in a module called 'Infectious diseases of animals and legislation'. The modules are taught by members of FVM. Immunology (year 2 and 3): 54h (each 50:50 lectures and practical training) is taught by members of FVM. It has been moderately reduced in the new curriculum. While it is taught as a separate subject in the context of infectious diseases, some basic immunology is taught in Physiology/Pathophysiology. Specific contents are aligned.

General epizootology represents epidemiology; its teaching was reduced minimally in the new curriculum. For all basic subjects and basic sciences modules, the practical work is undertaken in groups of maximum 12-13 students, with further smaller groups of 2-3 students for many practical procedures. The group sizes as well as the type and extent of practicals appear adequate.

4.2.1 Comments

Presently, it cannot be assessed whether there will be any consequence of the decreased teaching load in Biophysics and Chemistry on the students' success in the clinical years and their capability as veterinarians, since students of the new curriculum have not yet entered their clinical years yet. The assessment for both topics has changed as well, from a full oral examination at the end of the module, to a relatively small multiple choice question examination (20 questions). However, the pass rate is apparently relatively stable at 60-70%. Information obtained from the lecturers indicates that the knowledge of the students entering the training is highly variable in these topics, which would also be indicated by the first time pass rate in these module assessments of generally just above 60%.

Staff teaching Animal Biology expressed their serious concerns that the veterinary community will lose the zoological expertise, which in a country like the Czech Republic where people are extremely interested in fishing, hunting, exotic animals etc. and expect the veterinarian to be an expert for animals in general, could become a serious issue.

It should be noted that the team in Physiology and Pathophysiology is developing their course material with external grant funding that allows them to prepare concise notes combining the essential theoretical knowledge with practical applications, to accompany the teaching. This represents a good initiative to model the subject to the needs of the curriculum and integrate the topic well, using it as a bridge between basic science and clinics.

The practical aspect (laboratory animal handling and procedures) of the Pharmacology and Pharmacy courses is very good, since it makes students aware of laboratory animal work and provides them with basic, relevant experience in the handling of these animals, an essential prerequisite for a specific area of veterinary work.

It is impressive how all subjects are taught in a way that they comprise both a theoretical part (lectures) and a practical part. In the vast majority of modules, the latter comprises either an equal or a higher part of the module than the former. Therefore, the amount of practicals is more than sufficient and the balance between lectures and practicals appears appropriate.

In the current, new curriculum, there is ample evidence that the basic subjects and sciences are taught to provide the direct basis for the clinical subjects. A good example is animal genetics which is also incorporated to some extent in the clinical subjects. This is also reflected by the various elective subjects provided by the basic disciplines, which link the basic disciplines and the clinics in specific areas.

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In some modules such as Pharmacology and Pharmacy the link between the practical training in laboratory animal handling and procedures and the clinical work later on in the curriculum (clinical work with small mammals) is not directly obvious.

It is the opinion of the team, that the requirements regarding Basic Subjects & Sciences as they are laid down in Annex I of the SOP are met.

4.2.1 Suggestions

4.2.1.1 While the practical training in laboratory animal handling and procedures in Pharmacology is a good basis for the future clinical work with small mammals, it would be useful of the lecturers of the Pharmacology and Pharmacy modules and the relevant clinical teachers worked closely together to improve the integration/alignment of their training to make the link between both components more obvious.

4.3 ANIMAL PRODUCTION

4.3.1 Findings

The UVPS Brno has two satellite agricultural farms. They are situated in NovyJicin(144 Km from Brno) and in NoveDvory (16 km from Brno), for a total of 3299 Ha. According to the schedule provided, the period spent in the School Farms differ upon the subject studied: the students spend one day in some animal production subjects, theoretical and practical (animal husbandry, agricultural production) and 3-4 days in swine/bovine clinical subjects (gynaecology, epizootology).

There are preclinical exposure to handling farm animals and horses, mentioned in SER stage 1 starting from the first year, 110 hr in anatomy (clinical anatomy) for the two faculties, and rearing pet animals, 4 hr for the FVM. In the second year the FVM has 55 hr in nonclinical animal work while the FVHE has 38 hr in the same domain, most of them in animal production subjects: Animal Protection and Ethology (6hr), Animal Nutrition (4hr), Animal Husbandry (14hr), and Pathological Morphology for both faculties. An additional 17 hr are present in "Basics of veterinary care" for FVM students only. In the third year, nonclinical animal work is provided for the disciplines of Pharmacology-Pharmacy and Animal Hygiene (24 and 6 hr, respectively) for both faculties two extra hours for FVHE in food production subjects.

There are sufficient hours in Animal Productions subjects. There is a small differentiation between the two faculties regarding the total nr. of hours (390 FVM/351 FVHE), and they have a good balance between lectures (175 FVM/149 FVHE) and seminars, deskwork, nonclinical animal work (215 FVM/202 FVHE). Furthermore, compulsory elective subjects for FVM are available as Veterinary Dietetics: 56 hr (28 theory) and Hunting Game Management: 56 hr (28 hr of theory).

Agronomy is taught under Agricultural Production denomination, 13 hours lecture and 26 hours practical activities at the university farm for both faculties. Animal Nutrition subjects include silage production, pasture management, and use of particular feeds and plants, as well as the use of particular feeds and plants. Principles of nutrition are thought by different species and categories.

Animal Productions is not a course by itself, its topics being included in different subjects like Agricultural Productions and Agronomy. Herd health management is taught in the clinical years.

Forensic and State Veterinary Medicine are taught in ninth and in the tenth semester (FVM and FVHE, respectively)for a comparable n. of hrs of practic, laboratory and desk based work in the two curricula. Animal welfare is taught in both faculties. There are sufficient numbers of theoretical and practical hours in Animal Protection and Animal Hygiene subjects. The welfare of animals in the clinics and

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school farm is taken into consideration by teachers and pointed out to students. Biosafety and biosecurity measures are taught in the first hour of each practical subject and respected. Not all laboratories are equipped with eye showers.

4.3.2. Comments

The farm classes are well organized, (based on a program sent at the beginning of the semester), students and teachers are transported with the bus in farm facilities, where a large number of bovine (dairy cows particularly Holstein), beef cows (Limousine) and pigs are bred and raised. There are very good teaching and learning conditions regarding the number of animals, their housing as well as the safety of their productions (milk, meat). The students participate in different activities (blood sampling, rectal palpation, artificial insemination in cows and pigs, surgical operations in pigs, cesarian section in cows under close supervision). The students have adequate living conditions (dormitories with 4-6 students/room in the administrative building near the farm). The animal welfare principles are generally respected in the farm. The Animal Production curricula of the two faculties are very similar.

The importance of having eye-washes in laboratories is clearly well known at the faculty level, as all new labs have are properly equipped with modern safety equipment including eye-washes. However, eye-washes are still not present in the older laboratories. The Team was told that the Czech law requires for eye damage only the presence of an eye washing solution stored somewhere in the lab. In most European countries eye-washes are a commonly accepted safety standard for laboratory workers, as in case of spillage of dangerous liquids in the eyes of an operator, severe eye lesions can only be avoided if both eyes are thoroughly washed at the same time under an easily reachable eye-wash equipment. The UVPS should seriously consider providing every lab with modern eye-washes.

It is the opinion of the team, that the requirements regarding Animal Production as they are laid down in Annex I of the SOP are met.

4.3.3 Suggestions

4.3.3.1 More clinical oriented topics in teaching animal nutrition (correlations between animal nutrition and some pathological issues: reproduction, metabolic disorders, toxic events) should be made.

4.3.3.2 Eye-washes should be placed in every laboratory.

4.4 CLINICAL SCIENCES

4.4.1 Findings

The majority of the teaching in clinical sciences is provided by the Department of Veterinary Pathology and Parasitology, the Small Animal Clinic, the Avian and Exotic Animal Clinic, the Small Animal Clinical Laboratory, the Equine Clinic, the Ruminant and Swine Clinic, and the Large Animal Clinical Laboratory. Clinical teaching also takes place in the Agricultural Farms of the Faculty and on several private farms through the mobile clinic.

Pathology is included as two modules (Pathological Morphology I and II) into the clinical subjects. The teaching has been slightly increased (5h plus) in the new curriculum. Practical teaching is aligned with the theory, as practical gross (necropsy) and histopathology classes follow the lecture (i.e. in organ systems). The modules are taught in years 2 and 3 taught by members of the recently formed Department of Pathology and Parasitology in the FVM.

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The Pathology unit has recently moved into newly refurbished premises which provide it with new post mortem rooms, a large one for student necropsy classes and large animal necropsies and a small one for diagnostic post mortem examinations on smaller animals. Currently, this unit does not have a Full Professor. The discipline of Pathology is taught by an Associate and an Assistant Professor.

Carcasses for the necropsy teaching come from the clinics or outside practitioners as well as the Brno zoo. The pathologists provide a diagnostic post mortem, biopsy and cytology service, and the material is used for undergraduate teaching. The post mortem service is provided 7 days a week, offering diagnostic work-up of cases within 24 hours. Preservation of animals is in dedicated cold rooms and a large anteroom in front of the post mortem room that can be cooled down to plus 16 degrees. The caseload in pathology is good in all species (see also Chapter 7).

The unit also has a museum with partly historical permanent fixed specimens of a wide range of relevant conditions and infectious diseases. The museum and the specimens have not been in a very good condition, but are currently being restored and maintained. Similarly, parasitology is also listed as a clinical subject. Like pathology, it is taught by members of the recently formed Department of Pathology and Parasitology in the FVM.

The faculty runs a mobile clinic for production animals. One for the large farm animals, which is focussed mainly on ruminant reproduction, but all other services are also offered. The students are closely involved in the work of the mobile clinic and it is compulsory. They have to „book” the places in the regular visits. 3 students can join at one occasion. There are 13-15 farm visits in a month, so during the nine months of education in a year about 350 students can participate. No trips are offered during the summer holidays, but interested students can join teachers going on a field trip.

The number of animals taken care by the mobile clinic is the following: 2280 sows on 6 farms + 500 on faculty farm, and 3650 cows on 8 farms + 1000 on faculty farm. That means 14 912 interventions on cows (year 2012) and 4176 in sows (year 2012) The Equine Clinic also has a mobile clinic service with a mobile X-ray which is operated on call, no regular visits are performed, and the general procedure is that owners bring their horses to the clinic. Students also participate in the work of this mobile clinic. The students are covered by insurance during their farm work.

A 24/7 emergency service is functioning – with active student's involvement - in the Equine and Small Animal Clinics. In the Equine Clinic there is 1 vet on duty, plus a second one and an anaesthesiologist are available on call. In the foaling season a third vet is also available on call. The students participate in this emergency service 24 hours. They have a bedroom at their disposal to get some rest in between emergencies. In the Small Animal Clinic 2 vets from academic staff are on duty from 3:00 to 8:00 pm. After 8:00 pm there is 1 academic vet plus one on call. One vet from reproduction and one radiologist is also available on call. Students are involved; they have a room with beds in the intensive care unit.

The caseload and the possibility for hands on work are excellent in all species. The students have a list of the tasks to be completed by hands on training, and the teacher has to sign the acquisition of each technique by each student. Beside the compulsory clinical work the clinics are open any time for the interested students to do voluntary work. The subject of practicals generally correlates with the lectures of that week.

Compulsory extramural work focuses on laboratory work in a State Veterinary Laboratories, meat inspection, and veterinary legislation.

The clinical staff is very enthusiastic and dedicated to teaching. The practicals are held in small groups with 4-6 students per teacher. All students not only have the opportunity, but must see/complete the most important veterinary interventions in large animal practice. The equine caseload is extremely high with regard to both the internal medicine and surgical cases. All students have to see and cope with a colic surgery during the studies. Small animal surgery skills (like castration, OHE) are taught and constitute a requirement on practicals and during intramural clinical work.

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The curriculum contains 2745 hours (FVM) and 2017 hours (FVHE) teaching of compulsory clinical subjects related to the total hours of teaching of 4663 hours and 4713 hours for FVM and FVHE, respectively. An additional 849 hours of teaching are offered for both FVM and FVHE students as compulsory elective subjects.

4.4.2 Comments

The number of hours and proportion of curricular time allocated to the clinical subjects are adequate and in line with veterinary courses elsewhere in Europe.

The new Pathology Unit has been well refurbished. However, the post mortem room contains some features (like a normal household oven with exhaust, kitchen furniture that cannot sustain repeated moist cleaning) which should not be in a post mortem room. Also, the post mortem rooms are not properly separated from the clean rooms. Therefore, adequate disinfection upon leaving the post mortem room area is not possible due to a lack of cleaning and disinfection facilities and tools. Also, it appears that students might wear their street shoes into the post mortem room area and will still be wearing their aprons and wellingtons upon leaving the post mortem examination area. This represents a potential biosafety issue.

Considering the recent retirement of the only Full Professor in Pathology (also the only Diplomate of the European College of Veterinary Pathologists), it is not clear how the Faculty wants to ensure the sustainability of the discipline not only in teaching, but also in high quality diagnostics and research, and how it wants to ensure that the junior colleagues will be able to develop their career and represent this core discipline adequately. The teaching burden is heavy (164 student hours; 82 hours lectures; 82 hours practicals for students, representing many times substantially more lecturer hours due to small group sizes for both histology and gross pathology/necropsy classes).

A further point is that due to the retirement of the Full Professor, the University now does not have a Diplomate of the ECVP and therefore loses the status as ECVP registered residency training centre which means that junior academics embarking on a career in this field will not be able to obtain a postgraduate qualification. A too heavy teaching burden might also hinder potential new PhD students in their research and affect the quality of their work, likely having a direct impact on their career.

Day-1 skills cover all topics that are necessary for the pursuit of veterinary profession. The ratio of clinical work to other types of work is 1360: 3303 = 0,448 (FVM), and 1057 : 4713 = 0,225 (FVHE) which is a big difference. The latter is not completely satisfactory compared to the recommended ratio of 1:4, although the fact that many students will also take clinical electives will improve their individual ratio. The new curriculum resulted a 5,5% increase in the ratio of clinical subjects in FVM, and an 8.3% increase in FVHE.

It is the opinion of the team, that the requirements regarding Clinical Sciences as they are laid down in Annex I of the SOP are met.

4.4.3 Suggestions

4.4.3.1 A more obvious differentiation between the two faculties would be welcomed.

4.4.3.2 Care should be taken that the Pathology unit remains sustainable and can deliver in all areas (apart from teaching and diagnostic work, also research). As part of this, a new full professor should be sought, and international advertising (through ESVP and ECVP) would be a suitable option. An English speaking international candidate (Diplomate of ECVP or ACVP) would likely not cause significant problems, since the course has an English track.

- 4.4.3.3. It should be ensured that the Faculty regains its ECVP registered residency training centre status, since this will attract and retain good junior staff and render the unit sustainable in high quality teaching, diagnostic work and research. Alongside seeking a new Full Professor, the current staff should be given appropriate time and financial support to prepare for the ECVP examination by a stay in a registered training centre during a period of revision in preparation for the examination.**
- 4.4.3.4 The post mortem rooms should be separated from the remaining building by a room separating the dirty from the clean area and allowing disinfection.**

4.5 FOOD HYGIENE & TECHNOLOGY AND VETERINARY PUBLIC HEALTH

4.5.1 Findings

At a minimum, all students receive 48 hours of practical training in the hygiene of meat production, 26 hours of milk hygiene practicals and 41 hours of practicals on other food issues. These cover a comprehensive range of foods of animal origin. In addition, all students have training in the slaughterhouse environment. At a minimum, this consists of 3 hours at the faculty slaughterhouse, 10 hours at a local commercial slaughterhouse specially equipped for the purpose, and two 2 hour practical periods at a commercial poultry slaughter facility. Students must also spend two weeks of extra-mural study in a slaughterhouse of their choice. Their attendance is verified by the Official Veterinarian in attendance.

The recently refurbished slaughterhouse at the faculty slaughters cattle and pigs and provides an excellent training environment. The low throughput and static line permits the processing to be carried out at a speed which maximises the teaching opportunities. The arrangement through which livestock are provided by a commercial slaughterhouse to the faculty facility and the chilled meat returned for further processing is extremely beneficial to the faculty as it permits a reasonable throughput of material.

A purpose built facility at the commercial slaughterhouse consists of a static line on which pig carcasses and bovine and porcine offals can be displayed. This allows students the opportunity to practice inspection techniques free from pressure to do so quickly. No animals are slaughtered without stunning in any of the facilities used for teaching purposes.

All students have access to a commercial product processing establishment where practical training in meat technology and process control is carried out. The FVHE faculty offers a comprehensive training in all aspects of food hygiene and technology. The training offered in animal welfare and in the practical application of veterinary public health, animal health and animal welfare legislation is exemplary. The innovative use of practical case histories to work through the legal framework brings the subject to life. Co-operation with the State Veterinary Service is close and mutually beneficial.

No evidence could be found of any significant integration of food hygiene training into the pathology, microbiology, parasitology, pharmacology, toxicology, food animal husbandry or clinical production courses. Co-operation and integrated teaching of food hygiene within the faculties is hindered further by the number of Departments teaching food hygiene related subjects. As each Department has its own food laboratory, carrying out separate functions but utilising similar equipment, no one Department has sufficient throughput or concentration of expertise to make accreditation by the national quality assurance body feasible.

From the figures provided in the SER, for food hygiene, the FVM course provides 288 hours of training out of a total curriculum hours of 4,663, equivalent to 6.2 % and the FVHE course 1,104 hours out of 4,713, equivalent to 23.5%. If the subjects of 'Veterinary legislation and forensic medicine, veterinary state medicine, public health' are added to these totals, the FVM course provides 466 hours out of

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the total curriculum hours of 4,663, equivalent to 10.0% and the FVHE course, 1286 hours out of 4,713, equivalent to 28.1%.

4.5.2 Comments

The training provided to the students of the Faculty of Veterinary Medicine in the subjects of Food Hygiene and Technology and Veterinary Public Health is sufficient to provide them with a good grounding in these subject areas.

The training provided to the students of the Faculty of Veterinary Hygiene and Ecology in the subjects of Food Hygiene and Technology and Veterinary Public Health is comprehensive in both the breadth and depth of training provided.

The fact that the UVPS food laboratories cannot be accredited nationally limits their ability to participate in official control programmes, to analyse official samples and to participate in some research programmes.

The training offered in animal welfare and in the practical application of veterinary public health, animal health and animal welfare legislation is innovative and exemplary.

Co-operation with other faculties, such as the Summer School organised in conjunction with the Veterinary school in Vienna, or in research with the University of Bolognais to be encouraged.

It is the opinion of the team, that the requirements regarding Food Hygiene and Technology & Veterinary Public Health as they are laid down in Annex I of the SOP are met.

4.5.3 Suggestions

4.5.3.1 Efforts must be made to integrate food hygiene and safety into training in the pathology, microbiology, parasitology, pharmacology, toxicology, food animal husbandry or clinical production courses. Students must understand the relationship between safe food and healthy animals.

4.5.3.2 An internal review should be carried out with the objective of merging Departments and thus facilitate the sharing of facilities, equipment and ideas.

4.5.3.3 Consideration should be given to merging the food laboratories into one laboratory for food science and safety. This institute would then be of a sufficient size to make accreditation financially achievable with all the benefits that this enhanced status would bring.

4.5.3.4 Consideration should be given into the re-branding of the Faculty of Hygiene and Ecology to better illustrate the role its graduates could play in the worldwide issues of 'Food Security' and the concept of 'One Health' - that is the relationship between public health, animal health and the environment.

4.5.3.5 Participation in co-operation with other faculties and institutions beyond the Czech Republic is desirable. Further opportunities should be explored to permit exchange of under and post graduate students and teaching staff thus enhancing the reputation of the school.

4.6 ELECTIVES, OPTIONAL DISCIPLINES & OTHER SUBJECTS

4.6.1 Findings

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Tracking follows the student from the start till the day of graduation. It is currently not possible to switch between tracks. Initially, 1st-year FVHE students could successfully apply for entering the FVM the year after, and they could even get some credit from the courses successfully taken to start at the second year on the FVM. This possibility is about to be prohibited. The curriculum is described in SER1 p.41- p.53. On both tracks students have to select at least four compulsory elective subjects. There is no maximum numbers of subjects one can choose. The compulsory electives are listed in table 4.3a-4.3b. The courses are only started if more than 4 students register. The University enables student to take optional electives. These are listed in table 4.4b. Especially riding is popular with the new riding hall.

4.6.2 Comments

It is perhaps preferable that the words omni-competence are considered rather as omni-potential, as even with tracking new graduates still need experience and time to develop their newly discovered knowledge and techniques. Within the context of this it should be understood that all students reach a level of skills and understanding across all disciplines that allows them to carry out basic techniques safely and without risk to their patients, clients and colleagues.

It is the opinion of the team, that the requirements regarding Elective, Optional Disciplines and Other Subjects as they are laid down in Annex I of the SOP are met.

4.6.3 Suggestions

None

5. TEACHING

5.1 Teaching methodology

5.1.1 Findings

At the UVPS, teaching management is provided for by the Dean, Vice-Dean for Education, by Department Chairmen within a department, by the Section Head within each section, and by the Director of studies of each subject (acting as a guarantor). Subject syllabi are announced in advance. Specific learning objectives are not mentioned, but the syllabi that are provided to students list other relevant information, including the form of and expectations for the exam.

Teaching is undertaken in a combination of various teaching methods, incl. practical approaches. There is limited use of e-learning (some interactive teaching programmes), although students are encouraged to use relevant websites and are being made aware of these in lectures and practicals. A 'comprehensive approach' is taken, including problem-oriented teaching (although the latter is limited and only in some modules; often it is not directly recognised as such even by the lecturers themselves). There is no direct mention of a link between research and teaching, although in some disciplines (for example Zoology) lecturers teach in the areas they are focusing on in their research. Moodle is available for communication with the students, but seems to be used only in a limited manner at present, and mainly for administrative purposes. Communication seems mainly via email, and the lecturers in the majority distribute their lecture material via email.

Teaching resources comprise textbooks, electronic lecture notes, international publications, available in the libraries (Faculty, Departments, Student residences) and the on campus book shop. Lecturers appear to provide ample teaching material to their students, in the form of electronic files of their lectures with associated material, and in the form of books that the students can buy at cost price. These are also available as hard copies in the libraries.

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The students learn from the material provided by the teachers, supplemented by recommended books and other, often public (websites) material. It appears that the material provided by the lecturers is most relevant for the exam preparation

a) *Theoretical training* (4.1.1.2.1, p 43 of SER-1):

Lectures: This teaches large student cohorts. For some topics (for example Physiology, Immunology), lectures are provided for the complete student cohort (once in Czech, once in English), while others (such as Biology) use smaller lecture theatres that take only a proportion of students, which renders it necessary that the lectures are repeated. The reason for this might be that a) there are not enough large lecture theatres on campus to take all scheduled lectures, and/or b) the lecturers prefer to teach smaller student cohorts in order to be able to communicate more directly with the students.

Seminars: These teach smaller number (NB: not specified) of students, with audio-visual presentation, intended as discussion between teacher and students. In general, the groups appear to be no larger than 12-13 students. The time tables indicate that seminars are relatively limited.

Self-directed learning: This is undertaken with defined teaching material; partly with material provided by the University (histology slides, anatomic specimens etc.) for study if students need it (not with allocated time). The learning material is generally available to the students at any time. This was particularly evident in anatomy (fixed and processed specimens) and pathology (histological specimens).

b) *Practical training* (5.1.1.5): This is generally part of the clinical training in School Agricultural farm, private breeding farms (collaboration), mobile clinic (farm visits), poultry slaughtering facilities (collaboration), State Veterinary Administration (agreement), State Veterinary Diagnostic laboratories (agreement), Abattoir (specific agreement), visits to companies and facilities (longstanding agreements), private veterinary surgeons, teaching material from abattoirs etc.

Supervised practical training (4.1.1.2.2): This is part of almost all modules, with small groups and extensive hands-on work, often with live animals also in the basic disciplines, and is accomplished in laboratories and classroom (histology, pathohistology, case studies, computer aided learning), by non-clinical animal work (healthy animals and organs, carcasses, necropsies) or clinical animal work (on live and (partly) dead (surgery) animals - similar to clinical skills labs)

c) *Other training* (G): This mainly comprises trips with teachers as part of extramural training (not involving animals), such as food processing or pharmaceutical companies.

The teaching of day-1 skills and their recording in the student log-book is obligatory. Learning objectives appear to be provided for each module directly by the lectures at the beginning of the module, including also information on the type of and requirements for the assessment.

Students are encouraged to fill in evaluation forms after each module, but seem to do this only to a very limited extent (10-20% of students). The students do not receive any feedback on their evaluations and are not involved in any discussions on these. However, the teaching evaluation appears to be reflected in a potential salary top-up of staff, although this seems relatively ad hoc and potentially subjective.

5.1.2 Comments

A wide variety of teaching methods are used, but only in selected modules (such as Veterinary Public Health legislation) is case-based/evidence based teaching directly obvious.

It is not clear whether the teaching is research based, although seeing the research activity in most Departments, it suggests that recent knowledge from research in the Faculties in Brno and outside is feeding into the training. Theoretical and practical teaching appears well balanced in most subjects.

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There is apparently an insufficient integration of students from the Czech Republic with the international students in any particular extent. Recently a scheme was established by which each international student must liaise with a Czech study program student, so that local students can help international ones. International students do not have access to the special made textbooks/compendia made by the university that form the syllabi for most of the subjects, so they have to gain their knowledge from English textbooks.

The percentage of students filling out quality assessment questionnaires is not satisfactory. Students often do not realize the importance of providing their institutions with quality assessment, so they should be forced to consider this aspect. Each teacher could be requested to discuss with the students at the beginning of each course the importance of quality assessment. Also, the following item could be added at the beginning of the questionnaire: *I am/am not satisfied by the teaching of this course but I do not want to fill out the questionnaire.* Other ways can be found, but it is important to convince rather than oblige students, as when they are obliged (i.e. they have to do it otherwise cannot register for the exam) their judgement will not be free and objective

It is the opinion of the team, that the requirements regarding Teaching Methodology as they are laid down in Annex I of the SOP are met.

5.1.3 Suggestions

- 5.1.3.1 **The Faculties might want to consider looking into the international approach to teaching, to be able to see where they stand in comparison to other European countries. While there is often no direct evidence of problem oriented learning, it became obvious from discussions with individual lecturers, that such approaches are taken at least in some modules. Slight adjustments in the teaching approach would probably align the teaching to a more problem based approach.**
- 5.1.3.2 **The UVPS must be commended for establishing a scheme by which Czech students are supposed to help international students. The success of this scheme must be monitored to make sure that the learning experience of international students is as good as the one of the Czech study program students**
- 5.1.3.2 **The percentage of students filling out teaching evaluation forms at the end of courses should be substantially increased.**

5.2 EXAMINATIONS

5.2.1 Findings

There are three possibilities for examination: a) during the course progress /practical training; b) at the end of the term (the last week of the term); c) when the subject is completed by an examination in the form determined by the director (written test, theoretical, practical or mixt). There are two 5-week periods (exam sessions), after the end of courses end, in winter and summer, without external examiners. As stipulated in the Study Examination Code art 11 al. 2: "Examinations are open to members of the academic community".

Course credits are awarded to each student by the teacher who conducts practical training or a teacher designated by the director of studies. The student is examined by the director of studies or other specialists authorized to examine by the Dean.

The examiner announces the examination dates one month before (limit number of students). The student registers for the date. They have 15 min. of preparation time and 30 min the oral examination.

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Possible results are: Pass: Excellent (A, 1); Very good (B, 1,5); Good (C, 2); Satisfactory (D, 2,5); Sufficient (E, 3). Fail: FX and F, both 4 (not recorded in the book). The student can retake an exam three times, during the exam session or outside of it in agreement with the professor.

For the final state examination, the so called "ExamenRigorousum", only professors, associate professors and specialists nominated by the Science Council are authorized to examine. The final exam consists of individual examinations (oral and practical training part). The result is graded in a way similar to the normal exam. The overall result of the state examination is an arithmetical average of the individual examinations (grade from A to E).

According to the new curriculum the students must pass the preclinical subjects before they are allowed to continue on to the following discipline. The old curriculum allowed students to attend clinical subjects before passing the preclinical/basic subjects.

5.2.2 Comments

The examination system seems to be effective. Not all professors are satisfied (see comments about Biophysics). There were some dysfunctions regarding the e-learning platform, which seems to not work properly at times. The professors provide the content of the lectures near the end of the term, and the students create a system (mail, dropbox) to spread the information. The new curriculum is effective at this time (was implemented last year) although not all staff and students seem to be adapting quickly to it.

Some exams are really demanding for the students, which can explain the dropout rate, mostly for FVHE. There is a high level of stress in the examination period specially if the student fail the first examine and have to choose a new time-frame for the next attempt in the same exam session. The snowball effect hits the students who fail one or two examine. Often students have little if any official explanations for their dropping out.

External examiners mostly in final exam "examenrigorousum" could perhaps give better directions and improve the quality.

It is the opinion of the team, that the requirements regarding Examinations as they are laid down in Annex I of the SOP are met.

5.2.3 Suggestions

5.2.3.1 An effective and well functioning e-learning platform should be developed, as this will make it easier for students to prepare their exams.

5.2.3.2 The new curriculum should be better explained to both students and staff

5.2.3.3 The use of external examiners should be considered, particularly for the "examenrigorousum".

5.2.3.4 Efforts should be made to lower the level of stress during the exam sessions. The University should consider establishing a student counselling service

6 PHYSICAL FACILITIES & EQUIPMENT

6.1 GENERAL ASPECTS

6.1.1 Findings

The UVPS Brno is concentrated on a self-contained campus (about 13 hectares) in the city of Brno. The University further includes the School Agricultural Farm. The University and its faculties have enough vehicles to transfer students to the farms or other external sites, and to run the mobile clinic.

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The situation and the organisation of the campus are very convenient for the training and for the student life. All facilities necessary for the training of student can be found on campus. A considerable effort has been made over the last years, with the help of the Ministry of Education to refurbish and adapt the existing buildings and create new facilities (especially for the clinics). Some old buildings still need some work, but the ongoing planning (on University and Faculties level) is based on a good vision of the whole organisation of the Faculties involved in the veterinary training.

Most lecture rooms are well designed and equipped with actual teaching instruments and technology. The health and safety issues (biohazard warnings, fire extinguishers, eye washes, sluices, chemicals, medicines and dangerous drugs storage) are respected in most new laboratories. This is not the case in some old buildings or in old laboratories.

6.1.2 Comments

The experts were impressed by the new facilities and the appropriate organisation. The University should be congratulated on its successful negotiation to obtain funding for new facilities.

In several subjects (ex. Physiology, Pharmacology / Pharmacy and Pathology), lectures are generally held in the large lecture halls, i.e. to the entire cohort of Czech students, with an additional lecture in English to those in the English track. However, other Departments use smaller lecture halls (often in their own building) and teach to smaller cohorts of students, requiring repetition by the lecturers. The question arises as to whether this is efficient use of the lecturers' time, considering that they are (or should be) undertaking research at competitive, international level.

It appeared during discussions with students and teachers, as well as when considering some of the pictures in the SER-1 (lack of safety boots or gloves at pages 11, 17, 30, 60, 63, 107, 110 and 137) that the sensibility and consciousness for safety matters is heterogeneous in the Faculties and among the students. This point needs to be addressed on a less decentralized level.

It is the opinion of the team, that the requirements regarding General Aspects of Physical Facilities & Equipment as they are laid down in Annex I of the SOP are met.

6.1.3 Suggestions

6.1.3.1 It is important that the UVPS Brno continues to plan the development of the campus to find ways to adapt the facilities to the future needs of the students and the teachers, taking into consideration the evolution of the Faculties as well as the veterinary profession.

6.1.3.2 Generally speaking, more attention should be given to health and safety matters concerning the students, especially in the laboratories, but also in other parts of the faculties. It could be useful to elaborate a concept on University level, with more detailed directives to be implemented in the clinics and departments.

6.1.3.3 The Faculty should assess whether a better use of the large lecture halls can be made also by teachers from other Departments, as this would avoid the latter having to repeat the same lecture over and over to small groups of students. When a University decides to have a large class of students, then such a large class should not be a burden for teachers but rather a responsibility of the University to find a higher number of large lecture halls so as to optimize teacher's time.

6.2 CLINICAL FACILITIES & ORGANISATION

6.2.1 Findings

The Small Animal Clinic (SAC) is located in a separate building built in 2006 and has a floor space of more than a thousand square meters. The clinic is divided into the sections of Surgery, Medicine, Reproduction, Avian and Exotic Clinic and Small Animal Clinical Laboratory. The Surgery section runs the diagnostic imaging service as well. The SAC is open 8:00 – 15:00 for first opinion and referral cases. An emergency service is provided afterwards. The laboratory samples are sent to a human lab during the emergency hours. The SAC is extremely well equipped. There are 5 operating theatres with last generation anaesthetic and monitoring machines. There is a digital X-ray system and a CT as well. The MRI and an MRI guided C-arm is for common research purposes in human medicine projects, but can also be used for teaching. Arthroscopy and endoscopic abdominal surgery is everyday routine with good quality equipment. The experimental surgical unit is equipped at a very high level, and serves as a basis for cooperation with projects of human medicine. The intensive care unit has all the necessary equipment such as infusion pumps, equipment for oxygen therapy etc. A rehabilitation-physiotherapy unit which is provided with a swimming pool is connected to surgery. The clinic has three color Doppler ultrasound units and during the week in which students have to do ultrasound practicals, some other ultrasound units are borrowed, so the students have a total of ten machines to practice abdominal and heart ultrasound examinations. An isolation facility is available through a separate entrance from outside. The clinical laboratory is also well equipped. The caseload is 23.5 animal/daily (dogs and cats only). The small animal clinical laboratory has processed 14038 samples in 2012.

The Avian and Exotic Animal Clinic had 3989 patients in 2012, a daily caseload of 10.9. Small mammals, birds and reptiles are treated. Anaesthetic machines, a separate surgical theatre, and an endoscopy unit constitute the most important equipment. A separate necropsy room is also within the clinic. The clinic has two Diplomats the European College of Zoological Medicine.

The Large Animal Clinic consists of an Equine Clinic and a Ruminant and Swine Clinic. The Equine Clinic is located in a common building with the Ruminant Clinic and has a capacity of 50 boxes, four of which are intensive care boxes. They have 3 operating theatres equipped with anaesthetic machines. Recovery rooms are located next to each operating theatre. A separate unit for diagnostic imaging is located within this clinic, which is equipped with digital x-ray, endoscopy and ultrasound. A high speed treadmill serves for real time laryngoscopic or cardiologic examinations. A clinical laboratory for large animals is run within the clinic providing mostly emergency diagnostics. For further tests the samples are sent to the small animal clinical lab, or to a human lab during the emergency hours. There is one Diplomat of the European College of Equine Internal Medicine working in the clinic. 1110 horses were treated in 2012, that is a 3,0 caseload per day. The clinic is open on 7/24 basis.

The facilities of the Ruminant Clinic are in common with the equine clinic, hosted in the same building. Cows, calves and goats were hospitalized at the time of visitation. To provide the students with clinical cases, the faculty buys sick animals from farms or slaughterhouses, and keeps them for the time of treatment, and then sells them for slaughtering. One healthy cow serves for propaedeutic practicals. Some goats are also used for training students in clinical examination. The number of treated animals in 2012 was 41 cattle and 69 goats and sheep. The impressive data about the numbers of animals seen by mobile clinic visits, is outlined in section 4.1

The Swine Clinic is located in a separate building, where only swine are kept. Admission is possible after shower and cloth changing only, for the students as well. The clinic is equipped with closed ventilation system and thermoregulation. The maximum capacity of the pavilion is about 150 pigs, the average daily number of animals in the clinic is about 80. The faculty buys sick piglets, sows and pigs from farms and slaughterhouses to provide students with clinical cases. Necropsies are done on site in a necropsy room. Colleagues from pathology are invited to make the dissections in some cases, and samples are also processed in the department of pathology. Students are closely involved in the

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clinical work. The clinic is open from 7:00am to 3:00pm on weekdays, and between 8:00 and 12:00 Noon on weekends. A vet is on call after the opening hours. 335 pigs were treated in 2012.

6.2.2 Comments

The team was impressed by the busy clinical activity on all clinics, and the very close involvement of students in the clinical work in the practicals and by intramural clinical rotations as well.

It is the opinion of the team, that the requirements regarding Clinical Facilities & Organisation as they are laid down in Annex I of the SOP are met.

6.2.3 Suggestions

6.2.3.1 Because of the very high level of professional work in the equine clinic, the purchasing of a CT equipment would add a lot to the level of diagnostics at the clinic.

6.2.3.2 As anaesthesiology is done separately on all clinics by the clinical staff, in the future the establishment of a central department for anaesthesiology should be seriously taken into consideration, as it would allow for better training of anesthesiologists across species and would also improve the degree of collaboration between clinics.

7 ANIMALS & TEACHING MATERIAL OF ANIMAL ORIGIN

7.1 Findings

Practical anatomy training is performed with viscera collected at the slaughterhouse and pet cadavers provided by the clinics. Parts of large animals (organs, extremities) are also available for dissection. Skeletons and bones of the main domestic species, horses and cattle limbs and a number of anatomical models are available. For necropsy and pathological anatomy teaching, carcasses of large and small animals are collected from the Faculty clinics. Fresh chilled cadavers and organs and body parts preserved in formalin are also available. The parts undergo multiple flushing after being taken out of the fixans, prior to each practical.

Practical training in animal production regarding morphological evaluation is carried out by the students on in-patient animals at the Faculty and on livestock housed on the University farm. The percentage of referral cases in the UVPS Clinics is about 70% for small animals and 80-90% for equine.

In the clinics, students are not allowed to compile an animal's record, a task which can be accomplished only by faculty staff. The students complained during the open hour session that most owners do not accept them as a responsible person to take care of their animals. This may be due to a failure of clients to recognize the teaching aspect of the UVPS clinics. Therefore, students are never left alone with the clients, not even to collect history and do a physical exam. However, students perform the clinical exam as well as all the other clinical procedures when the animal is taken away after the primary examination for a special diagnostic procedure or treatment. After this initial step, students follow the patient during its entire stay in the clinic.

The situation of the English-speaking group is a bit worse, because they are at a disadvantage with respect to the Czech students as they do not understand Czech, so the communication with the owners is almost impossible for them, and the Czech students take the majority of the cases.

7.2 Comments

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The amount and diversity of material available for necropsy is good. Systematic post mortem diagnostic investigation of a larger proportion of animals that are hospitalised and die at the clinics would provide more teaching material with good links to the clinical aspects. There is sufficient caseload for teaching companion animal clinical work, although the number of cats is somewhat lower than expected (1423 cats in 2012, which is a 3.9 per day caseload). There is a good caseload in the equine clinic and an extremely good caseload in the Ruminant and Swine clinic due to the Faculty farm and contracts of the Faculty with other private farms.

Leaving students alone with clients in the initial phase of the visit is very important for the student to acquire clinical as well as (more importantly) communication skills. In most European Veterinary Schools final year veterinary students are the first contact for the clients as they take client and animal into the exam room, collect the history, fill in the online medical record system with history and physical exam data, and then briefly meet with the clinician (without the client) to discuss the case. Subsequently, each case is assigned to a student who then has the responsibility to follow the case up until the end.

It is the opinion of the team, that the requirements regarding Animals & Teaching Material of Animal Origin as they are laid down in Annex I of the SOP are met.

7.3 Suggestions

- 7.3.1 The name of the UVPS Clinics should be changed from *Clinic* to *Teaching Hospital*.**
- 7.3.2 Faculty clinicians have the responsibility to instruct clients about the need of a Teaching Hospital to train its students appropriately, and should convince their clients to have students perform in front of them simple procedures (blood sampling, vaginal smears, needle aspirates etc.) on their animals under the clinician's supervision.**
- 7.3.3 Both Faculties should pay attention to the difficulties of communication that the students of the English curriculum may face during the clinical work with clients of the hospital, in order to minimise the risks of competition with the Czech students.**
- 7.3.4 Faculty clinicians have the responsibility to make sure that international students have the same opportunities to develop their clinical skills.**

8 LIBRARY & EDUCATIONAL RESOURCES

8.1 Findings

The SER1 lists efficiently library resources. The library of UVPS Brno was newly built in March 2012. Most literature at the library consists of veterinary medicine and hygiene. The main library has specialized literature and computer access to 50,892 books, lecture notes and other specialized literature. The library holds a number of textbooks for loan for the subjects in the curriculum. The library stock of departments and clinics numbers 50,130 library units in total (books, textbooks, lecture notes and specialized literature), which are accessible to students and clinical staff but not for loan. There are 89 hard copy journal subscriptions and 131 electronic journal subscriptions available at the library. Old textbooks published by the faculty are available in electronic versions. Access to electronic journals within databases is estimated to 9000.

The main library is equipped with 124 places to study, 46 computer stations in a room for self-study and 32 computers in reading room and in individual booths. There are 4 rooms with four seats and 2 rooms with 10 seats for working in groups. The visitors can access Internet via computers or by using the WIFI. In 2012 there were 2489 registered users of the library, 43,555 passes recorded and the bibliographic and information service received 1,121 requests.

The library is open from 7:30 am to 19:30 pm Monday to Thursday and Friday from 7:30 am to 3:00 pm. During holidays opening hours are from 08:00 am 12:00 pm. On weekends the library is closed. In the departments/clinics the library is open as long as the staff are at work.

The library gives students access to a range of electronic databases listed in the SER1. They offer introductory courses 4 times a year how to use the most common databases. The UVPS library has exchange agreements with other university libraries.

8.2 Comments

There is at the moment no information as to whether or not students need more textbooks or are satisfied with the library supply of materials and services. The Team was informed that a survey would be performed during the coming year.

It is the opinion of the team, that the requirements regarding Library & Educational Resources as they are laid down in Annex I of the SOP are met.

8.3 Suggestions

8.3.1 In order to help independent studying and improve student responsibility for learning it would be very positive to extend the opening hours of the library both during the day as well as during weekends.

9. ADMISSION & ENROLMENT

9.1 Findings

At UVPS, both FVM and FVHE have a clearly defined admission procedure (see below). The UVPS has a high proportion of foreign students (23.1%) and offers an English veterinary curriculum (self-paying foreign students), which in 2012 was followed by 11.5% of students. Both the Czech and the English curriculum last 6 years, with a small proportion of students (figures are not provided) needing one or more additional years to complete their studies. The drop-out rate is fairly substantial: a success rate of 63.6% was given for the year 2007. However, there are some biases, for instance

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students prolonging their study by one semester or spending time abroad as part of an Erasmus exchange will apparently be counted as a dropout.

Applications go directly to either FVM or FVHE in February/March each year. The admission procedure considers a) High School grades (final 4 years, plus the High School's final examination) ; b) written biology and chemistry test (5 components); c) evidence of interest in and other qualifications for the course (for example English or other language certificates, publications in biology or chemistry)

The admission is overseen by a Chairperson, with a board for scoring (which uses a given scoring system) and a board for the summary of outcome. Applicant numbers are almost 4 times the number of accepted students. It is not specified how many apply to each of the two veterinary programmes (FVM, FVHE) and whether the ratio differs depending on the programme. The annual intake number for the programme in Czech (open to both Czech and Slovak students) is set by the Ministry of Education, Youth and Physical Education (MEYPE) ("NumerusClausus"); it is noted that the MEYPE is currently planning to reduce the number of funded students at universities in order to reduce its expenses. Czech Universities can in theory accept more students than those funded by the State; however, for additional students, the Ministry does not provide funding.

Students from abroad follow the English curriculum and are self paying. Their number increased in 2012, to replace the previously MEYPE funded places for Czech students. An intake examination is organised for these applicants as well, either in the country of origin or at UVPS Brno itself. Information on the success rate is not provided. These foreign students come from a variety of countries, mainly the Nordic countries and Israel, but also Greece and Cyprus. They can be admitted without limitation in number, and the income generated through their attendance (currently annual fees of €7,000) is used to compensate for the reducing number of state funded students.

Admission numbers are apparently influenced by a) University facilities ; b) State funding; c) need for veterinarians in either track. In 2012, a total of 1,544 students were registered in both veterinary tracks, with varying numbers in each year (193-309). Of the 199 students who started the course in 2007, 86% (171) were in year 6 in 2012 (Table 9.3b). At the same time, a further 467 students were registered in the non-vet bachelor or Masters programmes of the FVHE.

For completion of study years 1-5, 60 credits/year have to be gained, but in a cumulative manner, with minimum credits per year (see 9.1.3.2). A lack of credits at the end of year 5 leads to a 1-year extension. For progression to year 6, all 300 credits from years 1-5 are required, including a minimum of 4 compulsory-elective subjects, practical training at University clinics, compulsory extramural training in a veterinary diagnostic laboratory, and practical training at an abattoir. The final year consists of training modules with a total of 60 more credits (based on compulsory-elective subjects), and a final state examination with a diploma.

The average number of graduates since 1980 has been 155. Since 2008 this number has gone up from 175 to 209 (incl. 11 in the English programme) in FVM and FVHE. Average drop out rates for the past few years have been 22.8% for FVM, and 62% for FVHE.

The Faculties invite international speakers and teachers on a regular basis, from Europe and the USA. Student mobility is high. For example, in 2013, a total of 226 FVHE undergraduates spent time abroad, and 103 foreign students spent time at Brno. Several Erasmus programmes and international collaborations are well established in both faculties, such as with Purdue University (USA), the Universities of Leipzig and Berlin (Germany), and the Moscow State Academy of Veterinary Medicine and Biotechnology (Russia).

9.2 Comments

Selection criteria for admission are not entirely clear, i.e. what implies a 'specialised publication in biology or chemistry' (9.1.2.2)? In the entrance exam, knowledge of biology and chemistry is

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considered an important prerequisite for entry (and those disciplines are considered as "principal"), but it is not clear how much this knowledge actually weighs towards the final score.

There is no clear evidence that the national need of veterinarians is taken into account for the calculation of the annual student intake, since the number of funded students appears to be related to the overall number of Government-funded students. Also, there is no comment on the maximum number of students both Faculties feel they can admit to the course.

The very high drop out rates raise concern, leading to the questions a) whether the admission process allows students into the course that do not have the aptitude, knowledge base and motivation for veterinary studies, or b) whether the course is too demanding even for the gifted students. At present it is not clear at what stage the drop out occurs, and whether most are due to the students failing the exams 6 times (maximum number of attempts allowed in a given module).

It has apparently been possible in the past to change from the FVHE track to the FVM track, which would explain the extremely high dropout rate for FVHE. The question arises as to how the rates will change now that this is apparently not possible anymore.

It is the opinion of the team, that the requirements regarding Admission & Enrolment as they are laid down in Annex I of the SOP are met.

9.3 Suggestions

9.3.1 It would be advantageous for the Faculty to examine the causes for the drop out of students more closely. A statistical analysis might highlight the time and reasons for students to drop out, which would then allow to take precautions.

10 ACADEMIC TEACHING & SUPPORT STAFF

10.1 Findings

The ratio of teaching staff versus students is **8,13**. The ratio of teaching staff versus support staff is **1,43**. The number of university staff appointments is decided by:

- The amount of founding available to the university
- Long term developments at the individual departments and clinics within sections of the individual faculties
- Joint activities undertaken by the rectorate

There are no difficulties in filling academic teaching positions, but it is not always possible to fill these posts with the best people because of lower income making private practice more attractive. Staff can move within departments as long as they fulfil specific requirements. Staff can be flexibly deployed for clinical or other services if necessary, as long as they are available and prepared for new responsibilities.

New academic staff is recruited from among students enrolled in doctoral programmes. They can improve their qualifications enrolling in a PhD programme, then following the habilitation procedure and the professorial appointment procedure. PhD students can become assistant, and after their PhD degree recognition they become assistant professors.

In order to become assistant professor, a candidate has to fulfil criteria which are the subject of internal regulation of the university based on:

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- Educational merit (continuing education, teaching practice, textbooks, supervisor in PhD programmes)
- Scientific merit (publications, research projects)
- Applicant's attitude, temperament, team-working capacities etc (science editorial board)
- Habilitation thesis (reviewed by external specialists assessed by faculty habilitation committee)

Professorial positions are granted by the Faculty Science Council and Rector (associate) or Faculty Science Council, University Science Council and the President of the Czech Republic (who formally confers the title), following assessment of a certain number of pre-determined criteria, as well as the evaluation of a lecture (full professor).

81.6 % of staff are veterinarians, which is well within the limits fixed by our SOP. The staff ratios R1-R5 for both faculties are within the limits provided by the SOP as can be seen below:

SOP ratios		UVPS Brno ratios (for FVM and FVHE combined)
R 1UL	8.83	8,13
R2 UL	9,619	9,15
R3 UL	11,389	9,97
R4 UL	2, 203	1,15
R5 Ra	0,474-1,944	1,43

There is a close cooperation between the two faculties and departments within faculties but some departments prefer to do some specialized investigations on their own (there are pathological morphology facilities at other departments, i.e. Diseases of Game, Fish and Bees from FVHE).

Teachers also improve their qualifications by enrolling in courses authorizing them to carry out specialized work required for training and research activities (experiments on animals, authorization to handle radioisotopes etc) according to their field and interest. They can also attend English courses or courses to improve their presentation and communication skills.

The University can decide staffing levels according to the level of income, either from the state budget or from research and other economic activities (clinics), cooperation with other institutions (human medicine projects), industry, other services. The Head of the department and the Dean can decide the benefits of each individual according to their contribution.

Search criteria are established by the ministry, the positions of the senior level teaching staff must be published in national newspapers and internet. International advertising is not requested.

10.2 Comments

Staff seems to be really dedicated to teaching and research activities, and they are loyal to the University despite the low income (although it can be improved from clinical, research or other activities). The higher positions are advertised via internet, and in theory can be seen by anyone.

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A closer cooperation between faculties/departments with regards to the pathological morphology would certainly improve the quality and safety of these investigations. Attaining better professional/research skills can be made through the EBVS programs, which is not sufficiently supported and advertised as became evident during the junior academic staff meeting. The 9 UVPS European College Diplomates have no benefits/advantages achieving these grades.

It is the opinion of the team, that the requirements regarding Academic Teaching&Support Staff as they are laid down in Annex I of the SOP are met.

10.3 Suggestions

10.3.1 Better salaries will improve the selection of the staff and will allow to retain the best teachers

10.3.2 A better visibility of the senior positions available will increase the possibility for foreigners to apply.

10.3.3 The UVPS should consider granting an official recognition to the European Veterinary College Diploma, as well as offering some benefits to European Diplomates in order to both attract Diplomates from outside and motivate new and existing staff to become European Veterinary Specialists through the EBVS College route. This will eventually improve the quality of teaching staff as well as their research skills.

11 CONTINUING EDUCATION

11.1 Findings

There is no compulsory continuing education for veterinarians in Czech Republic. The faculty offers CE courses mainly in state administration, state supervision of animal protection, handling of stray dogs, administrative management, marketing, etc. Only a few courses are held in clinical subjects, such as insemination techniques in different species. The faculty members are invited speakers on several clinical and non-clinical courses organized by the different associations, or the Veterinary Chamber. Some departments, like the Small Animal Clinic and the Avian and Exotic Clinic run a Summer School. These are one week intensive, mostly practical courses for international applicants. The speakers are generally the faculty members, although sometimes well-known foreign speakers are invited. There was also a summer school in food hygiene last year. In 2012 a total of 54 courses with 1906 participants were organized by the 2 faculties.

11.2 Comments

This is also a field where a veterinary faculty should play a leading role as a provider. Continuing professional education also provides a good bridge to and point of contact with local practitioners. However, at present, CE is offered by the Faculty staff in a rather ad hoc manner with a limited range of specific topics. Working in consultation with practitioner associations and the Veterinary Chamber the Faculty should aim to establish a clear and well-structured concept for CE, for instance consisting of consecutive blocks covering all major disciplines of the veterinary science.

It is the opinion of the team, that the requirements regarding Continuing Education as they are laid down in Annex I of the SOP are met.

11.3 Suggestions

11.3.1 In collaboration with local veterinary associations, the UVPS should seek to develop its continuing professional education activities. Both faculties should „push” these organizations to establish a compulsory continuing education system for veterinarians working in any field of the veterinary profession. This might also be a good financing opportunity, for instance related to the development of internship rotation in the clinics.

12 POSTGRADUATE EDUCATION

12.1 Findings

At the FVM and FVHE there are currently 125 full time and 60 part-time PhD students. PhD students are required to provide assistance with teaching in addition to their own studies and research. PhD students receive a scholarship of approximately 220-260 euros/month from the Ministry of Education, Youth and Physical Education (MEYPE). This is supplemented by the University with the provision of a further grant if the student is involved in a science grant project. The student supplement their income through payment for teaching in the Veterinary Medicine course delivered in English and from additional grants from research projects with other institutes or industry.

Each PhD student is expected to a) spend a period of one month working in a facility/institution outside the Czech Republic, and b) produce one peer reviewed research paper as the first author.

There is no Master's degree programme or other one year study programmes within the veterinary programmes. While there are currently nine European Board of Veterinary Specialisation (EBVS) Diplomates within the University, there is only one resident in a training programme and no formal organised residency programme.

There is currently no national post-graduate education system.

It is the opinion of the team, that the requirements regarding Postgraduate Education as they are laid down in Annex I of the SOP are met.

12.2 Comments

One month abroad during the 4 years of the PhD program is a very short time, and there is very little that can be done in such a short time other than perhaps watching what others are doing. In many European Universities PhD students have to spend at least 6 months out of their 3-4 year program in a foreign institution, and generally such period of time is aimed at doing part of their research away from home. Often times these stays end up in being extended. In some Italian Universities PhD students get a 50% increase in their salary during the initial 6 months of their stay abroad, as an incentive to go, and PhD Schools and Departments are rewarded depending on how many of their PhD students go abroad and for how long they do.

For a Veterinary Teaching Establishment having European College Diplomates but having few or no Training Institution is a waste of resources. Diplomates should be stimulated to have their institution recognized by their respective College as a formal Training Institutions, as this allows the training of Residents. On the other hand, Universities have the responsibility to find resources to pay for Residents' salaries, although it should be underlined that for many European Colleges up to half of a PhD program can be used towards fulfilling residency requirements

12.3 Suggestions

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- 12.3.1** Innovative solutions should be considered by the faculties through which the income of PhD students could be further supplemented, particularly in their first year.
- 12.3.2** PhD students should be stimulated to spend at least 6 months of their PhD program at a foreign institution; they should be allowed to conduct part of their research abroad, and should have their salary increased for the period during which they are away from home
- 12.3.3** Consideration should be given to the establishment of an EBVS Internship program and to a further development of an EBVS Residency programme: the UVPS Brno should have as one of its a long-term strategic planning points to achieve Diplomates in each one of the 23 European Colleges.

13 RESEARCH

13.1 Findings

There is no evidence to suggest that there is a clear research strategy within the University faculties or any cohesive research effort. Research is carried out within Departments and there is little co-operation in research between Departments.

There are currently approximately 180 PhD students and each student is expected to produce one peer reviewed research paper as the lead author.

The PhD students were, in general, complimentary about the standard of equipment and facilities at the faculties and the opportunities these factors gave them to do meaningful and relevant research.

There is international co-operation in research and teaching with other faculties and institutions. There are a significant number of EU Programmes and other bilateral research arrangements.

13.2 Comments

It is the opinion of the team, that the requirements regarding Research as they are laid down in Annex I of the SOP are met.

13.3 Suggestions

- 13.3.1** The faculties should develop a clear research strategy in order to foster a cohesive research effort.
- 13.3.2** Departments within the faculties must be encouraged to co-operate in their research efforts.
- 13.3.3** International co-operation in research with exchange of personnel and ideas must be encouraged.

EXECUTIVE SUMMARY

The visitation to the University of Veterinary and Pharmaceutical Sciences (UVPS) of Brno, Czech Republic, was very well organized and every Faculty member was extremely open and transparent when further information was needed. The Self-Evaluation Report was sent on time and contained a substantial amount of information which was very helpful to explain the status of the UVPSBrno and all aspects of the veterinary training programmes offered to the students. The team was impressed with the improvements made by the Faculty since the last evaluation and was pleased to have had the opportunity to meet some excellent and enthusiastic colleagues and students.

The UVPS is a small State funded University offering 3 degree programs, of which 2 (Veterinary Medicine and Veterinary Health and Ecology, offered both in Czech and English) lead to the same degree allowing its holders to practice as veterinarians. This is an inborn anomaly which may have made some sense when it was thought out and developed in the late 1980's, but which is now facing internal as well as external criticism. The UVPS should rediscuss the option of amalgamating the two faculties, as well as changing the term *Veterinary Hygiene and Ecology* to *Veterinary Public Health*.

Both veterinary faculties have recently invested a considerable amount of time and energy in revising the curriculum increasing its practical and clinical components and elaborating strategies to stimulate high quality research. However, a vision statement is not present in the SER or on the Faculty web site, and the value of their strategic planning documents is rather limited as they both fail to set goals and intermediate targets and to identify all strengths and weaknesses.

The two faculties are organized in Sections which are divided in a high number of small departments making cooperation and coordination among faculty members as well as among departments suboptimal in some areas. The low level of state retribution makes it difficult to hire and retain highly skilled teaching staff. The education programme is balanced and fulfils adequately all EAEVE and EU requirements. A strong emphasis on research and research-based teaching is evident. The practical component of both veterinary curricula is relevant, practical works are undertaken in small groups in basic as well as clinical sciences, there is plenty of animals of all species (particularly food animals), there is a well organized 24-hr emergency service and a mobile clinic with an excellent availability of clinical cases. Basic sciences are strongly connected to clinical sciences. Teaching in food hygiene is in general very good (the UVPS has recently refurbished its own slaughterhouse on campus), and the training offered in animal welfare and in the practical application of veterinary public health, animal health and animal welfare legislation is exemplary. The level of quality of education is very high for students of the Czech programs, while students of the English programs will sometimes struggle to obtain English learning material of a quality comparable to the Czech one as well as to get access to clinical cases because of their communication problems with Czech clients.

Faculty premises are of good quality, many facilities are new or have recently been refurbished thanks to external State as well as EU funding. However, there is a varying degree of sensibility and consciousness for safety matters at both faculties as well as among students: this issue requires a careful consideration by the UVPS.

Exams can only be repeated a certain number of times, after which students have to leave the course. Although different between the two curricula, the drop out rate is fairly high for both, and needs to be seriously investigated by the UVPS. There is an excellent, brand new library (with good access to a wide range of hard copy as well as e-journals) whose opening hours should however be prolonged.

Teaching and support staff are present in adequate numbers, highly motivated and with a sense of loyalty to their institution. Their level of retribution is probably not appropriate when considering other Central European countries as well as salaries of private practice in the Czech Republic. This creates problem for the UVPS when trying to form and retain specialists. Continuing Education in the Czech

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Republic can be done at the academic level only in the Food Science sector, a legislative anomaly of the Czech Republic which prevents clinicians from the UVPS to organize CE events in the clinical fields. These CE events can only be organized by the Czech Veterinary Chamber, without the UVPS' being capable to take an active role in it. A re-discussion of the role of the 2 veterinary faculties in CE and the degree of their collaboration with the Veterinary Chamber should be high on the list of strategic issues of the UVPS. An abundance of under-paid PhD programs are available at the UVPS. PhD students are only required to spend one month abroad during the 4 years of their program, and are expected to supplement their income also by teaching. The UVPS should reconsider its policy with postgraduate education, trying to increase the number of European College Diplomates by allocating funding in particular to those PhD programs which will accept to devote part of their candidate's time for Residency training.

ECOVE DECISION:

No major deficiencies have been found.

The status of the establishment is: approval.

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Annex 1a Indicators - FVHE

Ratio for FVHE Brno, Czech Republic	Numerator/ Denominator calculated by Faculty	1/Denominator faculty figures	Established range of denominators (January 2013 denominators)	Notes
R1 p132 SER	189.9/1544	1/0.123 = 8.131	8.796 (UL)	Maximum value
R2 p132 SER	219.9/2011	1/0.109 = 9.145	9.370 (UL)	Maximum value
R3 p132 SER	154.9/1544	1/0.100 = 9.968	11.324 (UL)	Maximum value
R4 p132 SER	154.9/178.4	1/0.869 = 1.152	2.151 (UL)	Maximum value
R5 p132 SER	189.9/272	1/0.698 = 1.432	0.490 – 1.933 (Range)	Recommended range
R6 p64 SER	1945/2738	1/0.710 = 1.401	0.562 (LL)	Minimum value
R7 p64 SER	1057/1681	1/0.629 = 1.590	1.913 (UL)	Maximum value
R8 p64 SER	150/4713	1/0.032 = 31.420	2.930 - 89.091 (Range)	Recommended range
R9 p64 SER	1104/4713	1/0.234 = 4.269	0.870 - 90.029 (Range)	Recommended range
R10 p64 SER	1104/70	1/15.771 = 0.063	0.069 - 0.924 (Range)	Recommended range
R11 p115 SER	178.4/409	1/0.436 = 2.293	0.993 (LL)	Minimum value
R12 p115 SER	178.4/24364	1/0.007 = 136.569	7.786 (LL)	Minimum value
R13 p115 SER	178.4/749	1/0.238 = 4.202	0.333 (LL)	Minimum value
R14 p115 SER	178.4/1153	1/0.155 = 6.463	2.611 (LL)	Minimum value
R15 p115 SER	178.4/1471	1/0.121 = 8.246	0.506 (LL)	Minimum value
R16 p115 SER	178.4/13325	1/0.013 = 74.692	43.697 (LL)	Minimum value
R17 p115 SER	178.4/7.7	1/23.169 = 0.043	0.042 (LL)	Minimum value
R18 p115 SER	178.4/596	1/0.299 = 3.341	1.018 (LL)	Minimum value
R19 p115 SER	178.4/312	1/0.572 = 1.749	0.591 (LL)	Minimum value
R20 p115 SER	178.4/353	1/0.505 = 1.979	1.516 (LL)	Minimum value

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Annex 1b Indicators - FVM

Ratio for FVM Brno, Czech Republic	Numerator/ Denominator calculated by Faculty	1/Denominator faculty figures	Established range of denominators (January 2013 denominators)	Notes
R1 p132 SER	189.9/1544	$1/0.123 = 8.131$	8.796 (UL)	Maximum value
R2 p132 SER	219.9/2011	$1/0.109 = 9.145$	9.370 (UL)	Maximum value
R3 p132 SER	154.9/1544	$1/0.100 = 9.968$	11.324 (UL)	Maximum value
R4 p132 SER	154.9/178.4	$1/0.869 = 1.152$	2.151 (UL)	Maximum value
R5 p132 SER	189.9/272	$1/0.698 = 1.432$	0.490 – 1.933 (Range)	Recommended range
R6 p64 SER	1913/2720	$1/0.703 = 1.422$	0.562 (LL)	Minimum value
R7 p64 SER	1360/1360	$1/1.00 = 1.00$	1.913 (UL)	Maximum value
R8 p64 SER	150/4663	$1/0.032 = 31.086$	2.930 - 89.091 (Range)	Recommended range
R9 p64 SER	288/4663	$1/0.062 = 16.191$	0.870 - 90.029 (Range)	Recommended range
R10 p64 SER	288/40	$1/7.200 = 0.139$	0.069 - 0.924 (Range)	Recommended range
R11 p115 SER	178.4/409	$1/0.436 = 2.293$	0.993 (LL)	Minimum value
R12 p115 SER	178.4/24364	$1/0.007 = 136.569$	7.786 (LL)	Minimum value
R13 p115 SER	178.4/749	$1/0.238 = 4.202$	0.333 (LL)	Minimum value
R14 p115 SER	178.4/1153	$1/0.155 = 6.463$	2.611 (LL)	Minimum value
R15 p115 SER	178.4/1471	$1/0.121 = 8.246$	0.506 (LL)	Minimum value
R16 p115 SER	178.4/13325	$1/0.013 = 74.692$	43.697 (LL)	Minimum value
R17 p115 SER	178.4/7.7	$1/23.169 = 0.043$	0.042 (LL)	Minimum value
R18 p115 SER	178.4/596	$1/0.299 = 3.341$	1.018 (LL)	Minimum value
R19 p115 SER	178.4/312	$1/0.572 = 1.749$	0.591 (LL)	Minimum value
R20 p115 SER	178.4/353	$1/0.505 = 1.979$	1.516 (LL)	Minimum value

