

**European Association
of Establishments for Veterinary Education**



VISITATION REPORT

To the Faculty of Veterinary Medicine, Bursa Uludag University, Bursa, Turkey

On 24 – 28 February 2020

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Introduction

The Faculty of Veterinary Medicine (FVMB), Bursa Uludag University (BUU) was founded in 1978 as the 4th veterinary faculty in Turkey.

The clinics of the Faculty were originally established in the city centre (Merinos campus) in 1981 and were moved to the current Animal Hospital building in 2008. Building A comprising departments, laboratories and seminar rooms was built in 2007. The main building including administrative offices, lecture halls, teaching laboratories, conference hall, computer room, and reading room was constructed in 2009.

The Veterinary Teaching and Research Farm (VTF) was established in 1987.

In 2007 the present organisation of the Faculty was established with five main divisions namely: 1. Basic Sciences, 2. Preclinical Sciences, 3. Clinical Sciences, 4. Food Hygiene and Technology, 5. Zootechnics and Animal Nutrition.

FVMB was first evaluated in November 2004 by a team of experts appointed by the European Association of Establishments for Veterinary Education (EAEVE). The team pointed out several major and minor deficiencies and proposed suggestions. A follow-up Visitation was carried out in 2008 and the FVMB gained Conditional Approval Status after this visit. EAEVE Approved Status was obtained after the last EAEVE visit in 2010. Since then, several amendments affecting the study programme and facilities have been introduced.

In December 2019 the experts received the Self-Evaluation Report (SER) which used the Standard Operating Procedures 2016 of the ESEVT as a template.

The SER gave accurate general information about the status of the Faculty, although there were some discrepancies in detail. Some areas of the SER were further substantiated before and during the Visitation.

FVMB is located in Bursa in the western part of Turkey. Bursa is the 4th largest city in Turkey with 3 million inhabitants. The Faculty is located in the western part of Bursa in an area well served with public transportation. Generally it is an area with a high potential for livestock,

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poultry and pet animals. There are numerous dairy/poultry farms and food production premises in close vicinity of the faculty. The FVMB considers themselves as one of the leading veterinary schools in Turkey.

The main facility occupies a total area of building square meters 25,920 m² (in 5 buildings) and 12,000 m² open area. The central university library is next door to the main buildings. And the veterinary teaching farm is 2 km away from the main building.

The Department of Aquatic Animal Diseases was established in 2011. FVMB was accredited in 2015 by the national Association for Evaluation and Accreditation of Educational Institutions and Programs of Veterinary Medicine (VEDEK) for a period of seven years.

Licences of the Veterinary Teaching Hospital (VTH) and Food Processing Unit were updated in 2013 as requested by the Ministry of Agriculture and Forestry. Furthermore, a Diagnostic Laboratories Coordination Committee was establishment and licences of nine related laboratories were obtained from the Ministry of Agriculture and Forestry in 2014.

The education system and the curriculum have been adapted to the Bologna Process since the last EAEVE visit. This process requires students to complete 300 ECTS for graduation. Thirteen new elective courses were added to the curriculum.

Several improvements were made at FVMB after the last EAEVE visit:

- The large animal and horse clinics were renovated.
- The necropsy hall was renovated.
- The large animal section of the radiology unit was renovated.
- The physical capacity of the VTH pharmacy was enlarged
- Drug Dosing Unit and a Chemotherapy Administration Unit were added.
- A quarantine building for farm animals was established in the VTF.
- A new food production unit was established.
- The capacity of the cattle barns was increased.

Laboratory for Dept. of Genetics and Dept. of Disease of Aquatic Animals have been established. Additionally, Virology (Molecular Virology Lab), Histology (Cell Biology Lab), Food Hygiene and Technology (Food Microbiology Research) and Molecular Pharmacology Laboratories were established.

New equipment including mobile doppler ultrasound, intensive care units, image transfer system for small animal radiology, and automated fluorescence imaging system have been purchased.

Expenditures have increased on the basis of the consumer price index and revenues reduced significantly. Government's cutbacks from the public bodies had a negative impact on FVMB's efforts to increase the number of staff and to improve the infrastructure needed to adapt the ideal requirements of the European Higher Education Area. The decreased total budget due to the financial crisis in recent years has hindered new investments associated with education and renovation plans. The increased Euro/Lira exchange rate has changed considerably creating a negative financial situation mainly because most of the instruments etc. are imported and hence have to be paid in foreign currency using a poor conversion rate. This has also led to inadequate number of support staff.

The higher education system in Turkey is organized and monitored by the HEC in Ankara. HEC tends to increase the number of students annually without consulting the FVMB.

Frequent changes in the administration of the University and the Faculty during last four years have resulted in a less effective function of the administration.

The ESEVT SOP 2016 is valid for this Visitation.

1. Objectives and Organisation

1.1. Findings

1.1.1. Brief description of the Strategic Plan

There is a very detailed SWOT-analysis clearly connected to the FVMB and the University mission and vision statements and followed up by an operating plan.

The mission statement is subdivided into 2 parts: one being political and referring to Kemal Atatürk's principles and the other part focusing e.g. on community service, animal health and welfare, improvement of the relationship between animals and human health, and environmental protection.

The objectives are clearly described and include striving for a national and international level of quality of teaching, knowledge production and public services; international student and staff exchange; undergraduate and postgraduate programs in English besides Turkish; to publish articles in highly prestigious international journals and to receive high citation rates; to increase the number of academic staff managing extramurally funded national and international research projects; to be a reference centre for the solution of veterinary related problems; to become a continuing education centre in Turkey; to follow-up, regulate, and continuously improve processes according to BUU QA policy.

1.1.2. Brief description of the Operating Plan

The operating plan is clearly described and subdivided in 4 major groups – teaching, research, management and support services, and social impact. The schematic presentation includes activities and time frames.

1.1.3. Brief description of the organisation of the Establishment

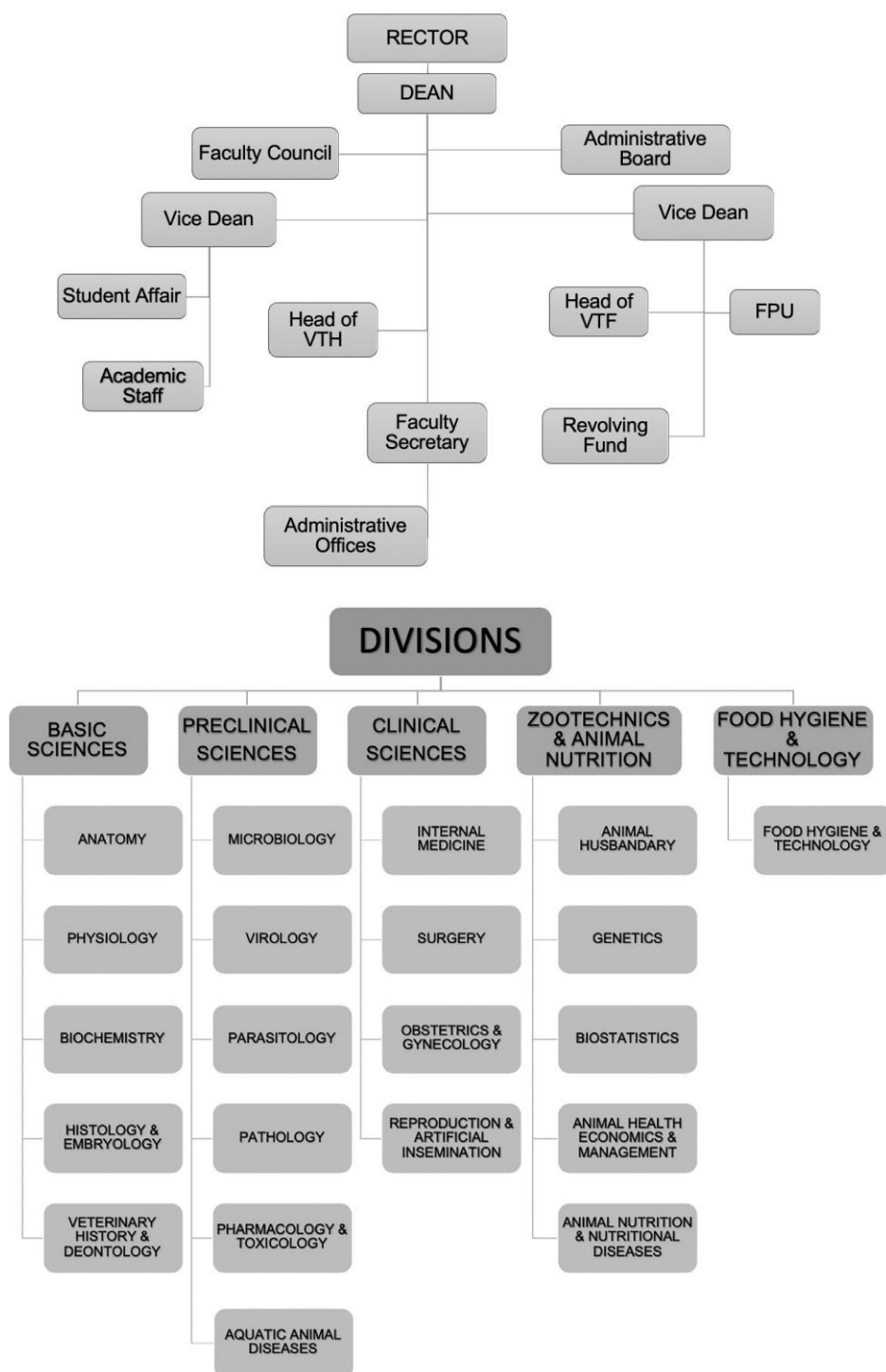
The **Rector** is selected and appointed by the Turkish president from a group of six persons proposed by the Higher Education Council (HEC). The Rector is appointed for four years and can only serve for a maximum of two terms.

The Rector has the power to propose three candidates to HEC for the appointment of the **Dean**. The Dean is appointed by the Rector for three years and can serve more than one term.

Vice deans are appointed by the Dean for three years.

Heads of Divisions (5) are appointed by the Dean from the candidates proposed by the Head of Departments (21). However, in FVMB traditionally all the academic staff of that division contributes to the election of the candidate to be proposed to the Dean. The Head of Division is appointed for three years and can serve for more than one term.

Department Heads are elected by the academic staff of the Department and appointed by the Dean for three years. However, if there is only one professor in the department, that professor automatically serves as the Department Head.



With respect to divisions and departments please refer to the organisational chart above. The FVMB has 24 commissions, committees, councils, and boards. For a full description please refer to page 8 – 9 of the SER including:

- education and teaching committee
- accreditation committee
- QA-committee
- academic promotion and evaluation committee

- R&D strategic working committee
- Biosecurity commission
- Veterinary Teaching Hospital

1.1.4. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the Strategic Plan and organisation of the Establishment

Construction of the strategic plan of the BUU is governed by national legislation (law #5018) and FVMB is part of this plan. R&D and Strategic Plan Commission of FVMB organizes face-to-face meetings with internal and external stakeholders to determine priority objectives and following these consultations the strategic goals are established. These goals are approved by the Faculty Council and become part of the university strategic plan after approval by the University Strategic Plan Commission. University Strategic Plan objectives are followed annually by the related commission and the QA Commission.

External stakeholders are invited twice a year in two different Committees, the Employer Advisory Committee and the Alumni Advisory Committee, and their input is really considered by the Education and Teaching Committee for curriculum improvement.

One student representative (elected) is invited in four Councils/Committees: the Faculty Council, the Education and Training Committees, and the two previously mentioned Advisory Committees. Technical staff is represented in three bodies.

1.2. Comments

The FVMB SWOT-analysis incorporates many details. Generally, the mission, vision and objectives are clearly described and the operating plan is methodical, controllable and embraces all the ESEVT Standards.

The student representation is partly formal and partly informal. Formally the students are represented in the Faculty Council, the Education and Teaching Committee, the Employer Advisory Committee and the Alumni Advisory Committee. Informally academic staff involve students in day-to-day discussions about planning of teaching (lectures, practicals, demonstrations) e.g. and each class appoints a representative who is consulted by the FVMB. Input from stakeholders is secured with stakeholder representation in both the Employer Advisory Committee and the Alumni Advisory Committee.

The overall organisation of the Faculty is adapted to and allows the implementation of the strategic plan. It can be mentioned that, in the Clinical Sciences Division, the disciplines “Anaesthesiology” and “Diagnostic Imaging” do not appear, and remain under control of the Surgery and Internal Medicine Departments, respectively.

It is important to bear in mind that the autonomy of the faculties in Turkey is influenced by an almost 40-year-old decision that “In 1981, the administration of higher education in Turkey was comprehensively restructured by the new Higher Education Law. The system thereby became centralized with all higher education institutions tied to the HEC. The academic organization at the faculty has to be in accordance with these laws.”

Further to this the FVMB clearly mentions that “Due to frequent changes in the administration of the University and Faculty, commissions contributing to high quality education and management have worked slower than it should have by the time. This is an important factor causing undesired situations.”

Finally the FVMB mentions that “In the last years, increase in the number of newly established universities and faculties nationwide causes older institutions to get lower rates from the national central budget for high education.” The Team was made aware that there are currently 32 government veterinary schools operating in Turkey.

1.3. Suggestions for improvement

The Faculty should consider widening the existing inclusion of support staff and students in the decision processes, by including at least two students per committee, and by including students in the Animal Welfare council and the commission on social, sports and cultural activities, for example.

1.4. Decision

The Establishment is compliant with Standard 1.

2. Finances

2.1. Findings

2.1.1. Brief description of the global financial process of the Establishment and its autonomy on it

BUU is a state university and the biggest proportion of its budget comes from the Government. Every year the Strategy Development Unit of the university estimates next year's budget in June-July and the proposed budget is sent to the Ministry of Treasury and Finances for approval. The budget transferred to the university is allocated to the faculties according to the needs. Salaries and social insurances, various expenses (cleaning, communication, advertising, maintenance-repair, training supplies, travel costs, internet, heating, water and electricity) of FVMB are covered by the Rectorate. The annual government budget is inflation-corrected at least for salaries.

In addition to the general budget, the revolving fund from the hospital, faculty farm, consultancy service fees, workshops and other diagnostic laboratory services, is the second largest proportion of the faculty budget. And out of these the faculty farm (milk, dairy products, eggs, poultry, meat and meat products) and the clinics supply the biggest portion.

Furthermore, an important income source is extramural research funds which come mainly from The Scientific and Technological Research Council of Turkey, TUBITAK. There are no active EU-funded projects currently.

The Dean prioritizes spending of allocated funding according to current legislation and demand from the academic units.

Turkish students do not pay tuition. However, students that do not graduate within the stipulated 5 years pay 386 TL/y in tuition. International students pay 1,158 TL/y in tuition. Tuition fee goes directly to the University budget.

2.1.2. Brief description of the budget (expenditures, revenues, balance) of the last 3 years

The budget for the last 3 FYs has seen a constant increase in expenditures, a constant increase in revenues and a constant increase of the balance. FVMB transfers 1% of the revenue to the state budget. Five (5) % of the revenue provided from the services is transferred to the Scientific Research Funds (SRF) of the University for funding of future research projects.

The Team gained additional information for tables 2.1.1 and 2.1.2 with the figures transformed into Turkish lira (TL) which due to the changing conversion rate gives a different and very positive picture of the Establishment's financial situation.

Table 2.1.1. Annual expenditures during the last 3 academic years (in TL)				
Area of expenditure	2018	2017	2016	Mean
Personnel	18.466.496,22	15.496.700,94	13.316.563,00	15.759.920,05
Operating costs	3.502.227,35	4.538.097,34	4.381.873,01	4.140.732,57
Maintenance costs	90.038,97	127.330,21	145.060,92	120.810,03
Equipment	268.493,21	39.877,62	123.562,68	143.977,84
Total expenditures	22.327.255,75	20.202.006,11	17.967.059,61	20.165.440,49

Table 2.1.2. Annual revenues during the last 3 academic years (in TL)				
Revenues source	2018	2017	2016	Mean
Public authorities	18.485.320,00	15.502.500,00	13.316.999,30	15.768.273,10
Clinical services	1.489.783,27	1.340.123,85	972.730,00	1.267.545,70
Diagnostic services	162.937,99	132.381,99	119.332,99	138.217,66
Revolving fund	3.688.710,34	4.814.797,50	4.221.344,80	4.241.617,54
Research grants	1.940.190,00	802.009,80	771.334,93	1.171.178,24
Total revenues	25.766.941,61	22.591.813,14	19.401.742,02	22.586.832,25

2.1.3. Brief description of the projected budget (expenditures, revenues, balance) of the next 3 years

It is expected that the central budget provided by the government will increase by 10% in 2020 and the years to follow. Additional revenue is expected from the central budget (by the Rectorate) and revolving fund upon full completion of the new facility for food processing.

2.1.4. Brief description of the planned or on-going investments

A new facility for food processing will be completed by the end of 2020, and the Team inspected the facilities which were already in use for teaching purposes. Construction of a new anatomy building will be started in 2020 and the Vice-Dean for finances and the Rector assured the Team that the financial basis for this activity has been secured.

2.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the budget of the Establishment

The budget expenditure (under the authority of the Faculty) is determined by the Dean's Office in accordance with the needs of the departments and the units.

The revolving fund budget expenditure (under the authority of the Faculty) is determined by the Dean's Office, prioritizing the needs of the units having revolving fund income.

Machinery and equipment purchases and building repairs' expenditures (under the authority of the University) are determined by the Rectorate in accordance with the demands of the units in consultation with the Dean's Office.

The research budget from SRF is allocated to the principal investigator of the accepted projects.

2.2. Comments

The financial situation has been on a constant, positive trajectory since 2013. It is noteworthy that the revenues from the government have been increased with more than 100%. The

revolving fund has followed a more unpredictable course due to the fact that it includes farm sales and therefore is sensitive to variation in market prices. It is important to note that the exchange rate for Turkish Lira against Euros (Euro/TL) has increased from 3.70, via 4.50 to 6.00 in 2018. This means e.g. that for domestic commodities there is a positive situation (increased annual budget in Lira) but for imported goods there has been a huge increase in prices due to the poorer conversion rate.

2.3. Suggestions for improvement

None.

2.4. Decision

The Establishment is compliant with Standard 2.

3. Curriculum

3.1. General curriculum

3.1.1. Findings

3.1.1.1. Brief description of the educational aims and strategy in order to propose a cohesive framework and to achieve the learning outcome

Competency criteria of the veterinary profession are determined by the Higher Education Council within the framework of the European Union criteria (the modified European Directive 2005/36/EC) and national regulations (VEDEK) established for veterinary profession. Then, each Faculty is responsible to implement the educational programme to meet these criteria. The FVMB educational committee meets two times a year and has defined clear statements of the general learning outcomes and skills for the graduates. Twelve key learning outcomes are defined, around which the curriculum is built.

The Bursa five years veterinary curriculum is build following a full ECTS system. The whole curriculum counts for 300 ECTS. Each year is divided in two semesters of 14 weeks each, except the 10th semester which is 16 weeks. Every semester students have to take 30 ECTS.

The skeleton of the curriculum is designed as follows:

- during the first 2 years, the students are taught basic sciences, including biosafety;
- the third year is devoted to pre/paraclinical sciences, but is ended by a mandatory summer training period in the VTH for 6 weeks (310 h);
- clinical mandatory courses are introduced during the 4th year (companion animals, large animals) with addition of food and milk hygiene and technology and livestock economics, for a total of 412 h of clinical animal work;
- during the 9th semester (last year), the students have to choose one of the modules on:
 - o Farm Animal Medicine and Husbandry (FAMH)
 - o Small Animal Medicine (SAM)
 - o Poultry Medicine and Husbandry (PMH)
 - o Food Hygiene and Technology (FHT)
- The 10th semester is based on practicals only, on the selected modules, and the students have to prepare and present their graduation thesis.

In the online study guide every unit of study has a clear study sheet with all the relevant information on the course as content, evaluation, learning outcomes etc. The learning outcomes of every course are assessed for their contribution to the general programme qualifications.

3.1.1.2. Brief statement if all EU-listed subjects are taught in the core curriculum to each student (independently of the tracking system)

All EU subjects are included and covered in the curriculum. However, some topics are only offered to students as electives whereas they should be included in the core curriculum (see for example 3.3 for diagnostic imaging and 3.5 for HACCP and meat inspection).

3.1.1.3. Brief description of how curricular overlaps, redundancies, omissions and lack of consistency, transversality and/or integration of the curriculum are identified and corrected

The curriculum supervision is made by the Vice-Dean in charge of Study Affairs, in strong collaboration with the Education and Teaching Committee (E&TC), which examines the needs for changes in the veterinary curriculum originating from the teacher of a course, from meetings with the Alumni Advisory Committee or the Employer Advisory Committee, and from feedback from students. The E&TC elaborates proposals which go to the Faculty Council for approval. Finally they are presented to the University Senate for final approval.

3.1.1.4. Description of the selection procedures of the Electives by the students and the degree of freedom in their choice (e.g. what happens when too many students select one specific track)

Elective courses can be included in the student's curriculum in the first 8 semesters for 3 ECTS per semester. From the 9th semester on students have to choose one out of 4 modules (Farm Animal Medicine and Husbandry (FAMH), Small Animal Medicine (SAM), Poultry Medicine and Husbandry (PMH), Food Hygiene and Technology (FHT)). Besides following their own modules, students can also select elective courses from other modules. The choice of all electives is totally free for all students, sometimes creating problems in the elective courses group sizes.

3.1.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the curriculum

Elements of student surveys, organised twice a year, combined with suggestions from internal and external stakeholders lead to proposition of changes in the curriculum. These changes are discussed and finally recommended by the E&TC. Finally they are submitted for approval by the Faculty Council after which they are published in the Education and Teaching Guide which is updated annually.

3.1.2. Comments

Due to the overall organisation of a five-year curriculum with a tracking system during the last year, the total core and mandatory clinical exposure to all students (indicator I5) had to be recalculated according to the track chosen by students. The same situation applies to the number of hours of FSQ and VPH training (indicator I6). The results are given as follows:

	PAMH	SAM	PMH	FHT
Total number of hours of clinical training (I5)	1334	1342	862	898
Total number of hours of FSQ & VPH training (I6)	196	196	196	966

In all cases, the students' clinical exposure is above the ESEVT median values. However, due to the 5 years curriculum, this is made possible by organising some other parts of the curriculum as electives instead of mandatory (see 3.1.1.2). Thus, some topics are briefly introduced and described in the core curriculum, but the complements are only delivered if the students choose the corresponding electives, so that the curriculum is partially compliant with Substandard 3.5.

3.1.3. Suggestions for improvement

The Establishment should consider increasing the curriculum length (for example 5.5 years) in order to increase the students' mandatory core curriculum and to better cope with the increasing number of students. However, it has to be noticed that such a decision is only possible if the number of students is decreased, in order to maintain the I1 indicator at an acceptable value (see 7.1).

3.2. Basic sciences

3.2.1. Findings

3.2.1.1. Brief description of the theoretical and practical education in basic sciences

All EU basic subjects and sciences are covered at a good and up-to-date level. In addition to the mandatory courses, the students have to choose 3 ECTS among an impressive panel of electives, including sports etc.

The practicals that are delivered as biochemistry, physiology, microbiology etc. are done in shared student laboratories with appropriate equipment. Students are divided into groups of acceptable size and each group is provided with a supervisor. Due to the relatively low number of support staff (technicians) in the relevant departments, PhD students are largely involved in this supervision.

In anatomy, a collection of bones and skeletons is available, allowing a very good hands-on approach of osteology. Some plastic anatomical mannequins (including a pig) are available. Dissections are performed by students themselves. The cadavers are mainly cows and goats. Horses are not available and small animals are very rare, so that a hands-on approach to the anatomy of these species is not possible. Cadavers are maintained immersed in large tanks containing water added with formalin. Fresh cadavers are not used, neither are plastinated preparations (see 5.1.).

Except in anatomy where the volume of hands-on activity is correct, teaching methods are mainly based on lectures during the first two years.

3.2.2. Comments

The new anatomy building that is planned has to be built as quickly as possible in order to allow modernisation of the teaching methods, to avoid formalin and to develop the use of plastinated organs.

The theoretical vs. practical ratio could be reduced, allowing time for more interactive teaching activities. As an example, lectures represent around 66% of the total face-to-face teaching hours during the 1st and 2nd year, respectively, meaning that the students are mainly passive during the delivery of science.

The online learning management system provided by the BUU (UKEY) is of excellent standard, but is also mainly used by teachers to deliver PDF or PPT files that the students can see online or download, instead of more interactive activities.

3.2.3. Suggestions for improvement

The Establishment should consider a progressive transition towards a more interactive pedagogical approach during the first 3 years, and to increase the number of sessions devoted to case/problem based training.

3.3. Clinical Sciences in companion animals (including equine and exotic pets)

3.3.1. Findings

3.3.1.1. Brief description of the theoretical, practical and clinical education in Clinical Sciences in companion animals

The curriculum in clinical sciences includes the subjects listed in the Annex 5.4.1. of the EU Directive 2013/55/EU: obstetrics, reproduction and reproductive disorders, diagnostic pathology, medicine and surgery, including anaesthesiology, clinical practical training in all common domestic animals, preventive medicine, diagnostic imaging, state veterinary services and public health, veterinary legislation, forensic medicine and certification, therapy in all common domestic animal species, and propaedeutics of all common domestic animal species. Every student receives a different number of hours of teaching in clinical sciences, depending on the track, as shown in chapter 3.1.2. Clinical courses are mainly introduced to students during the 7th and 8th semesters, and include Internal Diseases of Large Animals, Clinical Practice, Large Animal Surgery, Anaesthesiology, Reproductive Endocrinology, Obstetrics and Gynaecology, Internal Diseases of Small Animals, Small Animal Surgery, and Andrology and Artificial Insemination.

During the 9th semester, the student chooses a specific track. Three of the four tracks include teaching in Clinical Sciences: Farm Animal Medicine and Husbandry, Small Animal Medicine, and Poultry Medicine and Husbandry. Equine teaching is included in the FAMH track.

During the 10th semester students take intensely part in practical training in the form of clinical rotations within their selected track.

3.3.1.2. Description of the core clinical exercises/practicals/seminars in companion animals prior to the start of the clinical rotations

Two courses, Professional Practice Course and Introduction to Clinical Sciences, are given to the students before starting the clinical rotations. These subjects are taken during the 3rd and 5th semester, respectively, and include teaching on animal handling, restraint and safe practice. Twenty-eight hours of practice are included in every course. The teaching is shared by different Departments of the Establishment.

3.3.1.3. Description of the core clinical rotations and emergency services (both intramural VTH and ambulatory clinics) in companion animals and the direct involvement of undergraduate students in it (responsibilities, hands-on versus observation, report writing)

A summer training of 240 hours is included in the curriculum at the end of the 6th semester. Students have clinical rotations during the 7th, 8th, 9th and 10th semester. During the 7th, 8th and 9th semester, students rotate two days a week (8 hours/week) among four different Departments: Surgery, Internal Medicine, Obstetrics and Gynaecology, and Reproduction and Artificial Insemination. They also rotate 4 hours in the Department of Pathology during the 7th and 8th semester. These rotations are included in the courses Clinical Practice I, II and II and each covers 112 hours of clinical training.

Rotations during the 10th semester are different, depending on the track selected by the student. The specific contents of the rotation are related to the area of interest of the student.

3.3.2. Comments

The curriculum of FVMB includes the subjects listed in the chapter of Clinical Sciences in the Annex V of EU Directive 2005/36/EC as amended by directive 2013/55/EU.

Some clinical subjects, such as “Diagnostic Imaging Techniques”, “Clinical Pathology” or “Internal Diseases of Exotic Animals”, are included in the curriculum as elective courses, but training in these fields is also included in different mandatory subjects of the curriculum.

“Radiology” is an obligatory subject given during the 6th Semester, but other diagnostic imaging techniques are included in the syllabus only as elective subjects.

Some basic preclinical courses, such as “Topographical Anatomy”, are given at the same time as other related clinical courses, such as “General Surgery”, which needs a good coordination between disciplines or a change in the syllabus that can assure the previous learning of “Topographical Anatomy”.

Teaching strategies in the area of Clinical Sciences are based on lectures, laboratory and desk-based word and clinical animal work; seminars, supervised self-learning and non-clinical animal work are absent.

The work carried out on small animals is noteworthy, with a number of cases that facilitate learning. The size of the student groups is variable, depending on the activity and the number of teachers in each specialty. This size is also affected by the fact that students of different subjects (Clinical Practice I and III) are trained with the same clinical cases, with the same academic staff and with PhD students, increasing the size of the group. The active participation of students in some activities, such as surgery, is limited to students of the track in Small Animal Medicine, while students in other tracks only participate as observers, making difficult the acquisition of Day One Competences.

Hands-on training in some companion animal species, specifically in equines, is limited based on the low caseload attended intramurally and extramurally available for teaching.

Equine patients are rarely presented at the hospital and therefore student exposure to real hands-on clinical equine patient work is limited. The Establishment has organised compensation for this by bringing horses weekly from the vocational stables (described elsewhere). However, the exercises students perform on these horses during routine clinical teaching are mostly of propaedeutic and basic examination nature.

Additionally, the Establishment has an agreement with a local jockey club (private owned stable with a large number of race horses in training with an equine hospital facility and 7 vets working there). The FAMH module students visit this location weekly 4 h/week with an individual group attending every 2-4 weeks. During those visitations the students are able to observe rather versatile busy equine practice concentrating mostly on orthopaedics but also including surgery and some internal medicine. There is no hands-on training. Students are accompanied by faculty staff that are not necessarily specialised in equine practice (e.g. Associate Professor or a Professor in certain areas of equine medicine).

Student exposure to equine ambulatory practice or emergencies is very low.

There are no practitioners/Professors/Associate Professors among the staff members concentrating solely on equine medicine and diseases. Equine cases and teaching are taken care of by veterinarians and PhD students from other fields, mostly from the general large animal practice. There are large animal veterinarians among the staff members who are more experienced with treating equine diseases and they are often concentrating on the equine patients.

3.3.3. Suggestions for improvement

It is suggested to include the full teaching of Diagnostic Imaging Techniques in the curriculum as a mandatory subject.

Clinical, practical training in equines must be increased, in order to enhance hands-on training of the students with these animal species, especially in sick animals. Strategies to increase the intramural and extramural caseload in equines should be implemented to assure the acquisition of the Day One Competences.

3.4. Clinical Sciences in food-producing animals (including Animal Production)

3.4.1. Findings

3.4.1.1. Brief description of the theoretical, practical and clinical education in Clinical Sciences in food-producing animals

The curriculum is compliant with the EU Directive 2005/36/EC (as amended by directive 2013/55/EU) and its Annex V.4.1. All subjects are covered by the curriculum hours in clinical sciences in food-producing animals. Pre-clinical courses include theoretical and practical activities during the first six semesters. Clinical subjects concerning food-producing animals are taught, from the 7th semester to the 9th semester, in theoretical courses (Internal Diseases of Large Animals I, Large Animal Surgery, Obstetrics and Gynecology I, Internal Diseases of Large Animals II, Obstetrics and Gynecology II, Andrology and Artificial Insemination, Public Health In Veterinary Medicine, Judicial Medicine) or practical courses (Clinical Practice I, Clinical Practice II and Clinical Practice III).

In the 10th semester students can implement their clinical competences on Farm Animals or Poultry if they choose the elective module on “Farm Animal Medicine and Husbandry” (FAMH- 22 ECTS) or “Poultry Medicine and Husbandry” (PMH - 22 ECTS), respectively.

Moreover, the students can choose farm animal clinics as EPT locations for their “Summer Internship” (4 ECTS) during the 8th semester. In this case EPT is supervised by practitioners.

In Appendix 5 are reported the course plans and rotation programs. Details on curriculum, including syllabi, are reported on the website

<http://bilgipaketi.uludag.edu.tr/Programlar/DetayENG/76?AyID=25>.

3.4.1.2. Description of the core clinical exercises/practicals/seminars in food-producing animals prior to the start of the clinical rotations

Core pre-clinical subjects regarding food-producing animals are taught during Year 2 and 3 of core veterinary program.

Practical activities are included in Physiology II, Professional Practice, Introduction to Clinical Sciences and General Surgery.

Students rotate during the 7th, 8th and 9th semester in the Department of Internal Medicine, Surgery, Obstetrics and Gynaecology, Reproduction and Artificial Insemination and Pathology.

The number of students per group is 6-30 depending on subjects and available animals (see SER table 5.1.2)

3.4.1.3. Description of the core clinical rotations, emergency services (both intramural VTH and ambulatory clinics) and herd health visits in food-producing animals (i.e. ruminants, pigs and poultry) and the direct involvement of undergraduate students in it (responsibilities, hands-on versus observation, report writing)

All students are involved in clinical rotation during Clinical Practice I, Clinical Practice II and Clinical Practice III.

Organisation of rotation in clinical common activities is reported in the following table:

Departments	# of lecturers	9 th Semester n=123		8 th Semester n=145		7 th Semester n=159	
		Small Animals	Large Animals	Small Animals	Large Animals	Small Animals	Large Animals
Internal Medicine	10	14 (14h)	15 (14h)	19 (14h)	18 (14h)	26 (18h)	27 (17h)
Surgery	4	16 (14h)	15 (14h)	18 (14h)	18 (14h)	26 (18h)	27 (17h)
Obstetrics and Gynecology	6	16 (14h)	15 (14h)	18 (14h)	18 (14h)	26 (17h)	27 (17h)
Reproduction and Artificial Insemination	7	30 (28h)		36 (24h)		6 (4h)	
Pathology	6			6 (4h)		6 (4h)	

Clinical rotation in food-producing animals, with direct involvement of students divided in small groups, are planned in the elective activities of FAMH (584 hours) and PMH (112 hours) modules.

Ambulatory clinics is an on-call service. During the fourth year students participate at least at 4 scheduled farm visits. Students in FAMH participate at least to 11 scheduled activities.

During common clinical activities (1st - 4th year) students observe the teacher, there is hands-on training in the 5th year in elective module.

3.4.1.4. Brief description of the theoretical and practical education in Animal Production

Animal production subjects are covered by the following courses: Zootechnics I, Zootechnics II, Animal Breeding, Livestock Economics. Basic principles of aquaculture are taught in “Aquaculture Management and Biotechnology”.

Topics on Herd Health Management are included in the elective FAMH and PMH modules.

3.4.2. Comments

The subjects listed in the EU Directive are covered by the curriculum dedicated to clinical sciences in food-producing animals (including animal production).

Clinical activities are mainly carried out in elective courses and modules. Due to the module system and a large number of elective courses, students do not necessarily have the equal opportunity to acquire Day One Competences in clinical production animal medicine.

3.4.3. Suggestions for improvement

The number of elective courses for food-producing animals, including modules, should be reduced and more clinical hands-on activities implemented in the core curriculum.

3.5. Food Safety and Quality (FSQ)

3.5.1. Findings

3.5.1.1. Brief description of the theoretical and practical education in FSQ

Food Safety and Quality is taught with the following mandatory subjects: Food Hygiene and Technology in 6th semester (3 ECTS lectures/practicals), Milk Hygiene and Technology I in 7th semester (4 ECTS; lectures/practicals), Meat Inspection and Technology in 8th semester (3 ECTS lectures/practicals) and Public Health in Veterinary Medicine in 9th semester (2 ECTS; lectures).

There are also elective subjects related with FSQ like: Meat Hygiene and Technology (3 ECTS), Milk Hygiene and Technology II (3 ECTS), Food Safety, Control and HACCP (4 ECTS), Poultry Products and Technology (3 ECTS), Aquaproducts Hygiene (2 ECTS) and graduation papers in FSQ (26 ECTS).

The study curriculum builds on the expectation that students have gained the adequate prerequisite knowledge and skills in prior courses focused on Food Hygiene. (e.g. anatomy, animal hygiene and welfare, microbiology, pharmacology, pathomorphology).

According to the curriculum students must participate in meat examination practice (2 hrs/week) in the slaughterhouse but the number of the visit (hours) is not the same each year (e.g. last year every student visited cattle slaughterhouses 4 times, this year they expect to visit 3 times). In 10th semester there is a rotation program which includes a Food Hygiene and Technology module (29 h in Food Hygiene and Technology, 3 h in Aquatic Animal Diseases, 3 h in Pharmacology and Toxicology, 3 h in Anatomy/Histology and Embryology for one week) but it is not mandatory to participate in the FSQ module. Students can choose the track upon their interest. Ordinary students participate in classes in the Faculty’s meat processing

and dairy plant but they are not fully involved in “hands on” activities. Extramural, summer practices on FSQ are not obligatory for each student. The students are taught theoretically how to perform ante- and post-mortem inspection of pigs. In practice it is not performed because of absence of pigs. Some aspects of Food Microbiology are included in subjects which are mandatory for each student but there is also electives related with this topic. HACCP theory is not included in mandatory subject, it is only taught as an elective subject.

3.5.1.2. Description (timing, group size per teacher,..) of the teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

Students have classes in meat inspection in slaughterhouse (48 h), on meat technology in meat processing plant (48 h), on milk and dairy technology in Faculty dairy plant (48h). The group during classes in slaughterhouse are 77 students (group B) and 44 students (group A). During the on-site visitation they are divided into smaller groups (10-12 students). There are no official agreements with slaughterhouses and visits are arranged based on private connections.

The class in slaughterhouse lasted about 30 minutes for each group and students did not see the slaughtering process. They were familiar with documents related to the animal transportation and delivery. The slaughterhouse was not well protected against cross-contamination, the equipment and infrastructure were in bad condition and the meat was handled and transported against hygienic rules. Students wore clothing which does not prevent against cross-contamination. The animal welfare rules were inadequate.

Students have also practical classes in Faculty’s meat processing plant, which is brand new and well equipped.

The FVMB dairy plant is equipped for producing different sorts of dairy products (cheeses, yoghurts, ayran) but GHP rules are not completely met (e.g. cans for packaging of cheese were unclean).

3.5.2. Comments

In the external slaughterhouse, EU Regulations about GMP/GHP and HACCP rules (EU Reg 852/2004 and 853/2004) are not fully observed, so that it provides a suboptimal environment for students visits. The situation is the same in the Faculty’s milk processing plant where the GMP/GHP are partially inadequate.

The knowledge about FSQ which every student gets does not cover all required aspects (e.g. insufficient knowledge about HACCP).

The biosecurity procedures during classes on FSQ are inadequate (e.g. students enter the premises in their own white coats, without clean gum boots, and they dress in protective clothing outside the building, also see 4.1.5).

3.5.3. Suggestions for improvement

It is suggested that the Faculty establishes a contract with an up-to-date slaughterhouse and defines a fixed number of mandatory visits/hours per student under overall supervision of a teacher.

The suggestion that is made in 3.1.3 (increasing the curriculum length) will also allow for further development of some subjects like HACCP in the mandatory part of the curriculum.

3.6. Professional knowledge

3.6.1. Findings

3.6.1.1. Brief description of the theoretical and practical education in professional Knowledge

The subject Professional Knowledge is taught during the studies. It includes Professional Ethics and Behaviour (14h of lectures), Veterinary Legislation (14h of lectures), Veterinary Certification and Report Writing (14h of lectures), Communication Skills (16h of seminar work), Practice Management and Business (14h of lectures) and Information Literacy and Data Management (14h of lectures).

Additionally, students can choose elective courses concentrating on the subject of professional knowledge.

3.6.1.2. Brief description of the organisation, selection procedures and supervision of the EPT

All students take part in extramural practical training “Summer Internship” during the 8th semester of the studies consisting of 20 workdays (160 hours). Students are allowed to choose the EPT location according to their own preferences (for example a veterinary clinic, farm, laboratory, state veterinary office, feed production plant); the Internship Committee will review and accept the training locations beforehand. During this internship students provide themselves with accommodation.

During the 10th semester students take part in EPT “Spring-Semester Internship” within their chosen track (SAM, FAMH, PMH, FHT). The EPT locations are organised and accepted by the respective academicians in charge of the study module in question. The Spring-Semester Internship consists of 20 days (160 hours). For example, students enrolled in the FAM module train in a private dairy farm, following the farm veterinarian in daily veterinary procedures but also matters related to taking care of the animals in general. Farms are monitored and accepted by responsible academic staff. Students in the FHT module enrol in EPT with 48h in a slaughterhouse in Akcalar, 48h in meat technology in FPU, 32h in milk and dairy technology and for one semester in a sale market. Students studying in the SAM and PMH modules are also offered EPT training possibilities.

Supervising practitioner at the internship location is required to fill in an evaluation form of the student’s performance and send it to the Student Affairs Office for review and evaluation. After acceptance of this form the student will pass the EPT training period in question. In general the EPT providers are required to have at least 5 years of experience within their field. Students are health insured during their EPT training, insurance is organised by the Establishment.

3.6.1.3. Description of the procedures (e.g. logbooks) used to ascertain the achievement of each core practical/clinical activity (pre-clinical, clinical, ambulatory clinics, EPT) and professional knowledge by each student (independently of the tracking system)

A logbook is in use during preclinical and clinical practice. Students are expected to fill in tasks and practice during their studies. Logbooks are signed by responsible academic staff. Each department has determined the minimum number of applications for the students to pass.

During internships students log cases into the logbook and supervising practitioners are expected to sign them. At the end of an internship the logbook is evaluated by Horizontal Transition and Internship Committee. Additionally, during the 8th semester EPT students fill in a form of their training activities, which will be viewed, confirmed and signed by the on-site mentor of the training. The Summer Training Evaluation committee evaluates the skills acquired during the training period.

The logbook is expected to be completed by the end of the 10th semester. The logbook system is reviewed annually by the Education Commission and revised if necessary.

3.6.2. Comments

EPT training is in place but not uniform for all students. During the first internship period students are able to choose according to their personal preferences and the second internship location depends solely on the track the students chose to follow.

3.6.3. Suggestions for improvement

None.

3.7. Decision

The Establishment is compliant with Standard 3 except for Sub-standard 3.5.

The Establishment is partially compliant with sub-standard 3.5 because of suboptimal balance between mandatory and elective topics in diagnostic imaging, equine clinical sciences and food hygiene and sub-optimal compensation for the insufficient clinical training in pigs.

4. Facilities and equipment

4.1. Findings

4.1.1. Brief description of the location and organisation of the facilities used for the veterinary curriculum

The FVMB is located in the Gorukle Campus of BUU, close to Bursa city centre. The area is served by different means of public transportation. The Establishment has different buildings: the “Main Building”, the Building A, the Anatomy Building, the Veterinary Teaching Hospital and the Veterinary Teaching Farm.

The so-called “Main building” includes different administrative offices, lecture and seminar halls and laboratories for student practices. Another building nearby (called Building A) includes thirteen Departments and some lecture and administrative rooms.

The Veterinary Teaching Farm, including a quarantine building and the Food Production Unit, and is two kilometres away from the main buildings.

The central library of the university is also close to the main buildings. A student refectory is also located near the Main Building.

Additionally, a vocational stable with approximately 12 horses is located at the premises of the VTF. These horses are privately owned but an agreement is in place with the Establishment where the stable owners allow students to weekly train propaedeutics and general examinations with the horses. University personnel also treat the horses in case of a problem or an emergency.

4.1.2. Description of the adequacy for the veterinary training of the premises for:

-) lecturing, group work and practical work

There are 13 premises for lecturing, with a total of 1,190 seats in the lecture halls. There is also a computer room for 20 persons and a reading room for 28 persons.

Regarding group work, the FVMB has an auditorium with 230 seats, and three rooms with a capacity for 20 – 46 persons.

In relation to premises for practical work, the Faculty has 5 laboratories with 80 places each, the Anatomy Practice Hall for 90 persons, and a Large Animal practice room for 20 persons.

-) housing healthy, hospitalised and isolated animals

Healthy animals are housed in the VTH and in the VTF.

The VTH includes premises for healthy animals used for teaching with a maximum capacity

for 4 horses, 6 cattle, 4 small ruminants, 6 dogs, 4 cats, and 2 exotic animals. The VTF includes premises to allocate a maximum of 8 horses, 220 cattle, 500 small ruminants, and 12 swine (currently the Team saw 3 pigs) in addition to 5,500 laying hens, 1,200 free-range laying hens, 15,000 broilers, and 2,000 quails.

In addition, the VTH allows places for the hospitalisation of 7 cattle, 6 equine, 4 small ruminants, 40 dogs, 26 cats, and 2 exotic animals. There are also isolation facilities at the hospital for 1 horse, 1 farm animal, 5 dogs and 5 cats.

-) clinical activities, diagnostic services and necropsy

Clinical facilities are located in the VTH.

The Central Service Area includes different administrative services, the Pharmacy Service/Store, and a laboratory for students.

The Emergency Unit includes two examination rooms, one of them for infectious patients, and a hospitalisation room.

The Small Animal Clinic includes 12 examination rooms focused on internal medicine (2), surgery (2), gynaecology and obstetrics (2), vaccination, exotic animals, behaviour, ophthalmology and dentistry, orthopaedics, and sterilization.

The Farm Animal Clinic includes 6 examination rooms, a surgery room, a room for student practice and a hoof trimming room.

The Equine Clinic includes 3 examination rooms, a pre-anaesthetic room, a surgery room, a room for horses with colic, a room for observation and another one for recovery.

The Diagnostic Imaging Service includes two rooms for small and large animal radiology, two rooms for ultrasound, a room for electromyography and arthroscopy, another one for endoscopy, and other for cardiology.

The Small Animal Operation Unit includes a pre-anaesthetic room, three surgery rooms, and a reanimation room.

Regarding diagnostic services, the FVBM has five laboratories: a Pathology Service with a large necropsy room, a Central Laboratory, a Coagulation Laboratory, a Microbiology Laboratory and a Parasitology Laboratory. These five labs are now integrated and opening hours, sample collection etc. are shared.

-) FSQ & VPH

The Food Processing Unit of the Establishment has different lines for production of milk, yoghurt and ayran-butter milk, kashar cheese, white cheese, and soujouk/salami. The FPU has the necessary equipment to execute these production lines.

-) study and self-learning, catering, locker rooms, accommodation for on call students and leisure

There is a central library in the campus, two student rooms, two cafeterias, a central dining hall, and 4 locker rooms with shower. There are enough lockers available for all the students. Regarding accommodation for on-call students, the Emergency clinic has a dining room and a sleeping room for students.

The University has indoor and outdoor sports facilities accessible for FVMB students.

4.1.3. Description of the adequacy for the veterinary training of the vehicles used for students transportation, ambulatory clinic, live animals and cadavers transportation

Student transportation is done with a bus for extramural activities, a shuttle bus into the campus, and 2 minibuses for ambulatory clinics. There is a frigorific truck for food transportation, 1 truck for live animal transportation and 3 tractors in the VTF.

4.1.4. Description of the adequacy for the veterinary training of the equipment used for teaching purposes and clinical services

The classrooms are equipped with media equipment and Wi-Fi coverage. Some classrooms have a digital whiteboard.

With respect to the clinical services, the Small Animal Area is equipped with X-ray equipment, electrocardiography, ultrasound and echocardiography, thromboelastography, intensive care units, endoscopy and laparoscopy equipment, electromyelography, anaesthetic work stations, defibrillator, electro-ejaculator set, and sperm freezing machine.

The Large Animals Area has equipment for endoscopy, arthroscopy, laparoscopy, electrocardiography, ultrasounds, electro-ejaculator set, and sperm freezing machine.

The Pharmacy Service has a chemotherapy administration unit and a drug dosing unit, and the Emergency Unit has an Automated Dispenser Cabinet. The Sterilization Unit uses an ultrasonic washing machine and autoclaves.

Regarding the diagnostic services, the Service of Pathology has specific equipment for pathology, serology and molecular biology, including a biological safety cabinet. The Central Laboratory includes equipment for haematology, blood and urine chemistry and serological assays.

There are three different laboratories for Microbiology, Parasitology and Virology with specific diagnostic equipment for these fields. The Pharmacology and Toxicology Department has a HPLC and a spectrophotometer.

4.1.5. Description of the adequacy of the biosecurity rules in the Establishment

There is a Biosecurity Committee responsible for the protocol development, including prevention of teaching-associated risks. Biosecurity procedures are posted and illustrated with pictograms in very few teaching facilities including a few laboratories. Biological and chemical waste are collected and removed by a private company.

4.1.6. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of facilities, equipment and biosecurity rules of the Establishment

Proposals for acquiring new equipment are initiated by the Departments and subsequently transmitted to the Dean's Office. The Dean's Office can use the budget of the Faculty, if available. When funds are not enough to support the proposal, an official request is made by the Dean's Office to the University. Regarding facilities, funds for maintenance, renewal and construction of new facilities are usually made by the Dean's Office to the University. The revolving budget of the Faculty is also available for this purpose.

4.2. Comments

Some facilities, such as the Anatomy Practice Hall and the Large Animal practice room, are not adapted to be accessible for wheelchairs. Funding should be made available to make all Faculty facilities accessible for wheelchairs.

Vehicles are not available for transportation of cadavers or sick animals.

The five laboratories available for practical work have a large capacity (80 students); no small laboratories for teaching are available in the Establishment. Many practical activities in laboratories are given to large groups (around 50 students) by one or two members of the academic staff. It is suggested an optimisation of large laboratories in order to reduce the ratio academic staff/student, to personalise the teaching received and to improve the hands-on practical training of the students.

Cadavers are stored in formalin solution pools in the Anatomy dissection unit, and formalin controls are not available. A new Anatomy building is expected to be built to replace the current

one.

Biosecurity rules are not clearly defined within the Establishment. Biosecurity procedures are not displayed in different laboratories where students receive practical training. E.g. there was no floor marking to separate the different areas (public access, restricted access and access with special clothing/equipment) in the surgery section. People freely circulated. During the Visitation it was obvious that hand sanitisers (alcohol) were sparsely used. There was 1 applicator visible at the equine hospital and 1 at the new meat processing unit. Most laboratories, animal housing premises, examination rooms, isolation areas and most other premises had adequate hand washing possibilities with soap.

Students are expected to acquire their own protective clothing (e.g. white coats, rubber boots etc.) and have more than one piece in their inventory. However, during the Visitations it was evident that students were also walking in the hallway, going to the practice activity by car and having a break in the outdoor cafeteria whilst wearing the protective coats after and before practical work.

Isolation facilities, especially the unit for large animals, are separate, but not properly ventilated and isolated, allowing the outflow of fluids. Hand washing facilities and a changing room are not available in the unit for cattle. Facilities for poultry were overstocked according to EU standards. Some facilities for cattle at the Veterinary Teaching Farm and some kennels were not clean and tidy. In the cattle facility, the ground was soaked with urine and faeces, there was no straw for bedding, and the Team noted some cows with laminitis.

4.3 Suggestions for improvement

Design of the isolation facilities should secure the containment of potential pathogens from isolated animals.

Facilities should be compliant with welfare, safety and biosecurity standards and should be designed to promote best husbandry, welfare and management practices.

4.4. Decision

The Establishment is compliant with Standard 4 except for Sub-standards 4.7, 4.12 and 4.13

- The Establishment is not compliant with Sub-standard 4.7 because of suboptimal promotion of welfare and management practices in livestock facilities.
- The Establishment is not compliant with Sub-standard 4.12 and 4.13 because of inadequate teaching and display of biosecurity rules for students, staff and visitors and because of inappropriate isolation facilities for large animals.

5. Animal resources and teaching material of animal origin

5.1. Findings

5.1.1. Brief description of the global strategy of the Establishment about the use of animals and material of animal origin for the acquisition by each student of Day One Competences

Animals are mainly provided by the Veterinary Teaching Hospital (VTH) services and Veterinary Teaching and Research Farm (VTF). Additionally there is a vocational school at the VTF premises with 13 horses that are used in the basic clinical teaching (general examination and some clinical cases) and owned by a private organisation.

The Establishment offers 24/7 emergency service in the VTH, which provides the students with a sufficient number of small animal clinical cases.

Collaborations with public shelter facilities like Osmangazi and Yıldırım Municipalities, agreements with private clinics, veterinary hospitals, farms and slaughterhouses for the

“Summer Internship”, supports the opportunity for the acquisition by each student of Day One Competences.

Animal mannequins and laminated models of different species are also available to complete the training in Anatomy.

5.1.2. Description of the adequacy for the veterinary training of the enrolled students of:

-) the number and diversity of cadavers and material of animal origin used in anatomy, necropsy and FSQ;

Anatomy only uses fixed material (cadavers and material of animal origin).

Cadavers of dogs and cats for training in pathology and FSQ pathology are obtained from the VTH, private veterinary clinics and clients. Large animals (ruminant) cadavers are mainly provided by VTF and private owners.

Other types of teaching material of animal origin are acquired from the VTH, local slaughterhouses (cattle, sheep) and private veterinarians.

The mean number of horse (2) and pig (<1) cadavers in the last 3 years is low (see table 5.1.6).

-) the number and diversity of healthy live animals used for pre-clinical training;

The number and diversity of healthy, live animals used for pre-clinical training reported in table 5.1.2 only refers to those present at the VTH and does not consider the VTF, which is actually an underestimation of the number of animals available for teaching.

-) the number of visits in herds/flocks/units of food-producing animals;

The number of visits in ruminant and poultry farm is adequate. Visits to equine facilities and pig farms are not reported.

-) the number and diversity of patients examined/treated by each student;

There is a good and active involvement of students at both the VTH and the VTF.

The number of examined horses and pigs is under the minimum value (see table 5.1.3 and 5.1.4 and related indicators).

-) the balance between species, between clinical disciplines, between first opinion and referral cases, between acute and chronic cases, between consultations and hospitalisations, between individual medicine and population medicine

The VTH and the VTF, offer a wide range and balance of different activities for the acquisition of hands-on training in clinical disciplines.

A high percentage of the horses (100%) and pets (90%) used for clinical training are first-opinion patients. Only 10% of ruminants were first opinion cases. Stray dogs and stray cats represent about 25% of the cases.

There is a good balance between clinical disciplines.

5.1.3. Description of the organisation and management of the VTH and ambulatory clinics

The VTH comprises 4 areas (Small and exotic animals, Large Animals, General Services and Emergency services) with different services (Internal Medicine, Surgery, Obstetrics & Gynecology, Reproduction and Andrology, Hospitalisation and Intensive Care, Anaesthesia, Diagnostic Imaging, Pathology (necropsy), Clinical Pathology Lab, Microbiology, Virology and Parasitology Emergency Clinic)

Opening hours: 8:30-17:00 from Monday to Friday. A 24/7 service is running at the VTH for both small and large animals and equine.

The ambulatory clinics is an on-call service. During the fourth year students participate in at least 4 scheduled farm visits. Student in FAMH participate in at least 11 scheduled activities.

5.1.4. Description of the group size for the different types of clinical training and of the hands-on involvement of students in clinical procedures in the different species

Group size for compulsory clinical courses (7th – 9th semester) is related to the number of students registered per year and range from 14 to 30. Students are subdivided in smaller groups depending on activity and availability of patients.

Mean distribution among elective modules in the 10th semester is reported in chapter 5.1.6.

Group size ranges from 6 to 44 students depending on the subject and module.

Students' activities in clinical sciences are mainly based on observation during the first four years. Hands-on involvement of students is mainly concentrated in the fifth year (see elective modules).

5.1.5. Description of the patient record system and how it is used to efficiently support the teaching, research, and service programmes of the Establishment

Two patient recording software systems are used in the VTH: E-VET and AGENA (during Emergency night shifts). For legal and administrative purposes patients are also recorded in a hardcopy examination record book.

5.1.6. Description of the procedures developed to ensure the welfare of animals used for educational and research activities

The academic staff guarantee animal welfare and supervise the students in all steps of clinical examinations. Animal owners must sign a specific consent form to confirm that they understand the preclinical and clinical activities performed on patients.

5.1.7. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the number and variety of animals and material of animal origin for pre-clinical and clinical training, and the clinical services provided by the Establishment

The teachers involved in preclinical and clinical training are in charge of identifying the needs for animals and material of animal origin to achieve the goals of the syllabus. The Dean's office compensates material shortcomings either by purchasing from local suppliers or from the VTF. Clinical cases in the VTH are used for student practice. Cadavers and materials of animal origin are obtained from the VTH, the VTF, client submissions and Bursa Zoo.

5.2. Comments

The Establishment has its own VTF located very closely to the main buildings which is easily accessible for the students (a shuttle service is also provided).

Even though the VTF houses 176 dairy cows, only 8 of them are used mainly for preclinical exercises and housed in the VTH. Students practice hands on clinical cases with animals housed in the VTF. The VTH also houses 1 horse owned by the Establishment. Additionally a vocational school located within the campus and close to the VTF houses 12 horses (privately owned) which are used regularly for preclinical and if relevant also for clinical activities.

The presence in the VTF of 176 dairy cows (71 milking), 68 sheep, 110 goats, 5280 hens, 5000 broilers, 13 horses and 3 pigs, and the caseload of VTH, guarantees the number and diversity of healthy live animals used for pre-clinical activities. The low number of cattle currently used for preclinical activities (8 cows) in relation to the high number of students can potentially cause welfare problems, but the use of these animals is followed and recorded to prohibit abuse.

Agreements with TJK and Mennan Pasinli Vocational School (a unit of University of Bursa

with the aim of training specialists in horse-breeding and horse-training) has increased the amount of extramural practice for students. However, students only observed the activities of practitioners. Direct hands-on training is not allowed.

The number of clinical cases offering hands on training for students in horses as well as the number of equine cadavers for pathology is insufficient. The Islamic religion prohibits consumption of pork, and there are no pig farms in the region and this also prevents the supply of pathological cases.

5.3. Suggestions for improvement

The pre-clinical activities of core courses should be further implemented at the Veterinary Teaching Farm and animals present in the VTF more extensively used for teaching purposes. The number of agreements with practitioners, private clinics and private or public organisations should be elaborated to increase the number of equine for both Animal Production and clinical hands-on activities.

The number of pigs in the VTF should be increased or a relevant e-learning course and the use of phantom animals and mannequins introduced to give students basic knowledge about this species.

5.4. Decision

The Establishment is compliant with Standard 5 except for Sub-standard 5.1, 5.2 and 5.3.

- The Establishment is partially compliant with sub-standard 5.1, because the number of pigs and diseased equine is low.
- The Establishment is not compliant with Substandard 5.2, because the students' clinical educational experience and hands-on training in equine is not sufficient.
- The Establishment is partially compliant with Substandard 5.3, because EU Regulations about GMP/GHP and HACCP rules (EU Reg 852/2004 and 853/2004) are not fully observed in the external slaughterhouse, so that it provides a suboptimal environment for students' visits.

6. Learning resources

6.1 Finding

6.1.1. Brief description of the main library (facilities, equipment, staff, (e)books and (e)periodicals, software for databases)

Students have free and easy access to the BUU main library (3 minutes walk from the Faculty). This building is impressive in size as much as in infrastructure, equipment and opening hours (8:00 – 24:00 most of the time). Moreover, a large extension is recently finished and about to open, adding several useful facilities for students and a total of 1,000 new seats.

Due to its multidisciplinary nature, this library is big, with 4 floors, 6 halls and 57 full-time staff. The number of electronic journals is high, covering each kind of veterinary and one health subjects, and are provided in both Turkish and foreign (mostly English) languages. The opening hours are extensive making it easy for students to get access to all types of scientific and textbook information.

In addition, there is a reading room within the FVMB (20 seats) and a computer room (21 computers).

6.1.2. Description of the available electronic information and e-learning courses, and their

role in supporting student learning and teaching in the core curriculum

The university is fully-WiFi covered and the team found Eduroam available and functional in all visited areas of the FVMB. The homemade UKEY e-learning platform allows both synchronous and asynchronous teaching and learning activities and its graphic charter is modern, leading to an environment that is conducive to working. At an individual basis, some students only complain on the slow internet connection in their university dormitory rooms, but not in the common areas.

6.1.3. Description of the accessibility for staff and students to electronic learning resources both on and off campus

The university's intranet and the UKEY e-learning are easily accessible from both on-site and off-campus locations. The medical recording system is for internal use only.

In comparison with the general library, the number of seats that are available for students within the FVMB, for studying alone or in small groups, is quite low.

6.1.4. Description of how the procedures for access to and use of learning resources are taught to students.

During the first week of their curriculum devoted to orientation, welfare, accommodation etc. students receive information about access and use of the library and all available electronic resources. Trainings are repeated on the beginning of each academic year.

6.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of learning resources

The central library has a close connection with the academic staff and students. Both can apply for the purchase of printed books, electronic books and journals that are not in the library archive. There is a specific request form available at the Library Advisory Unit. The relevant unit of the library informs the academic staff about the results of their requests through e-mails.

6.2. Comments

The library, the IT resources and the UKEY platform are really commendable, providing an excellent support for learning and training.

6.3. Suggestions for improvement

In addition to the extension of the general library, the team supports the Faculty's suggestion to increase the number of seats within the Faculty rooms devoted to self/group studying.

6.4. Decision

The Establishment is compliant with Standard 6.

7. Student admission, progression and welfare

7.1. Finding

7.1.1. Brief description of the admission procedures for standard and for full-fee students

The Turkish government institution HEC (Higher Education Council) sets out the guidelines for admission criteria and procedures. A student's admission to higher education is defined by a combination of grades obtained in high school, combined with the score on the Higher Education Institutions Examination that is carried out in two parts, the Basic Qualification exam and the Field Qualification exam. The Higher Education Institutions Examination is carried out by the Evaluation, Selection and Placement Center (OSYM). An appeal procedure

is in place and is handled by OSYM.

Although the questions of the Higher Education Institutions Examination are same for all students, different coefficients are applied for different disciplines. In veterinary medicine, the coefficients of mathematics and science questions are higher in comparison to questions referring to social sciences.

In Turkey, all higher education courses are free of charge for Turkish citizens, for the normal duration of the course. Those who need a longer study period pay a small tuition fee (386 TL or approximately € 61,00/year) for the supplementary years of study.

International students pay 1,158 TL or approximately € 183 per year. In addition they can have a one-year free Turkish language education (compulsory before study start because teaching is done in Turkish).

Students with dual nationality do not have to pay the annual fee.

Tuition fees are made available to the University.

Scholarships, by scholarship examinations, are awarded by the government to waive accommodation costs for university dormitories.

7.1.2. Description of how the Establishment adapts the number of admitted students to the available educational resources and the biosecurity and welfare requirements

The faculty communicates the student capacity of laboratories and classrooms to HEC which makes the final decision on the amount of students the faculty has to accept. For the next three academic years this number will be 129. In addition to this number several students are added e.g. students:

- from the Foreign Student Examination (51 for 2018-2019),
- receiving a scholarship from the Turkish Government (3 for 2018-2019)
- coming from other establishments or other studies (16 for 2018-2019)
- transferred by the HEC Central interdisciplinary student transfer (9 for 2018-2019)
- and from Student Amnesty (students who had to interrupt study for personal reasons and will continue) (4 for 2018-2019)

7.1.3. Description of the progression criteria and procedures, the available remediation and supports, the rate and main causes of attrition

Before they can start studying the five-year veterinary medicine course, students have to pass a compulsory English preparatory class.

The programme of veterinary medicine has a full ECTS structure and lasts 10 semesters. A student has to take 30 ECTS per semester. In total 300 ECTS have to be earned in order to pass the whole programme.

In general, to pass a course, a mid-term examination, to the value of 30% of the total of the points, a final examination, for 60%, and an additional one or two quizzes, for the remaining 10%, are to be fulfilled.

To this date, no restrictions are made in the number of times that students can take and retake an exam.

For remediation purposes, for certain courses, laboratories are open at specific hours to help students make up for deficiencies. During the office hours, upon the request of the students, the relevant laboratory is opened so that students can practice. The practice that the student wants to do is repeated for the student by the academic staff in the relevant department.

Course material is available on the electronic learning platform UKEY.

Each academic staff member is assigned a number of students for which they act as mentor for academic support. If students encounter study related problems they can go to either their mentor or the Student Affairs Office.

Complaints, comments and suggestions about all aspects of the veterinary course can be

addressed to either the Faculty Administrative Office or the Presidential Communication Centre. Students can also convey their suggestions and grievances by a 'suggestions-grievances and complaint box' just outside the Student Affairs Office. Within 15 days, students will be informed about the result. Students can also meet with the advisors/mentors and can express their wishes through student representatives and surveys.

Attrition is mainly caused by students who choose another faculty (e.g. Engineering, Science & Arts), or students who do not pass the English preparatory class for 2 consecutive years. These can eventually continue to study in a veterinary school with lower OSYM-entrance scores.

The OSYM-entrance scores are determined based on the score of the last candidate who preferred that faculty in the previous year.

7.1.4. Brief description of the services available for students

Student services are under coordination of either the vice president of the university or the Vice Dean of the faculty.

Students register at university level from where the records of the veterinary students are transferred to the Student Affairs Office of the faculty, using the Student Automation System. Students manage their curriculum online.

The Student Affairs Office of the faculty and/or the Vice Dean are the first point of contact for the students.

Upon enrolment, every student gets appointed a mentor (see 7.1.3 for details).

The university offers seminars on various subjects. Health, dentistry, and counselling services are available free of charge.

Provisions for meal (lunch & dinner) are available at the Central Dining Hall of the university on campus.

Students can join one or more of the many student clubs. One of these unions organises an active student social calendar and extra veterinary practical and lecture congresses. These are well attended and enjoyed by students.

The students have an IVSA section; the Association of Bursa Uludag University Veterinary Faculty (ULUVET), and the Association of Young Veterinarians (GVH).

Two international students exchange programmes are in operation; Erasmus & Mevlana (Different from other exchange programmes, Mevlana Exchange Programme includes all higher education institutions in the world regardless of their region).

A personal health insurance for students is provided by the university. However, no civil liability coverage is provided. The Establishment clarifies that there has been never a need for this. Practitioners declared that there had been a few cases where students had had a negative influence on private clinics' equipment but that these problems have been solved by the clinics' owners without involving the FVMB.

The accommodation is good and reasonably priced, but the Wi-Fi is poor, especially in the government-owned rooms.

7.1.5. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the admission procedures, the admission criteria, the number of admitted students and the services to students

The HEC sets out the guidelines for admission criteria and procedures.

All processes and procedures related to the different elements of the veterinary course, such as updating the lecture contents, implementing new units of study, drawing up the academic calendar, planning of the weekly lectures, planning of the examinations and planning of

workplace training and internships, are handled by the Student Affairs Office in accordance with a flowchart defined in the BUU QA system.

7.2. Comments

Admission & selection criteria are set out by HEC, which also decides on the number of students admitted to FVMB which in turn communicates the achievable capacity of the number of students, considering the capacity of the physical facilities (classrooms, laboratories, hospital facilities) in the Faculty Council to HEC.

With regard to the admitted number of students, a further increase must be avoided in order not to jeopardise the indicators I1, I2 & I3 and also the number of healthy animals which are now still in range. A decrease in the number of students would be beneficial to the faculty.

Activities on advertisement on faculty and educational programme are carried out by the university during the common advertising days and on site. Prospective students can find more information on the faculty's website.

The SER for this Visitation is available on the website (<http://www.uludag.edu.tr/veteriner>).

Progression criteria are clearly defined and prepared for the purpose of practicing veterinary medicine.

The selection process is solely determined by HEC. Faculties have no say in this with the exception of giving suggestions about the learning capacity of the Establishment.

A policy for disabled students is established and resides under the Health, Culture and Sport Directorate of the BUU.

To this date, there are no restrictions on the number of times that students can take and retake an exam.

Remediation measures for students that do not perform well are passive. Students can come to the teacher himself, to the mentor that was assigned to them or can ask the Student Affairs Office. Students are generally happy with the course and the university. They feel well supported.

To date, no students were ever excluded from the DVM-programme.

Provisions to support the physical, emotional and welfare needs of students are a combined effort of University and faculty actions.

Students can convey their needs or grievances to the faculty through the Faculty Administrative Office or the Presidential Communication Center.

The student welfare initiatives, such as the socio-medical services and the Student Affairs Office are to be commended.

7.3. Suggestions for improvement

The number of students should remain on the actual level not to jeopardise the indicators I1, I2 & I3 or be reduced.

7.4. Decision

The Establishment is compliant with Standard 7.

8. Student assessment

8.1. Findings

8.1.1. Brief description of the student's assessment strategy of the Establishment

Students have to attend 70% of the theoretical courses and 80% of the practical courses. Attendance is controlled by the attendance check in the lessons. Students who are unable to attend are notified of student affairs at the end of the year. Student assessment follows minimum assessment standards, set by the University Senate, taking into consideration the

recommendations of the Educational Committee of the faculty.

The examination schedule is discussed and decided by the Education Commission (Vice Dean in collaboration with the student representatives) and the Faculty Board, after which it is announced to the students at least 1 week before the exam (see also 7.1.5).

A relative evaluation system is used except if the number of students is below 20. Then an absolute evaluation system is used.

A variety of evaluation methods is used to assess students. General assessment of courses consists of a mid-term exam and a final exam supplemented with one or more quizzes. Mid-semester activities count for 30% (in case quizzes are organised which count for 10%) or 40% of the final grade. The final exam counts for 60%.

Several kinds of evaluation systems are used depending on the subject. Mostly, evaluations combine continuing assessment, evaluation of supervised work, written examinations and evaluation of practical skills.

Theoretical courses are usually assessed using written exams. Written exams are taken in the form of multiple-choice tests, short- or long-answered questions, essay, case presentation and matching type questions, continuing assessment and evaluation of supervised work.

Pre-clinical practical and clinical practical skills are evaluated and monitored using a logbook. During clinical practices in the VTH 30% of the final exam score is determined by the logbook, the other 70% by an oral exam. (cfr. SER 3.1.9)

The grading system is a combined numerical & letter system. Assigned degrees are as follows: Failing Grade: 0-54.9, Passing Grade: 55-100; Grade AA: 85-100; Grade BA: 80-84, BB: 75-79, CB: 70-74, CC: 60-69, DC: 58-59, DD: 55-57, FF: ≤54.

Students are of the opinion that examinations are fair and relevant to the course. None of the students the Team spoke with had any problems with the assessment procedure.

8.1.2. Description of the assessment methodology to ensure that every graduate has achieved the minimum level of competence, as prescribed in the ESEVT Day One Competences

Twelve key learning outcomes are defined for the veterinary course. Every unit of study defines its own learning outcomes. The contribution of the learning outcomes of the units of study to the general course competences are matched with a one to five grading scale, indicating the contribution level from 1 (very low) to 5 (very high).

Although 12 key competences are defined, the link with all of the 48 ESEVT Day One Competences is not always clear.

8.1.3. Description of the processes for providing to students a feedback post-assessment and a guidance for requested improvement

Exams are considered to play an important role in monitoring the students' development in knowledge and competences.

Most of the teachers will integrate feedback sessions during their course hours shortly after an exam. The teacher will go over the questions and discuss the answering possibilities. The students can review their exam copy together with the teacher.

An appeal procedure for material errors is in place.

8.1.4. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the student's assessment strategy

The quality of learning is assessed using student surveys, evaluation of success levels of courses (units of study) and views of graduates and stakeholders. (See additional remarks in chapter 11).

8.2. Comments

Although 12 key competences are defined, the link with all of the 48 ESEVT Day One Competences is not always clear for several of the ESEVT Day-One-Competences (DOC's). In addition there are some doubts about all students being able to perform basic clinical skills, especially in equine, and from that the entry level competence of every student.

Assessment tasks and grading criteria are well defined for each unit of study. Students are informed on time about the assessment.

The grading system for students is clear although some questions can be asked about the usefulness of the relative evaluation system.

In the relative evaluation system, the grading process for each student is done by taking the average achievement level and standard deviation value criteria of the students in the classroom. Therefore, the success or failure of a particular student is directly related to the success levels of other students in the class, as opposed to absolute evaluation. In other words, in this assessment approach, the grade given to each student depends on how much above or below it is in relation to the average achievement level of the class.

A student's learning outcome can never depend on learning outcomes of peers!

The ways to appeal against assessment outcomes are clear.

The use of the logbooks is not always clear. Students have to register every course related procedure they perform. So they have to take the logbook wherever they go. Sampling of the logbooks did not reflect this way of working. Although the logbook keeps track of the quantity of clinical procedures students carry out, it does not give any appreciation about the quality of the clinical work that has been done.

To this date the student evaluation strategies are determined by the departments themselves according to the evaluation criteria of the students that are stated in the regulations and exam application principles prepared by the Education and Teaching Commission and the Faculty Council. Although the university QA commission is looking into student surveys and success levels of courses and views of graduates and stakeholders, the system of changing assessment strategies based on this is not yet in use. The assessment strategies used to certify the achievement of the learning objectives of the individual units of study are indicated in the course sheets of the study guide.

Timely feedback on assessment is provided together with the feedback as described in 8.1.3.

The methodology of formative and summative assessment is valid and reliable for the more theoretical courses. A variety of assessment methods is used.

Although logbooks are in use to assess clinical skills, they are not complete and do not ensure the achievement of the DOC's by each individual student.

8.3. Suggestions for improvement

The partial compliances with Substandards 8.5, 8.6 & 8.9 are related and must be considered as one partial compliance. Assessment of learning outcomes should be visualised. Although all external stakeholders (farm manager, government veterinarians and private practitioners) are very enthusiastic about the quality of the students they receive, an official system should be in place, to assess the learning outcomes, taking into consideration the recommendations of the external stakeholders.

The key learning competences should be elaborated in a way that all ESEVT DOC's are covered (see also section 8.1.2).

8.4. Decision

The Establishment is compliant with Standard 8 except for Sub-standards 8.5, 8.6 and 8.9.

- The Establishment is partially compliant with Substandards 8.5, 8.6 & 8.9 because of suboptimal assessment of learning outcomes.

9. Academic and support staff

9.1. Findings

9.1.1. Brief description of the global strategy in order to ensure that all requested competences for the veterinary programme are covered for both academic and support and that they are properly qualified and prepared for their roles

The competences of the teaching staff are defined in the “Academic Promotion and Appointment Criteria” of the University and include publication of articles, participation in research projects, patents, book authorship, participation in congresses, etc.

Criteria for selection of new positions or promotion are approved by the University Senate. In recent years, academic staff receives an increase of the salary based on a system depending on the achievements.

Teaching is distributed among teachers depending on their research expertise.

Support staff is assigned to the different Departments according to the training.

9.1.2. Description of the adequacy of the number of academic and support staff in the different departments/units with the number of students to be taught

The mean of academic staff during the last three years is 106, 84 being permanent and 22 temporary. 96% of them are veterinarians.

The current distribution of academic staff among Departments is:

- Department of Anatomy: 8
- Department of Physiology: 5
- Department of Biochemistry: 6
- Department of Histology and Embryology: 6
- Department of Veterinary History and Deontology: 1
- Department of Microbiology: 6
- Department of Virology: 3
- Department of Pathology: 6
- Department of Parasitology: 7
- Department of Pharmacology and Toxicology: 3
- Department of Aquatic Animals: 3
- Department of Internal Medicine: 12
- Department of Surgery: 7
- Department of Obstetrics and Gynaecology: 8
- Department of Reproduction and Artificial Insemination: 7
- Department of Zootechnics: 9
- Department of Genetic: 4
- Department of Biostatistics: 1
- Department of Animal Health Economics and Management: 1
- Department of Animal Nutrition and Nutritional Diseases: 8
- Department of Food Hygiene and Technology: 7

The FVMB has 85 members of support staff and 145 members of research staff, including mostly pre-doctoral students.

9.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the strategy for allocating, recruiting, promoting, supporting and assessing academic and support staff

The University Department of Personnel is in charge of affairs related to academic and support staff. Allocation and recruitment of academic staff depends on the HEC legislation (law number 2457 and related regulations).

The Faculty requests the recruitment and promotion of academic staff to the University, based on

the needs of the Departments. Similarly, the Faculty reports to the Rectorate the needs of support staff. In this case, staff from other areas of the university can be reassigned to the FVMB, when possible. Otherwise, the University evaluates the possibility of funding through the Ministry of Treasury and Finance. Recruitment offers are published on the website, official bulletins and newspapers.

9.2. Comments

The commitment of academic staff to teaching activities is commendable.

The commitment to training of the staff is commendable.

The support of the physical, emotional and welfare needs of the staff by the Establishment is commendable.

Promotion criteria for academic staff are mainly based on research achievements. Insufficient funding of research can be an obstacle for the promotion of Professors. Other achievements, such as teaching or management, should be evaluated for the academic staff promotion.

The number of support staff is scarce in specific areas. An appropriate distribution of well-trained support staff according to the needs of the Establishment is desirable.

Students do not have a tool to evaluate the academic staff individually, so Professors do not receive feedback from the students.

9.3. Suggestions for improvement

None.

9.4. Decision

The Establishment is compliant with Standard 9.

10. Research programmes, continuing and postgraduate education

10.1. Findings

10.1.1. Brief description of how the research activities of the Establishment and the implication of most academic staff in it contribute to research-based undergraduate veterinary education

Each semester students participate in supervised work course, which is 1-2 hours per week for the semesters 1 - 9. During these course hours, students are exposed to high level knowledge and participate in research activities in the departmental laboratories. Students in their final years prepare and present a graduation thesis, which can be conducted either as an experimental research or a literature study (critical review). This approach helps students acquire skills needed to acquire scientific knowledge. There is also an elective course - Basic Principles of Scientific Research and Publication in 5th semester, preparing students for scientific research.

10.1.2. Description of how the postgraduate clinical trainings of the Establishment contribute positively to undergraduate veterinary education and how potential conflicts in relation to case management between post- and undergraduate students are avoided

The FVMB has 28 lecturers with a high level of scientific and educational experience in 4 clinical departments. All of the lecturers are responsible for clinical training both for under- and post-graduate students.

The students have clinical practical classes in groups and each group follows the clinical training in clinics of internal medicine, surgery and obstetrics & gynaecology. Each group goes to all of the clinics, based on a pre-defined program. There are supervising lecturers (Professors) responsible for clinical training of undergraduate students at each clinic. There are also research assistants and postgraduate students at the clinics for daily health and emergency services. Postgraduate students are supervised by their own PhD supervisor and the head of the

clinic. The under- and postgraduate students are trained in the same clinical environment.

10.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of research, continuing and postgraduate education programmes organised by the Establishment

Postgraduate programs are conducted in FVMB's departments under organization of Institute for Health Sciences, one of the institutes operating under the Postgraduate School of the University. Currently, there are 17 PhD programs and 9 Master of Science programs enrolling students for postgraduate studies. These programs accept students twice a year (fall and spring semesters); announcements are made according to common rules defined by HEC and the University Senate.

Continuing education (life-long education) is one of the major priorities of the Establishment and there are relevant connections with public organizations (i.e. veterinary chambers, union for animal producers, food hygienists, scientific communities etc.) related to the veterinary community.

According to necessity analysis, continuing education programs can be organized by the faculty management and departments. Principally, the main lecturers are from the Faculty, but some specialists from other institutions can also be involved.

Academicians at the Establishment participate actively in scientific studies. There are 47 research projects (13 external, 34 internal) initiated in the last 3 years and 283 publications in journals in the same period.

10.2. Comments

The Establishment provides PhD studies, training and courses in many areas related to Veterinary Medicine but specialisation at the level of e.g. EBVS is not in place at the FVMB. There are no European diplomates among the teaching staff at the University.

10.3. Suggestions for improvement

None.

10.4. Decision

The Establishment is compliant with Standard 10.

11. Outcome Assessment and Quality Assurance

11.1. Findings

11.1.1. Description of the global strategy of the Establishment for outcome assessment and Quality Assurance (QA), in order to demonstrate that the Establishment:

-) has a culture of QA and continued enhancement of quality;

In Turkey, the Higher Education Quality Council (THEQC) was founded in 2015 and is currently an affiliated member of ENQA. It is the most important quality assurance body for higher education with the assignment of evaluating the quality levels of higher education institutions' education and research activities and administrative services in accordance with the national and international quality standards. The THEQC coordinates the processes of accreditation, internal and external quality assurance, and authorizes independent external evaluation organizations.

The BUU QA Coordination Office, established in August 2017, sets the outlines in which the faculty QA Committee works.

On faculty level a QA Committee has only been recently installed (September 2019) and is not yet optimally functional.

Till now, all QA processes are initiated by the university QA coordination office and are based on the ISO9001:2015. The university will apply for ISO9001:2015-certification in September 2020.

The Faculty (FVMB) was accredited by the National Accreditation Institution (VEDEK) in 2015 for 2 years. In 2017 a revisit followed that was rewarded with an accreditation status (valid for 7 years).

-) operates ad hoc, cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms;

The faculty QA-committee has been only recently installed. It is composed of representatives of academic staff, administrative staff, students and a BUU QA coordinator (as an advisor). It is currently in the process of adopting the university's ISO9001:2015 standards at faculty level. The goal of the faculty QA committee is to achieve an integral quality culture through continuous improvement for which new projects and activities are carried out.

Feedback on the quality of the VTH is collected by questionnaires filled in by animal owners, who can also file complaints through a complaint box or send an email to the Dean's office. This system guarantees quick responses in taking necessary measures for improvement.

At the end of each semester the university QA Coordination Office organizes a survey to assess the level of satisfaction and collects opinions of employees for possible further development.

-) collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities (teaching, research, services);

At the end of every semester, the Education & Teaching Committee (E&TC) reviews and improves the curriculum based on the evaluation of student's success rates and suggestions of students and faculty members as described in sections 3.1.1.3 & 3.1.1.5.

Feedback of outcome assessment of students is obtained by meetings in the Alumni & Employer Advisory Committee. Communication between students and alumni is facilitated by an online portal.

-) informs regularly staff, students and stakeholders and involves them in the QA processes;

Given the fact that the quality model ISO9001:2015 has only recently been implemented at university level, and since the faculty QA committee was only established in September of last year and is still in full development, the flow of information on QA processes is rather minimal at the moment. Taken into consideration the intention of the faculty for adopting a strong quality assurance system, it is certainly to be expected that this situation will evolve rapidly in a positive manner in the coming months.

-) closes the loop of the QA Plan-Do-Check-Act (PDCA) cycle;

Although a clear PDCA-cycle is present for the adaptation of the curriculum, more work needs to be done on elaborating and making more visible the PDCA cycles of the different QA processes.

-) is compliant with ESG Standards;

Although not completely achieved, the faculty is in the process of installing the ISO9000:2015 QA model and is working on integrating the ESG-standards. Further comments on this are described in section 11.2.

11.1.2. Brief description of the specific QA processes for each ESEVT Standard

(1)- The faculty has a clear strategic plan, commanded by national legislation, with SWOT analysis, a list of objectives with a clear Plan, Do and Act component. The indicators for the Check component could be more elaborate. University Strategic Plan objectives are monitored annually by the QA Commission and other respective commissions. A variety of commissions and committees assist the Faculty Council. Only one student is represented in the commissions and committees. Input from external stakeholders is assured by the Alumni & Employer Advisory Committee.

(2)- As a state university BUU receives most of its income from state (Republic of Turkey Ministry of Treasury and Finance) allocations. The budget proposal is estimated yearly by the Strategy Development Unit of the university.

(3)- Elements of student surveys, organised twice a year, combined with suggestions from internal and external stakeholders lead to proposition of changes in the curriculum. These changes are discussed and finally recommended by the E&TC. Finally they are submitted for approval by the Faculty Council after which they are published in the Education and Teaching Guide which is updated annually. (This is the only example of a fully closed PDCA-cycle). Information of the organization, mission and vision of the faculty, commissions and committees, curriculum contents, content of lectures and student examination and evaluation principles are published in the FVMB Education Manual and online, which is partly available in English (<http://bilgipaketi.uludag.edu.tr/Programlar/DetayENG/76?AyID=25>). The EPT management can be improved.

(4)- For acquisition of new equipment for research, project budgets are used. For educational purposes, faculty budget is used and if faculty budget will be insufficient, a request can be made to the Rectorate. Facilities are maintained and upgraded by the Construction Department of the university for which official procedures exist.

(5)- The faculty has its own hospital (VTH) and farm (VTF). Also on-site visits are undertaken for supplementary necropsies and practical training on aquatic animals. For clinical training, students are involved in the daily routine of the VTH, including the emergency service (during the last 2 years). The VTF has a beef & dairy cattle unit, a sheep & goat unit, a poultry unit and a food production unit. Several clinical departments have regular visits to the VTF in the context of clinical training of students. In all of the VTF units students can work part-time and voluntarily. Use of formalin to fixate animal cadavers for educational use should be avoided due to exposition of students to cancerogenous formaline and the availability of several alternatives.

Although there is an abundance of stray dogs, the use of fresh dog cadavers for the education in anatomy is far below what is seen elsewhere.

With a poultry farm available, more chicken could be used in the microbiology practicals in order to give all students the possibility to perform a necropsy. These necropsies have to be performed in a dedicated biosecure necropsy room with all the necessary biosafety procedures in place.

(6)- The university features a central library that is easily accessible for veterinary students. The library provides a variety of online and hard copy books and papers supplemented with an Inter Library Loan (ILL) service. Opening hours are ample. Students can use one of the 33 PCs or their own laptops. Wi-Fi infrastructure is provided (Eduroam) on the whole campus. An electronic learning platform, UKEY, is until now only used for uploading teaching material, despite the fact that the full scope of the programme is much wider (virtual meeting rooms, conduct quizzes, research projects of academics etc.). Students can apply for the purchase of publications which is decided by the Central Library Collection Development Team. An annex building to the central library, which will be used as reading room, is currently under construction.

(7)- The HEC (Higher Education Council) sets out the guidelines for admission criteria and procedures. Students are required to take a central exam conducted by OSYM in order to be able to enrol for a degree program. Higher education in Turkey is free of charge for Turkish citizens. HEC decides on the number of students on indication of the FVMB. The student affairs office of the faculty and/or the Vice Dean are the first point of contact for the students. Upon enrolment, every student gets a mentor.

A further increase in the number of students is to be avoided.

(8)- Students have to attend 70% of the theoretical courses and 80% of the practical courses. A variety of evaluation methods is used to assess students. The students can review their exam papers after announcement of the results. An appeal procedure for material errors is in place. The quality of learning is assessed using student surveys, evaluation of success levels of courses (units of study) and views of graduates and stakeholders. Student surveys have to be adapted for use to full extent in an educational environment. (See section 11.2)

The key learning competences should be elaborated in a way that all ESEVT DOC's are covered.

(9)- Procedures for appointing, evaluating, supporting and monitoring academic staff are in place. Appointments as a teacher are currently based mostly on candidates' research achievements. Educational knowledge and skills are not assessed in this process. Every PhD student has a mandatory course on teaching skills to prepare them for teaching activities when they become part of the teaching staff. The university QA Coordination Office organizes at the end of each semester a survey to assess the level of satisfaction and collects opinions of employees for possible further development.

An increase of the number of students must be avoided in order not to jeopardise the indicators I1, I2 & I3, which are now still in range. A decrease in the number of students would be beneficial to the faculty.

(10)- The faculty has a PhD programme. To become member of the teaching staff a PhD is required. Teachers take an effort in bringing students into contact with the actual research topics of their discipline. Students can participate in research projects of academics on a voluntary basis. Students are offered an elective course of 3 ECTS about basic principles of scientific research & publications. Continuing education programmes are organised for post-graduates. The faculty does not organise residency programmes. The faculty is advised to look into veterinary specialisation options, by analogy with the European and American boards of veterinary specialisation.

11.1.3. Brief description of the process and the implication of staff, students and stakeholders in the development, implementation, assessment and revision of the QA strategy of the Establishment

Alumni and Employer Advisory Committee meetings provide valuable feedback on the qualification of graduated students in the field. These returns allow for necessary arrangements regarding education and training. The BUU has an alumni portal aimed at communicating with graduates.

11.2. Comments

The ISO9000:2015 quality standard is a widespread model for a quality system that focuses on the effectiveness of business processes within companies. Although it is universally applicable, there are more performance quality management models for educational institutions, of which the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) is the most used within Europe and beyond.

QA structures and supporting elements thereof are at university level, based on the ISO9000:2015 model and are only very recently installed at faculty level. Except for the

adaptation of the veterinary curriculum explained in 3.1.1.3 & 3.1.1.5., PDCA-cycles are mentioned but not yet sufficiently demonstrated.

In an educational environment several of the typical educational aspects are not emphasized enough by the use of the ISO9000:2015 QA model:

- There is no assessment of individual courses.
- There is no evaluation of individual teachers.
- There is no evaluation of the different elements of every unit of study, that contribute to a positive learning environment (Learning effect, teaching style, structure of the course, approachability of the teacher, evaluation of the course, course material, exercises, demonstrations, clinics, the use of active learning, feedback after assessment, use of electronic learning environment, workload of the unit of study).
- Within the used student surveys there is no room for individual comments from the student; the main reason why the relatively low satisfaction rate could not be pinpointed. Only 57% satisfaction about learning resources and 60% satisfaction in the assessment of the education by students was reported following student surveys. Room for open comment could have clarified this.

The faculty QA-committee is only recently installed and is currently in the process of adopting the university's ISO9001:2015 standards at faculty level. The goal of the faculty QA committee is to achieve an integral quality culture through continuous improvement for which new projects and activities are carried out.

The moment is ideal to pay extra attention to the comments made above and to supplement the ISO model with elements that are available in the ESG model.

Only one student representative chosen by the five representatives, one student of each year, can attend the official committees of the faculty. In most faculties this number is considerably higher.

11.3. Suggestions for improvement

Although there is proof of a supported policy of QA, it is recommended that the Establishment takes into careful consideration the comments that were made in the 'Comments'-section of this chapter, in order to strengthen the QA-policy in an educational environment.

English translation of all relevant (QA) documents makes assessment by international organisations much easier.

11.4. Decision

The Establishment is compliant with Standard 11.

12. ESEVT Indicators

Name of the Establishment: Bursa		12-dec-19			
Date of the form filling:		12-dec-19			
Calculated Indicators from raw data		Establishment values	Median values ¹	Minimal values ²	Balance ³
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,154	0,16	0,13	0,028
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	0,866	0,87	0,59	0,276
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,717	0,94	0,57	0,151
I4	n° of hours of practical (non-clinical) training	990	906	595	395
I5	n° of hours of clinical training	1342	933	670	672
I6	n° of hours of FSQ & VPH training	640	287	174	466
I7	n° of hours of extra-mural practical training in FSQ & VPH	188	68	29	159
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	42,375	70,48	42,01	0,366
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	7,627	2,69	0,46	7,164
I10	n° of equine patients seen intra-murally / n° of students graduating annually	0,333	5,05	1,30	-0,965
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	4,331	3,35	1,55	2,785
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,518	6,80	0,22	0,295
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	8,588	15,95	6,29	2,293
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0,039	2,11	0,60	-0,556
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	0,723	1,33	0,55	0,175
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,176	0,12	0,04	0,132
I17	n° of companion animal necropsies / n° of students graduating annually	1,916	2,07	1,40	0,516
I18	n° of ruminant and pig necropsies / n° of students graduating annually	1,134	2,32	0,97	0,164
I19	n° of equine necropsies / n° of students graduating annually	0,029	0,30	0,09	-0,063
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	0,703	2,05	0,69	0,010
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,294	0,20	0,06	0,231
I22*	n° of PhD graduating annually / n° of students graduating annually	0,092	0,15	0,09	0,004
1	Median values defined by data from Establishments with Approval status in April 2016				
2	Recommended minimal values calculated as the 20th percentile of data from Establishments with Approval status in April 2016				
3	A negative balance indicates that the Indicator is below the recommended minimal value				
*	Indicators used only for statistical purpose				

Raw data

Calculated Indicators



13. ESEVT Rubrics (summary of the decision on the compliance of the Establishment for each ESEVT Standard, i.e. compliance (C), partial compliance (PC) (Minor Deficiency) or non-compliance (NC) (Major Deficiency))

Standard 1: Objectives and Organisation	C	PC	NC
1.1. The Establishment must have as its main objective to provide, in agreement with the EU Directives and ESG recommendations, adequate, ethical, research-based, evidence-based veterinary training that enables the new graduate to perform as a veterinarian capable of entering all commonly recognised branches of the veterinary profession and to be aware of the importance of lifelong learning.	X		
1.2. The Establishment must develop and follow its mission statement which must embrace all the ESEVT standards.	X		
1.3. The Establishment must be part of a university or a higher education institution providing training recognised as being of an equivalent level and formally recognised as such in the respective country.	X		
1.4. The person responsible for the veterinary curriculum and the person(s) responsible for the professional, ethical, and academic affairs of the Veterinary Teaching Hospital (VTH) must hold a veterinary degree.	X		
1.5. The organisational structure must allow input not only from staff and students but also from external stakeholders.	X		
1.6. The Establishment must have a strategic plan, which includes a SWOT analysis of its current activities, a list of objectives, and an operating plan with timeframe and indicators for its implementation.	X		
Standard 2: Finances			
2.1. Finances must be demonstrably adequate to sustain the requirements for the Establishment to meet its mission and to achieve its objectives for education, research and services.	X		
2.2. The finance report must include both expenditures and revenues and must separate personnel costs, operating costs, maintenance costs and equipment.	X		
2.3. Resources allocation must be regularly reviewed to ensure that available resources meet the requirements.	X		
2.4. Clinical and field services must function as instructional resources. Instructional integrity of these resources must take priority over financial self-sufficiency of clinical services operations. Clinics must be run as efficiently as possible.	X		
2.5. The Establishment must have sufficient autonomy in order to use the resources to implement its strategic plan and to meet the ESEVT Standards.	X		
Standard 3: Curriculum			
3.1. The curriculum must be designed, resourced and managed to ensure all graduates have achieved the graduate attributes expected to be fully compliant with the EU Directive 2005/36/EC as amended by directive 2013/55/EU and its Annex V.4.1.	X		
3.2. The learning outcomes for the programme must be explicitly articulated to form a cohesive framework.	X		
3.3. Programme learning outcomes must be communicated to staff and students and: -) underpin and ensure the effective alignment of all content, teaching, learning and assessment activities of the degree programme; -) form the basis for explicit statements of the objectives and learning outcomes of individual units of study; -) be regularly reviewed, managed and updated to ensure they remain relevant, adequate and are effectively achieved.	X		
3.4. The Establishment must have a formally constituted committee structure (which includes effective student representation), with clear and empowered reporting lines, to oversee and manage the curriculum and its delivery. The committee(s) must: -) determine the pedagogical basis, design, delivery methods and assessment methods of the curriculum, -) oversee QA of the curriculum, particularly gathering, evaluating, making change and responding to feedback from stakeholders, peer reviewers and external assessors, and data from examination/assessment outcomes, -) review the curriculum at least every seven years by involving staff, students and stakeholders, -) identify and meet training needs for all types of staff, maintaining and enhancing their competence for the on-going curriculum development.	X		
3.5. The curriculum must include the subjects (input) listed in Annex V of EU Directive 2005/36/EC and must allow the acquisition of the Day One Competences (output) (see Annex 2). This must concern all groups of subjects, i.e. Basic Sciences, Clinical Sciences, Animal Production, Food Safety and Quality, and Professional Knowledge.		X	
3.6. External Practical Training (EPT) are training activities organised outside the Establishment, the student being under the direct supervision of a non academic person (e.g. a practitioner). EPT cannot replace the core intramural training nor the extramural training under the close supervision of academic staff (e.g. ambulatory clinics, herds visits, practical training in FSQ).	X		
3.7. Since the veterinary degree is a professional qualification with Day One Competences, EPT must complement and strengthen the academic education by enhancing for the student the handling of all common domestic animals, the understanding of the economics and management of animal units and veterinary practices, the communication skills for all aspects of veterinary work, the hands-on practical and clinical training, the real-life experience, and the employability of the prospective graduate.	X		
3.8. The EPT providers must have an agreement with the Establishment and the student (in order to fix their respective rights and duties, including insurance matters), provide a standardised evaluation of the performance of the student during their EPT and be allowed to provide feedback to the Establishment on the EPT programme.	X		
3.9. There must be a member of the academic staff responsible for the overall supervision of the EPT, including liaison with EPT providers.	X		
3.10. Students must take responsibility for their own learning during EPT. This includes preparing properly before each placement, keeping a proper record of their experience during EPT by using a logbook provided by the Establishment and evaluating the EPT. Students must be allowed to complain officially or anonymously about issues occurring during EPT.	X		
Standard 4: Facilities and equipment			
4.1. All aspects of the physical facilities must provide an environment conducive to learning.	X		

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4.2. The veterinary Establishment must have a clear strategy and programme for maintaining and upgrading its buildings and equipment.	X		
4.3. Lecture theatres, teaching laboratories, tutorial rooms, clinical facilities and other teaching spaces must be adequate in number, size and equipped for the instructional purposes and must be well maintained. The facilities must be adapted for the number of students enrolled.	X		
4.4. Students must have ready access to adequate and sufficient study, self-learning, recreation, locker, sanitary and food services facilities.	X		
4.5. Offices, teaching preparation and research laboratories must be sufficient for the needs of the academic and support staff.	X		
4.6. Facilities must comply with all relevant legislation including health, safety, biosecurity and EU animal welfare and care standards.	X		
4.7. The Establishment's livestock facilities, animal housing, core clinical teaching facilities and equipment must: -) be sufficient in capacity and adapted for the number of students enrolled in order to allow hands-on training for all students -) be of a high standard, well maintained and fit for purpose -) promote best husbandry, welfare and management practices -) ensure relevant biosecurity and bio-containment -) be designed to enhance learning.			X
4.8. Core clinical teaching facilities must be provided in a VTH with 24/7 emergency services at least for companion animals and equines, where the Establishment can unequivocally demonstrate that standard of education and clinical research are compliant with all ESEVT Standards, e.g. research-based and evidence-based clinical training supervised by academic staff trained to teach and to assess, availability for staff and students of facilities and patients for performing clinical research and relevant QA procedures. For ruminants and pigs, on-call service must be available if emergency services do not exist for those species in a VTH. The Establishment must ensure state-of-the-art standards of teaching clinics which remain comparable with the best available in the private sector.	X		
4.9. The VTH and any hospitals, practices and facilities (including EPT) which are involved with the curriculum must meet the relevant national Practice Standards.	X		
4.10. All core teaching sites must provide dedicated learning spaces including adequate internet access.	X		
4.11. The Establishment must ensure students have access to a broad range of diagnostic and therapeutic facilities, including but not limited to: pharmacy, diagnostic imaging, anaesthesia, clinical pathology, intensive/critical care, surgeries and treatment facilities, ambulatory services and necropsy facilities.	X		
4.12. Operational policies and procedures (including biosecurity, good laboratory practice and good clinical practice) must be taught and posted for students, staff and visitors.			X
4.13. Appropriate isolation facilities must be provided to meet the need for the isolation and containment of animals with communicable diseases. Such isolation facilities must be properly constructed, ventilated, maintained and operated to provide for animal care in accordance with updated methods for prevention of spread of infectious agents. They must be adapted to all animal types commonly handled in the VTH.			X
4.14. The Establishment must have an ambulatory clinic for production animals or equivalent facilities so that students can practise field veterinary medicine and Herd Health Management under academic supervision.	X		
4.15. The transport of students, live animals, cadavers, materials from animal origin and other teaching materials must be done in agreement with national and EU standards, to ensure the safety of students and staff and to prevent the spread of infectious agents.	X		
Standard 5: Animal resources and teaching material of animal origin			
5.1. The number and variety of healthy and diseased animals, cadavers, and material of animal origin must be adequate for providing the practical training (in the area of Basic Sciences, Clinical Sciences, Pathology, Animal Production, Food Safety and Quality) and adapted to the number of students enrolled.		X	
5.2. It is essential that a diverse and sufficient number of surgical and medical cases in all common domestic animals and exotic pets be available for the students' clinical educational experience and hands-on training.			X
5.3. In addition to the training provided in the Establishment, experience can include practical training at external sites, provided this training is organised under direct academic supervision and at the same standards as those applied in the Establishment.		X	
5.4. The VTH must provide nursing care skills and instruction in nursing procedures.	X		
5.5. Under all situations students must be active participants in the workup of patients, including physical diagnosis and diagnostic problem oriented decision making.	X		
5.6. Medical records must be comprehensive and maintained in an effective retrieval system (preferably an electronic patient record system) to efficiently support the teaching, research, and service programmes of the Establishment.	X		
Standard 6: Learning resources			
6.1. State-of-the-art learning resources must be available to support veterinary education, research, services and continuing education. Timely access to learning resources, whether through print, electronic media or other means, must be available to students and staff and, when appropriate, to stakeholders. State-of-the-art procedures for bibliographical search and for access to databases and learning resources must be taught to undergraduate students.	X		
6.2. Staff and students must have full access on site to an academic library, which is administered by a qualified librarian, an Information Technology (IT) unit, which is managed by an IT expert, an e-learning platform, and the relevant human and physical resources necessary for development by the staff and use by the students of instructional materials.	X		
6.3. The Establishment must provide students with unimpeded access to learning resources which include scientific and other relevant literature, internet and internal study resources, and equipment for the development of procedural skills (e.g. models). The use of these resources must be aligned with the pedagogical environment and learning outcomes within the programme, and have mechanisms in place to evaluate the teaching value of innovations in learning resources.	X		
6.4. The relevant electronic information, database and other intranet resources must be easily available for students and staff both in the Establishment's core facilities via wireless connection (Wi-Fi) and from outside the Establishment via Virtual Private Network (VPN).	X		
Standard 7: Student admission, progression and welfare			

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7.1. The selection criteria for admission to the programme must be consistent with the mission of the Establishment. The number of students admitted must be consistent with the resources available at the Establishment for staff, buildings, equipment, healthy and diseased animals, and materials of animal origin.	X		
7.2. In relation to enrolment, the Establishment must provide accurate information in all advertisements regarding the educational programme by providing clear and current information for prospective students. Further, printed catalogue and electronic information must state the purpose and goals of the programme, provide admission requirements, criteria and procedures, state degree requirements, present Establishment descriptions, clearly state information on tuition and fees along with procedures for withdrawal, give necessary information for financial aid programmes, and provide an accurate academic calendar.	X		
7.3. The Establishment's website must mention the ESEVT Establishment's status and its last Self Evaluation Report and Visitation Report must be easily available for the public.	X		
7.4. The selection and progression criteria must be clearly defined, consistent, and defensible, be free of discrimination or bias, and take account of the fact that students are admitted with a view to their entry to the veterinary profession in due course.	X		
7.5. The Establishment must regularly review and reflect on the selection processes to ensure they are appropriate for students to complete the programme successfully, including consideration of their potential to meet all the ESEVT Day One Competences in all common domestic species (see Annex 2).	X		
7.6. Adequate training (including periodic refresher training) must be provided for those involved in the selection process to ensure applicants are evaluated fairly and consistently.	X		
7.7. There must be clear policies and procedures on how applicants with disabilities or illnesses will be considered and, if appropriate, accommodated in the programme, taking into account the requirement that all students must be capable of meeting the ESEVT Day One Competences by the time they graduate.	X		
7.8. The basis for decisions on progression (including academic progression and professional fitness to practise) must be explicit and readily available to the students. The Establishment must provide evidence that it has mechanisms in place to identify and provide remediation and appropriate support (including termination) for students who are not performing adequately.	X		
7.9. The Establishment must have mechanisms in place to monitor attrition and progression and be able to respond and amend admission selection criteria (if permitted by national or university law) and student support if required.	X		
7.10. Mechanisms for the exclusion of students from the programme for any reason must be explicit.	X		
7.11. Establishment policies for managing appeals against decisions, including admissions, academic and progression decisions and exclusion, must be transparent and publicly available.	X		
7.12. Provisions must be made by the Establishment to support the physical, emotional and welfare needs of students. This includes, but is not limited to, learning support and counselling services, careers advice, and fair and transparent mechanisms for dealing with student illness, impairment and disability during the programme. This shall include provision of reasonable accommodations/adjustments for disabled students, consistent with all relevant equality and/or human rights legislation.	X		
7.13. There must be effective mechanisms for resolution of student grievances (e.g. interpersonal conflict or harassment).	X		
7.14. Mechanisms must be in place by which students can convey their needs and wants to the Establishment.	X		
7.15. The Establishment must provide students with a mechanism, anonymously if they wish, to offer suggestions, comments and complaints regarding compliance of the Establishment with the ESEVT standards.	X		
Standard 8: Student assessment			
8.1. The Establishment must ensure that there is a clearly identified structure within the Establishment showing lines of responsibility for the assessment strategy to ensure coherence of the overall assessment regime and to allow the demonstration of progressive development across the programme towards entry level competence.	X		
8.2. The assessment tasks and grading criteria for each unit of study in the programme must be clearly identified and available to students in a timely manner well in advance of the assessment.	X		
8.3. Requirements to pass must be explicit.	X		
8.4. Mechanisms for students to appeal against assessment outcomes must be explicit.	X		
8.5. The Establishment must have a process in place to review assessment outcomes and to change assessment strategies when required.		X	
8.6. Programme learning outcomes covering the full range of professional knowledge, skills, competences and attributes must form the basis for assessment design and underpin decisions on progression.		X	
8.7. Students must receive timely feedback on their assessments.	X		
8.8. Assessment strategies must allow the Establishment to certify student achievement of learning objectives at the level of the programme and individual units of study.	X		
8.9. Methods of formative and summative assessment must be valid and reliable and comprise a variety of approaches. Direct assessment of clinical skills and Day One Competences (some of which may be on simulated patients), must form a significant component of the overall process of assessment. It must also include the quality control of the students logbooks in order to ensure that all clinical procedures, practical and hands-on training planned in the study programme have been fully completed by each individual student.		X	
Standard 9: Academic and support staff			
9.1. The Establishment must ensure that all staff are appropriately qualified and prepared for their roles, in agreement with the national and EU regulations. A formal training (including good teaching and evaluation practices, learning and e-learning resources, biosecurity and QA procedures) must be in place for all staff involved with teaching. Most FTE academic staff involved in veterinary training must be veterinarians. It is expected that greater than 2/3 of the instruction that the students receive, as determined by student teaching hours, is delivered by qualified veterinarians.	X		
9.2. The total number, qualifications and skills of all staff involved with the programme, including teaching staff, 'adjunct' staff, technical, administrative and support staff, must be sufficient and appropriate to deliver the educational programme and fulfil the Establishment's mission.	X		
9.3. Staff who participate in teaching must have received the relevant training and qualifications and must display competence and effective teaching skills in all relevant aspects of the curriculum that they teach, regardless of whether they are full or part time, residents, interns or other postgraduate students, adjuncts or off-campus contracted teachers.	X		

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9.4. Academic positions must offer the security and benefits necessary to maintain stability, continuity, and competence of the academic staff. Academic staff should have a balanced workload of teaching, research and service depending on their role; and should have reasonable opportunity and resources for participation in scholarly activities.	X		
9.5. The Establishment must provide evidence that it utilises a well-defined, comprehensive and publicised programme for the professional growth and development of academic and support staff, including formal appraisal and informal mentoring procedures. Staff must have the opportunity to contribute to the Establishment's direction and decision making processes.	X		
9.6. Promotion criteria for academic and support staff must be clear and explicit. Promotions for teaching staff must recognise excellence in, and (if permitted by the national or university law) place equal emphasis on all aspects of teaching (including clinical teaching), research, service and other scholarly activities.	X		
Standard 10: Research programmes, continuing and postgraduate education			
10.1. The Establishment must demonstrate significant and broad research activities of staff that integrate with and strengthen the veterinary degree programme through research-based teaching.	X		
10.2. All students must be trained in scientific method and research techniques relevant to evidence-based veterinary medicine.	X		
10.3. All students must have opportunities to participate in research programmes.	X		
10.4. The Establishment must provide advanced postgraduate degree programmes, e.g. PhD, internships, residencies and continuing education programmes that complement and strengthen the veterinary degree programme and are relevant to the needs of the profession and society.	X		
Standard 11: Outcome Assessment and Quality Assurance			
11.1. The Establishment must have a policy for quality assurance that is made public and forms part of their strategic management. Internal stakeholders must develop and implement this policy through appropriate structures and processes, while involving external stakeholders.	X		
11.2. The Establishment must have processes for the design and approval of their programmes. The programmes must be designed so that they meet the objectives set for them, including the intended learning outcomes. The qualification resulting from a programme must be clearly specified and communicated, and refer to the correct level of the national qualifications framework for higher education and, consequently, to the Framework for Qualifications of the European Higher Education Area.	X		
11.3. The Establishment must ensure that the programmes are delivered in a way that encourages students to take an active role in creating the learning process, and that the assessment of students reflects this approach.	X		
11.4. The Establishment must consistently apply pre-defined and published regulations covering all phases of the student "life cycle", e.g. student admission, progression, recognition and certification.	X		
11.5. The Establishment must assure themselves of the competence of their teachers. They must apply fair and transparent processes for the recruitment and development of staff.	X		
11.6. The Establishment must have appropriate funding for learning and teaching activities and ensure that adequate and readily accessible learning resources and student support are provided.	X		
11.7. The Establishment must ensure that they collect, analyse and use relevant information for the effective management of their programmes and other activities.	X		
11.8. The Establishment must publish information about their activities, including programmes, which is clear, accurate, objective, up-to date and readily accessible.	X		
11.9. The Establishment must monitor and periodically review their programmes to ensure that they achieve the objectives set for them and respond to the needs of students and society. These reviews must lead to continuous improvement of the programme. Any action planned or taken as a result must be communicated to all those concerned.	X		
11.10. The Establishment must undergo external quality assurance in line with the ESG on a cyclical basis.	X		
<i>C: (total or substantial) compliance; PC: partial compliance (Minor Deficiency); NC: non-compliance (Major Deficiency)</i>			

Executive Summary

The Faculty of Veterinary Medicine (FVMB), Bursa Uludag University (BUU) was founded in 1978 as the 4th veterinary faculty in Turkey.

The clinics of the Faculty were originally established in the city center (Merinos campus) in 1981 and were moved to the current Animal Hospital building in 2008.

The Veterinary Teaching and Research Farm (VTF) was established in 1987.

In 2007 the present organisation of the Faculty was established with five main divisions namely: 1. Basic Sciences, 2. Preclinical Sciences, 3. Clinical Sciences, 4. Food Hygiene and Technology, 5. Zootechnics and Animal Nutrition.

FVMB was first evaluated in November 2004 by EAEVE. The team pointed out several major and minor deficiencies. A follow-up visitation was carried out in 2008 and the FVMB gained Conditional Approval Status. EAEVE Approved Status was obtained after the last EAEVE visitation in 2010. Since then, several amendments affecting the study programme and facilities have been introduced.

The current ESEVT Visitation was performed in agreement with the SOP 2016.

The SER was well written, however, with a few omissions which were rectified either before or during the Visitation.

The Team had a number of pre-site visit questions which were answered in great detail and thereby adding to a thorough understanding of the Bursa curriculum, the strengths and the weaknesses of the Establishment and many other important details.

Illustrations and tables were sufficient and relevant to understand the Bursa concept of teaching veterinary medicine integrated with research in a large university setting. Much material was also brought to the Team's knowledge during the Visitation.

A couple of recalculated tables has been added to the Team's report.

The interviews on Thursday revealed academic and technical staff and students very eager to supply the Team with additional information and also more critical remarks relevant to the different groups.

Areas worthy of praise (i.e. Commendations), e.g.:

- The financial situation is favourable and with an upward trajectory
- The net income at the clinics is retrieved for use in the faculty
- There is a sufficient research and teaching supporting research in many areas of the Establishment
- There is good and relevant access to many production animals at the university farm
- Students are enthusiastic and committed
- The staff is loyal and dedicated
- The library, the IT resources and the UKEY platform, providing an excellent support for learning and training
- The IT-services and very useful homemade software developed at the University
- The possibilities for continuing professional development of the staff
- The service offered to students and the student welfare considerations
- The diagnostic laboratory offers a 24/7 service
- The VTH pharmacy service
- The commitment of academic staff to teaching activities
- The commitment to training of the staff
- The support of the physical, emotional and welfare needs of the staff by the Establishment

Areas of concern (i.e. Minor Deficiencies):

1. Partial compliance with Substandard 3.5 because of suboptimal balance between mandatory and elective subjects in diagnostic imaging, equine clinical sciences and food hygiene and sub-optimal compensation for the insufficient clinical training in pigs;
2. Partially compliance with Substandard 5.1 because the number of pigs and diseased equine is low;
3. Partial compliance with Substandard 5.3 because EU Regulations about GMP/GHP and HACCP rules (EU Reg 852/2004 and 853/2004) are not fully observed in the external slaughterhouse, , so that it provides a suboptimal environment for students' visits;
4. Partial compliance with Substandards 8.5, 8.6 and 8.9 because of suboptimal assessment of learning outcomes.

Suggestions for improvement, e.g.:

Standard 1

- The Faculty should consider widening the existing inclusion of support staff and students in the decision processes, by including at least two students per committee, and by including students in the Animal Welfare council and the commission on social, sports and cultural activities, for example.

Standard 3

- The Establishment should consider increasing the curriculum length (for example 5.5 years) in order to increase the students' mandatory core curriculum and to better cope with the increasing number of students. However, it has to be noticed that such a decision is only possible if the number of students is decreased, in order to maintain the I1 indicator at an acceptable value (see 7.1).
- The Establishment should consider a progressive transition towards a more interactive pedagogical approach during the first 3 years, and to increase the number of sessions devoted to case/problem based training.
- Clinical, practical training in equines must be increased, in order to enhance hands-on training of the students with these animal species, especially in sick animals. Strategies to increase the intramural and extramural caseload in equines should be implemented to assure the acquisition of the Day One Competences.
- The number of elective courses for food-producing animals, including modules, should be reduced and more clinical hands-on activities implemented in the core curriculum.
- It is suggested that the Faculty establishes a contract with an up-to-date slaughterhouse and defines a fixed number of mandatory visits/hours per student under overall supervision of a teacher.
- The suggestion that is made in 3.1.3 (increasing the curriculum length) will also allow the further development of some subjects like HACCP in the mandatory part of the curriculum.

Standard 4

- Design of isolation facilities should secure the containment of potential pathogens from isolated animals.
- Facilities should be compliant with welfare, safety and biosecurity standards and should be designed to promote best husbandry, welfare and management practices.

Standard 5

- The pre-clinical activities of core courses should be further implemented at the Veterinary Teaching Farm and animals present in the VTF more extensively used for teaching purposes.
- The number of agreements with practitioners, private clinics and private or public organisations should be elaborated to increase the number of equine for both Animal Production and clinical hands-on activities.
- The number of pigs in the VTF should be increased or a relevant e-learning course and the use of phantom animals and mannequins introduced to give students basic knowledge about this species.

Standard 6

- In addition to the extension of the general library, the team supports the Faculty's suggestion to increase the number of seats within the Faculty rooms devoted to self/group studying.

Standard 7

- The number of students should remain on the actual level not to jeopardise the indicators I1, I2 & I3 or be reduced.

Standard 8

- The partial compliances with Substandards 8.5, 8.6 & 8.9 are related and must be considered as one partial compliance. Assessment of learning outcomes should be visualised. Although all external stakeholders (farm manager, government veterinarians and private practitioners) are very enthusiastic about the quality of the students they receive, an official system should be in place, to assess the learning outcomes, taking into consideration the recommendations of the external stakeholders.
- The key learning competences should be elaborated in a way that all ESEVT DOC's are covered (see also section 8.1.2).

Standard 11

- Although there is proof of a supported policy of QA, It is recommended that the Establishment takes into close consideration the comments that were made in the 'Comments'-section of this chapter, in order to strengthen the QA-policy in an educational environment.
- English translation of all relevant (QA) documents makes assessment by international organisations much easier.

Items of non-compliance with the ESEVT Standards (i.e. Major Deficiencies):

1. Non-compliance with Substandard 4.7 because of insufficient promotion of welfare and management practices in livestock facilities;
2. Non-compliance with Sub-standard 4.12 and 4.13 because of inadequate teaching and display of biosecurity rules for students, staff and visitors and because of inappropriate isolation facilities for large animals;
3. Non-compliance with Substandard 5.2 because the students' clinical educational experience and hands-on training in equine is not sufficient.

Glossary

EAEVE: European Association of Establishments for Veterinary Education

EBVS: European Board of Veterinary Specialisation

ECOVE: European Committee on Veterinary Education

EPT: External Practical Training

ESEVT: European System of Evaluation of Veterinary Training

ESG: Standards and Guidelines for Quality Assurance in the European Higher Education Area

F4SQ: Food Safety and Quality

FTE: Full-Time Equivalent

IT: Information Technology

QA: Quality Assurance

SER: Self Evaluation Report

SOP: Standard Operating Procedure

VPH: Veterinary Public Health

VTH: Veterinary Teaching Hospital

Standardised terminology

Accreditation: status of an Establishment that is considered by ECOVE as compliant with the ESEVT Standards normally for a 7 years period starting at the date of the last (full) Visitation;

Establishment: the official and legal unit that organise the veterinary degree, either a university, faculty, school, department, institute;

Ambulatory clinic: clinical training done extramurally and fully supervised by academic trained teachers;

Establishment's Head: the person who officially chairs the above described Establishment, i.e. Rector, Dean, Director, Head of Department, President, Principal, ..;

External Practical Training: clinical and practical training done extramurally and fully supervised by non-academic staff (e.g. practitioners);

Major Deficiency: a deficiency that significantly affects the quality of education and the Establishment's compliance with the ESEVT Standards;

Minor Deficiency: a deficiency that does not significantly affect the quality of education or the Establishment's compliance with the ESEVT Standards;

Visitation: a full visitation organised on-site in agreement with the ESEVT SOP in order to evaluate if the veterinary degree provided by the visited Establishment is compliant with all ESEVT Standards; any chronological reference to 'the Visitation' means the first day of the full on-site visitation;

Visitation Report: a document prepared by the Visitation Team, corrected for factual errors and finally issued by ECOVE; it contains, for each ESEVT Standard, findings, comments, suggestions and identified deficiencies.

Decision of ECOVE

The Committee concluded that the following Major Deficiencies had been identified:

1. Non-compliance with Substandard 4.7 because of insufficient promotion of welfare and management practices in livestock facilities;
2. Non-compliance with Sub-standard 4.12 and 4.13 because of inadequate teaching and display of biosecurity rules for students, staff and visitors and because of inappropriate isolation facilities for large animals;
3. Non-compliance with Substandard 5.2 because the students' clinical educational experience and hands-on training in equine is not sufficient.

The Faculty of Veterinary Medicine, Bursa Uludag University is therefore classified as holding the status of: **NON-ACCREDITATION**.