

**European Association  
of Establishments for Veterinary Education**



**VISITATION REPORT**

**To the Faculty of Veterinary Medicine, Burdur Mehmet Akif Ersoy University, Burdur,  
Turkey**

**On: 07 – 11 October 2019**

**By the Visitation Team:**

**Marinka Drobnič Košorok**, Ljubljana, Slovenia: Visitor in Basic Sciences

**Dolores Pérez Alenza**, Madrid, Spain: Visitor in Clinical Sciences in Companion Animals

**Raphaël Guattèo**, Nantes, France: Visitor in Clinical Sciences in Food-Producing Animals

**Theophanes Liatis**, Kirkcaldy, UK: Practitioner

**John Elmerdahl Olsen**, Copenhagen, Denmark: Visitor in Food Safety and Quality

**Massimo Castagnaro (Chairperson)**, Padua, Italy: Visitor in Quality Assurance

**Tavishi Pandya**, London, UK: Student

**Philip Duffus**, Bristol, UK: ESEVT Coordinator

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## **Introduction**

Mehmet Akif Ersoy University took its name from the national poet Mehmet Akif Ersoy who was the writer of the Turkish National Anthem and was also a veterinarian. Mehmet Akif Ersoy served as Burdur deputy in the first parliament of the Turkish Republic.

Mehmet Akif Ersoy University was founded in March 2006 in Burdur as a State University. The name of Mehmet Akif Ersoy University was changed as Burdur Mehmet Akif Ersoy University (MAKU) in May 2018.

As of the end of 2018, the university has 11 faculties and several colleges. In the 2018-2019 academic year, the number of students within the university had reached thirty-one thousand. The Faculty of Veterinary Medicine (MAKU-VET) is one of the two core faculties (together with the Faculty of Education) from the foundation of the University. MAKU-VET was founded in July 1992 as an establishment of Akdeniz University.

An important development is that MAKU was selected as a pilot university in the field of “Husbandry” within the scope of the project “Mission Differentiation and Specialization of Universities with Regional Development Focus” coordinated by the Turkish Council of Higher Education (YÖK) in cooperation with Republic of Turkey Ministry of Treasury and Finance (RTMTF).

MAKU-VET completed the national accreditation (VEDEK-Association for Evaluation and Accreditation of Educational Institutions and Programmes of Veterinary Medicine in Turkey) visit between 5-9 November 2018 and received “conditional accreditation” on 28 December 2018 for 2 years.

MAKU-VET has never previously undergone an Evaluation of Veterinary Training (ESEVT) visitation.

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**

In the SER, MAKU-VET declared its 8 priority strategic lines of action for the five year period 2016-2021 and has performed an updated SWOT analysis which is summarized as an item list in a table with 11 strengths, 9 weaknesses, 4 opportunities and 6 threats.

#### **1.1.2. Brief description of the Operating Plan**

In the SER, MAKU-VET has also identified an operating plan with 4 objectives (Increasing the Quality of Education, Increasing the quantity and quality of research and development activities, Developing Social Contributions and Relations with Stakeholders, Strengthening the Structure of Management and Administrative Units) associated with specific targets, annual timeframe and non-quantitative indicators.

#### **1.1.3. Brief description of the organisation of the Establishment**

The SER contain an organizational chart of MAKU-VET (dean, faculty council, vice deans, administrative board, advisory board, divisions, VTH and non-teaching staff) along with the composition and main assignment for the faculty council, faculty administrative board and advisory board. There is also a list of Commissions and Coordinators of MAKU-VET.

The Dean is appointed by the YÖK for a period of three years. He appoints at most two vice-deans among the faculty members to assist him in his duties. Amongst his task and duties the Dean also:

- a. Chairs the faculty boards;
- b. Implements the decisions of the faculty boards;
- c. Ensures regular work among the faculty units;
- d. Reports to the Rector about the general condition and functioning of the faculty at the end of each academic year and when requested;
- e. Performs general supervision on the units of the faculty and its staff at all levels.

The Dean is primarily responsible to the Rector in the rational use and development of the teaching capacity of the faculty and its affiliated units, taking necessary security measures, providing the necessary social services to the students, conducting education and training, scientific research and publication activities regularly, supervising and controlling all activities.

Divisions consists of departments complementary or close to each other. Each division is managed by the head of the division. The head of the division is responsible for the education, research and regular and efficient conduct of all institutional activities. The head of the division joins the faculty board and represents the division. The academic staff activities of the division are monitored and supervised by the head of the division.

The Division Board consists of deputy chairmen and heads of departments and meets during the academic year to discuss the items to be determined by the head of the division. The division board gives opinions on the preparation of the plans and principles of cooperation in order to make the most effective use of the programmes, tools, equipment and physical facilities of the educational applications and research activities of the departments connected to the division. Suggestions prepared by the division board on these issues are applied after the approval of the department chair.

#### **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**

The strategic plan has been initially developed by a strategic planning commission where the Dean, division and academic staff member representatives are present. The commission made written and face-to-face meetings with internal and external stakeholders to determine an identification of priority objectives before establishing a strategic plan.

Once approved by the faculty board, the strategic plan has been revised almost annually. Strategic plan objectives are followed annually by the strategic planning commission and the quality assurance commission. Both commissions are responsible to the Dean and the Faculty Board.

There were no student representatives in the development of last strategic plan prepared in 2016. However, MAKU-VET is planning to involve students in the development of the next strategic plan so that students' opinions and suggestions will be taken into consideration.

Stakeholders involved in the development of the strategic plan include practitioner veterinarians and the meat and dairy sector representatives in Burdur. Their views on their expectations from the faculty were taken and reflected in the strategic plan.

Practitioners demanded increasing the diversity of clinical services and clinical laboratory analyses and the diversification and sustainability and provision of mobile clinical services. Sector representatives, in cooperation with the faculty on a regional basis, demanded solutions to livestock problems.

#### **1.2. Comments**

- Some items of the SWAT analysis present in the Operating Plan are not in the right place. For example, the delay in implementation of QA System and the difficulty of adopting these processes should be considered a weakness rather than a threat. The SWOT analysis was not performed with full contributions by the academic and administrative divisions and internalization was missing.
- The relationship between field practitioners working in the food producing animals' area and MAKU-VET is very good and is an example of how to implement the involvement of practitioners in the companion animal field.

#### **1.3. Suggestions for improvement**

The operating plan is lacking specific quantitative target/midterm indicators to monitor the objectives. To facilitate the monitoring process, MAKU-VET should include in its operating plan clear unambiguous quantitative mid-term and target indicators.

#### **1.4. Decision**

The Establishment is compliant with Standard 1, except for Substandards 1.5 and 1.6:

- The Establishment is partially compliant with Substandard 1.5 because of the insufficiency in students' contribution for the development of the Strategic Plan.
- The Establishment is partially compliant with Substandard 1.6 because of the insufficiency of unambiguous clear indicators for the monitoring of strategic objectives.

## **2. Finances**

### **2.1. Findings**

#### **2.1.1. Brief description of the global financial process of the Establishment and its autonomy**

MAKU is a state-owned university operating under the umbrella of the Turkish Council of

Higher Education (YÖK). Every year, the budget is sent to the Turkey Ministry of Treasury and Finance (RTMTF). Once approved by the RTMTF the proposed budget is then sent to Turkey's Grand National Assembly's (TBMM) Budget and Planning Commission. This latter commission approves the budget proposal through its General Assembly. Finally, the budget is sent to the President of the Republic for approval. After approval by the President, it is published and then available for the beginning of the financial year.

However, it should be noted that due to the economic climate within Turkey, the requested budget is usually reduced by the above central authorities. Once agreed on, the budget is allocated by the Rectorate to meet the needs of the faculties.

Salaries and social insurance, various expenses such as cleaning, maintenance-repair, internet, heating, water and electricity are covered for MAKU-VET by the Rectorate.

Research funds provided by University Scientific Research Projects Unit (BAP) for academic projects and fees derived from the activities of MAKU-VET (hospital and other diagnostic unit revenues) are also sources within the budget.

In addition to the above, further financial input is met by Husbandry projects funded by the Presidency Strategy and Budget Department of the Republic of Turkey.

The MAKU-VET administration has autonomy for the use of the budget with priorities being decided on by the Dean in line with the needs and demands of the academic unit.

Revenues of VTH and laboratory units are free of taxes. However, 1% of the revenue is transferred to the rectorate budget. Additionally, 9 % of the revenue provided from the services are transferred to BAP for funding future research projects.

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

This data is clearly set out in the SER under Tables 2.1.1, 2.1.2 and 2.1.3.

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

It is difficult to estimate the expenditures and revenues for the next 3 years. It is estimated that revenues will increase with the recruitment of facilities and capabilities of the VTH. Also, we do not expect a budget problem due to the husbandry project which will, however, be completed by the end of 2021.

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

VTH has introduced an electronic registration system in August 2019. A new mobile clinical vehicle was purchased and equipped in 2018, a modern hoof trimming vehicle was also purchased. Isolation units and necropsy hall were re-designed and equipped. The university farm was modernized, and 90 cows purchased.

All these facilities and equipment were funded by "Husbandry project" supported by the RTMTF.

#### **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**

Every year, the faculty administration negotiates with the academic and administrative personnel and the heads of departments to elucidate their requests. These requests are pooled

and sent to the Rectorate. After an evaluation and decision by the Rectorate, the final budget is transferred to the faculty. In reality, this final budget has never been the initial desired amount. The Dean distributes this budget in a balanced manner considering the primary needs of the departments. If there is insufficient budget and there are urgent demands, the Dean can ask for an extra budget from the Rectorate.

The Dean uses revenues derived from internal sources, such as the VTH, primarily for the demands of the units that generated such revenue.

## **2.2. Comments**

The awarding of the “Husbandry Project” to the Establishment is of obvious benefit both as providing extra teaching resources, as well as excellent opportunities for research projects.

## **2.3. Suggestions for improvement**

In future, with the introduction of an electronic recording system within the VTH and an increased level of publicity, the income generated by such clinical activities will be vital for the Establishment.

## **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**

In accordance with The Mission and The Vision of MAKU-VET the aim of the Establishment is to be a veterinary faculty that is successful in education, research, clinical work and field services. The education programme is aimed to provide deep theoretical knowledge and strong practical training in different areas of veterinary profession to the students of Veterinary Medicine following the EU Directive 2005/36/ EC. The graduates are supposed to develop rational solutions for national and global problems, contribute to country development and universal science, provide high quality services to the needs of the society and are sensitive to the environment.

To achieve these aims The Establishment in 2014 implemented the current five-year (ten semesters) curriculum.

Basic subjects and basic sciences are given in the first four semesters following by two semesters of combination of basic, clinical and zootechnic subjects. The last two years (last four semesters) are devoted to theoretical and practical clinical training, food sciences, veterinary forensic medicine, environmental protection and entrepreneurship courses. From the fifth to ninth semester students are rotating at different clinics. At this time, they are also taken out to the extramural training. During the tenth semester one half of the semester (nine weeks) is devoted to internship at VTH and the rest to Food Safety and Quality in slaughterhouses, milk processing plants to practice ante-mortem and post-mortem examination, inspect process flow in food processing plants for sanitation and HACCP.

Mandatory summer training, extra practical training is required for 20 working days (320 hours) in slaughterhouses, meat or milk processing plants, in governmental research laboratories, private clinics and hospitals or farms under supervision of non-academic veterinarians.

At present there is no common curriculum for veterinary education in Turkey. Experts from different Turkish veterinary faculties have recently prepared a draft of a national curriculum for veterinary education which is at the moment under discussion. All Veterinary faculties are invited to give comments and suggestions for improvement.

In the administrative and academic procedures, universities have to be ruled according to major Higher Education Law no 2547. Foreign Language, Turkish Language, Atatürk's Principles and Reforms courses are common compulsory ones which are taught by higher education institutions at least for two semesters.

**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-listed subjects are taught, mainly as individual courses as listed in SOP or implemented in some existing subjects. Students are supposed to take 4-6 ECTS elective courses each semester, all together 40 ECTS (11%).

**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 Education and Teaching Commission is supposed to oversee and manage the curriculum and also its delivery. The Commission collect the suggestions from different stakeholders (students, departments, external stakeholders), discusses them and prepare the proposal to the Faculty Board, the decision-making body of the faculty.

Beside the design of the curriculum, delivery and assessment methods of the curriculum, identification and correction of overlaps, redundancies, omissions or insufficiency in consistency is also the responsibility of the Education and Teaching Commission. However, no clear and empowered reporting lines have been established as yet for this purpose by the Establishment.

It is expected (Standard 3) that the curriculum is reviewed at least every seven years. Staff, students and stakeholders are supposed to take part in this revision. The present curriculum was introduced in 2014. Until now, no major changes were introduced.

The Commission also has the responsibility to meet the training needs (professional, pedagogic, QA) of all types of staff to enhance their competences for curriculum development and should address this activity as soon as possible.

**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)**

Students are supposed to take 4 ECTS as elective courses per semester and 6 ECTS at 7<sup>th</sup> and 9<sup>th</sup> semester.

The procedures related to the delivery of elective courses in the faculty are carried out according to the "Principles of Opening and Applying Elective Courses" prepared by the Education and Teaching Commission and approved by the Faculty Board. The ratio of elective courses is at least 10% of the total ECTS credits of the whole curriculum.

Students are free to choose courses from the elective course pool available for each semester. However, if the number of students who choose the course is less than 15, the course will not be delivered; and for the students who had chosen these courses, other elective courses are

offered. If the interest for a particular elective course is very high, students are divided into more teaching groups.

### **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**

The revision of the curriculum by the Education and Teaching Commission is undertaken on the demand of the divisions, stakeholders or students. After finalization of the draft curriculum, it is sent to the Faculty Board for approval. After approval by the Board, it also has to be approved by the MAKU Senate.

### **3.1.2. Comments**

- The planned learning outcomes are evident from the Course structure and published on the web page of the Establishment.
- There is no clear evidence of the correlation with the proposed learning outcomes and Day One Competences and underpinning knowledge and understanding.
- Although learning outcomes are theoretically well defined and the progression is described, they are not, however, fully in line with Day One Competences.
- It is not clear how large is the impact of student opinion on the curriculum, since official student organisation for such a purpose is not well organised.
- Distribution of teaching hours are unbalanced (from 256 h in the 1<sup>st</sup> semester to 648 h in the 10<sup>th</sup> semester)
- The Establishment has not as yet established clear and empowered reporting lines for monitoring and revision on the achievement of the accepted learning outcomes. This should be done either by The Education and Teaching Commission or QA Commission
- No procedure for life-long learning is undertaken for professional, pedagogic or QA management skills.

### **3.1.3. Suggestions for improvement**

- The Education and Teaching Commission as well as QA Commission must develop clear protocols for evaluation and revision of learning outcomes, evaluation of achievement of learning outcomes, regular periodic revision of the curriculum, evaluation of student assessment and protocols for organisation of lifelong learning, particularly in the methodology of teaching, mentoring, student assessment and quality management.

## **3.2. Basic sciences**

### **3.2.1. Findings**

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

Basic sciences courses are given mainly in the first 4 semesters (Anatomy, Histology and Embryology, Biochemistry, Physiology, Microbiology-1, Genetics, Pharmacology-1, General Virology, General Parasitology, Immunology and Serology) continuing in the 5<sup>th</sup> and 6<sup>th</sup> semester (Entomology, Pharmacology-2, Microbiology-2, Special Virology, General Pathology, Zootechnics-1, Animal Welfare, Animal Nutrition and Nutritional Disease).

Three types of teaching methods are in use in teaching basic sciences: lecture, laboratory practical work and supervised self-learning work as seen from the basic sciences courses structure published on the web site. Supervised self-learning is organized in the first four semesters as multidisciplinary course in which different problems are offered to the students. Each student or a group of students is supposed to present one item from the list per semester.

Practical education in basic sciences is mostly carried out as laboratory work or nonclinical animal work as in the case of anatomy.

### **3.2.2. Comments**

The number of contact hours in the first and later semesters is not balanced, although 30 ECTS is allocated to each semester.

### **3.2.3. Suggestions for improvement**

The number of contact hours in the first or last semesters should be balanced.

## **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**

In the information provided in the SER, the clinical sciences subjects start in semesters 5th and 6th with subjects as *Introduction to Surgery* and *Introduction to Internal Medicine*. Through 7th to 10th semesters, subjects are structured to create clinical knowledge of students, and to obtain clinical skills and competences.

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

There are four initial compulsory theoretical courses that prepare students of the 5th semester for the clinical rotations including: *Introduction to Internal Medicine* and *Introduction to Surgery courses*, accompanied by the practical course *Clinical Practice I*. From the 6th to the 9th semester, compulsory theoretical subjects such as *General Surgery*, *Introduction to Obstetrics and Gynaecology*, *Small Animal Internal Medicine*, *Oncology*, *Obstetrics and Gynaecology I*, *Small Animal Surgery*, *Diagnostic Imaging Techniques*, *Obstetrics and Gynaecology II*, *Anaesthesiology*, *Veterinary Orthopaedics and Traumatology* are taught. The objective of these courses is the acquisition of basic clinical examination skills and knowledge in common diseases of small and large animals. The abovementioned courses are accompanied by complementary practical subjects such as: *Clinical Practice II*, *Clinical Practice III*, *Clinical Practice IV* and *Clinical Practice V*, which are taught mainly at the VTH; but also, in the ambulatory clinic (Shelter medicine in municipality structures, regional Zoo). Clinical practice is taking place, also, in the VTH during the final year in the denominated '*Veterinary Medicine Internship Programme*'. Biosecurity SOPs are introduced verbally to students at the VTH as well and it is available in written documents. *Exotic Animal Medicine*, *Emergency and Critical Care*, *Neurosurgery*, *Clinical Pathology*, *Dentistry* etc. are offered as elective courses.

#### **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...)**

In different semesters (Semesters 5 to 9), students are rotated in clinics. Clinical rotations include 16 weeks in 5th and 6th semester (4 hours/week), 16 weeks in 7th to 9th semester (8 hours/week), and Internship' in the clinics is located in the 10th semester and includes 9 weeks (32 hours/week).

Fifth-year students stay at the 27/4 emergency clinic at least 2 days during their rotations.

Students assist the supervising teaching staff in the diagnosis and treatment of clinical cases, but they are not directly involved in clinical procedures.

In addition, at the end of the 6th and 8th semesters, students are required to have a type of mandatory summer training EPT.

The students have online logbooks in which, clinical skills are listed. In order to pass the courses, students need to have all the clinical skills done. In the case that a student is not able to get one or more clinical skills, there are 2 extra weeks in order to get the clinical skills pending.

The offer of elective subjects is large, in the 5 years of the veterinary degree, students must have at least 40 credits in total. The minimum number of students per elective is 10, but there is no upper limit and teaching staff agree in accepting larger number of students per elective. Some electives are more attractive to the students as professional English, agricultural, exotics, experimental animals, for example.

### **3.3.2. Comments**

- The ambulatory clinic involvement within shelter and zoo medicine is worthy of praise.
- Interdisciplinary and interdepartmental communication regarding companion animals is insufficient to ensure that the preclinical theoretical knowledge is aligned effectively with the requirements of the clinical subjects.
- Clinical topics (e.g. clinical signs of a disease) are taught within preclinical subjects, therefore an overlap cannot be avoided.
- The Education and Teaching Commission, created 3 years ago, is an exclusively advisory body to the Faculty board, as the latter can autonomously approve or reject the proposed suggestions. As a result, several suggestions are often not taken into account. In the abovementioned Committee, there was only one representative from clinical sciences, who in fact represented reproduction department only, resulting in insufficient representation of companion animal clinical disciplines.
- Propaedeutics (*Introduction to Internal Medicine* and *Introduction to Surgery*) are deficient in practical teaching as the latter is not structured ensuring that each student will achieve sufficient hand-on training.
- Diagnostic imaging, anaesthesiology and analgesia and clinical pathology lack structured practical teaching, although some aspects of practical teaching for these subjects is given in Clinical Practice-I-V and internship.
- Orthopaedics, Ophthalmology, Emergency and Critical Care, Dentistry, Exotic Animal Medicine, Neurosurgery, Equine Medicine & Surgery should be included in compulsory subjects in order to meet the standards of Day One Competences.
- Clinical pharmacology should not be taught exclusively by preclinical departments, but with significant collaboration with clinical departments.
- Practical teaching (necropsy) in anatomical pathology regarding companion animals do not reach the adequate number of hours per student.
- Professional communication (e.g. client communication) should be included in the curriculum in alignment with clinical subjects.
- EPT gives the option to split the practice either in companion animals or in production animals (6 weeks), on top of a mandatory public health practice. EPT should be split equally into companion animal practice, productive animal practice and food hygiene and technology/public health.
- Considering the above-mentioned reasons, the acquisition of Day One Competences for students are not fully assured by the curriculum.
- The intramural rotation within the clinics is referred as 'internship', which is not appropriate terminology based on international standards. This practicum is organized

in a non-structured manner in order to ensure that the minimum clinical skills in all species are achieved by all of the students.

- Students should be directly involved in all the clinical procedures, instead of being observers of the clinical activities performed by a teacher, PhD or master student.
- Species-based theoretical and practical training should be established, so as each student can meet the Day One Competences for each species.

### **3.3.3. Suggestions for improvement**

- The number of structured practical hours in companion animal clinical subjects is strongly suggested to be increased, especially in propaedeutics, clinical pathology, anaesthesiology, analgesia and diagnostic imaging.
- The content of clinical subjects should be harmonised between the different subjects in order to ensure that there is no overlapping, nor deficiencies in the clinical subjects.
- Subjects as anaesthesiology, analgesia, clinical pathology and diagnostic imaging should be included in the curriculum as independent subjects and not inside the denominated clinical practice subjects.
- Increase the proportion (at least in one member) of representative member in the curriculum committee and improve the procedures of the quality assessment of the curriculum (see QA chapter)
- A reorganization of the practicum is needed, in order to ensure that all the students are properly trained in all the clinical subjects listed in the EU regulations.
- A modification of the clinical procedures in the VTH (small and large animals) is mandatory. Students must be involved in all clinical activities: taking history, doing the physical examinations, developing problem lists, differential diagnoses and treatment proposal; supervised by teachers. Students also need to be trained in patient discussions, and thus, a presentation of at least one case each of the disciplines (eg internal medicine, surgery, anaesthesia.) should be prepared and presented by each student during the practicum.
- A modification of electives is suggested: electives should not be part of compulsory subjects, but, in the case that they are already covered, there might be given as electives but with more practical teaching.

## **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**

In the information provided in the SER, the clinical sciences subjects related to food-producing animals start in semesters 5th and 6th with subjects as Introduction to Surgery and Introduction to Internal Medicine. Through 7th to 10th semesters, subjects are structured to create clinical knowledge of students, and to obtain clinical skills and competences similarly to what is done in companion animals for all livestock species. At this stage teaching related to swine production is done theoretically.

The first contact with animals in a clinical context (handling for example) occurs within the 7<sup>th</sup> semester, especially utilising the goat farms within 'Clinical Practice I, II, III, IV and V' subjects. Previous contact should occur on husbandry teaching within the department of animal science or within the department of nutrition, but it remains unclear from either the SER or the visitation whether any such handling teaching is delivered.

The much longer period of contact with clinical cases and normal animals takes place during the 9<sup>th</sup>/10<sup>th</sup> semester during the ‘internship’.

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

There are several initial compulsory theoretical courses during the 5th semester that prepare students for the clinical rotations in FPA including: Introduction to Internal Medicine, Introduction to Surgery, Animal science and Animal welfare, as well as an unstructured practical course which represents propaedeutic: Clinical Practice I.

From the 6th to the 9th semester, there are also several compulsory theoretical subjects that contribute in preparing students for the clinical rotations in FPA, such as Bee diseases (no clinical rotations afterwards), General Surgery, Introduction to Obstetrics and Gynaecology, Large Animal Internal Medicine, Animal Science II, Food Hygiene and Control, Obstetrics and Gynaecology I, Meat and Dairy Inspection, Large Animal Surgery, Diagnostic Imaging Techniques, Obstetrics and Gynaecology II, Udder health, Anaesthesiology, Veterinary Orthopaedics and Traumatology, Veterinary Public Health.

However, the information from the SER and the visitation proved less informative to the extent they fully prepare students for the clinical rotations. Discussions with the student body did, however, confirm that they felt that this pre-clinical teaching was sufficient to prepare them for clinical rotations.

The objective of these courses is the acquisition of basic clinical examination skills and knowledge in common diseases of large animals. The abovementioned courses are accompanied by complementary practical subjects such as: Clinical Practice II, Clinical Practice III, Clinical Practice IV and Clinical Practice V, which are taught mainly at the VTH; but also, in the ambulatory clinic (village cooperation and large herds visitations) and through EPT. In addition, clinical practice is taking place in the VHT during the final year in ‘Veterinary Medicine Internship Programme’.

Biosecurity SOPs are introduced to students at the VTH as well and is available in written documents. Infertility in cows, ration knowledge, alternative poultry breeding, neonatal diseases, poultry diseases, bull selection, internal disease of horses, internal disease of swine are offered as elective courses.

### **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, ..*)**

In different semesters (Semesters 5 to 9), students are rotating in clinics but mainly during their “internship”.

Clinical rotations include courses are 16 weeks in 5th and 6th semester (4 hours/week), 16 weeks in 7th to 9th semester (8 hours/week), and ‘Internship’ in the clinics is located in the 10th semester and includes 9 weeks (32 hours/week).

The partition between different rotations and different species is not totally clear. Before the visitation, the following table was provided by the. The fact that some rotations are discipline-oriented and not species oriented still makes it difficult to estimate the time accorded to each species.

<b>Group</b>	<b>Department</b>	<b>Duration</b>	<b>Hours per week</b>
<b>Clinical Sciences</b>	Dept.of Surgery	9 weeks	8 hours
	Dept.of Internal Medicine		8 hours
	Dept. of Obstetrics and Gynaecology		8 hours
	Dept. of Reproduction and Artificial Insemination		8 hours
<b>Zootechnics and Animal Nutrition</b>	Dept. of Animal Science	9 weeks (3 weeks each)	8 hours
	Dept. of Nutrition and Nutritional Diseases		8 hours
	Dept. of Animal Health Economics and Management		8 hours
<b>Food Hygiene and Technology</b>	Department of Food Hygiene and Technology	9 weeks	8 hours
<b>Pre-clinical Sciences</b>	Dept. of Microbiology	9 weeks	2 hours
	Dept. of Pathology		2 hours
	Dept. of Virology		2 hours
	Dept. of Parasitology		2 hours
	Dept. of Pharmacology and Toxicology		2 hours
<b>Basic Sciences</b>	Dept. of Anatomy	9 weeks	2 hours
	Dept. of Biochemistry		2 hours
	Dept. of Physiology		2 hours

Fifth-year students stay at the 27/4 emergency clinic for at least 2 days during their rotations. Students assist the supervising teaching staff in the diagnosis and treatment of clinical cases, but they are not directly involved in clinical procedures, whatever the species.

There is one porcine farm visit and two visits to poultry farms.

There is a mobile clinic for the five weekdays, 2 days are devoted to food hygiene, one day to a small animal shelter, and 2 days for FPA (one day for village cooperation and one for large herds visits). On further investigation during the visitation between 5 and 8 farms have a contract with the Faculty for regular (monthly) farm visits. A close relation with private practitioner does also exist for this activity. During the farm visits, in terms of food-producing animal medicine, the academic staff takes the history and make the initial clinical examination. At that stage, students can practice some aspects of a clinical examination, but there is no structured practical exercise attributed for each student and little discussion with the students occurs. In addition, there is no debriefing of the cases afterwards.

In terms of obstetrics, more individual practical exercise does occur (e.g. rectal palpation and usage of ultrasound to pregnant cows).

In addition, at the end of the 6th and 8th semesters, students are required to have a mandatory summer training Extra Practical Training (EPT): 10 days are mandatory in food hygiene; the rest is at the discretion of the student.

Similar to small animals the students have online logbooks in which clinical skills are listed. In order to pass the courses, students need to have performed all the clinical skills. In cases

where a student is unable to complete their clinical skills, there are 2 extra weeks in order to get the missing clinical skills.

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

A brief description for the education of animal production is depicted in Section 3.4.1.3. The non-species-oriented course (such as reproduction) made it difficult to discriminate between components (small animal, animal production of food-producing animals, clinical aspects). However, teaching related to livestock organisation, nutrition and husbandry and breeding occur before the clinical rotation. Nevertheless, the content of the practical components was insufficiently detailed and structured.

There is an absence of coordination between departments to check for overlaps, redundancies or more complementary approaches.

#### **3.4.2. Comments**

- Discussion with practitioners confirmed the dynamics, enthusiasm and the skills of both the students and the academic staff (who also offer CPD based on their needs).
- The link between the field practitioners and stakeholder and the academic staff is regular and strong
- The goat and cattle farms offer opportunities to further build practical and clinical teaching
- The mobile clinic and the related organisation not only provide the livestock for first opinion cases, but allow contact with external stakeholders.
- The building and facilities for artificial insemination are excellent.
- As is the case with small animals, the hours of the clinical subjects have been unequally distributed throughout the curriculum creating an imbalance between theoretical, practical and clinical teaching.
- The teaching devoted to reproduction is substantial, probably linked to the importance of this aspect on the field. However, this leads to less time on other important aspects (such as lameness, welfare, herd health management).
- Herd health management (HHM) relies on reproduction monitoring. The other aspects (dry cow management, milk production follow-up, calf management, welfare, lameness etc.) are not part of this HHM, or at least HHM appears less structured to include these important areas.
- During the visitation there was an absence of a clear overall teaching strategy for livestock.
- Again during the visitation the absence of discussion and collaboration between departments to coordinate and articulate the teaching was important.
- Some basic propaedeutic aspects are absent or reduced in components such as locomotion scoring, body condition scoring, farm data analysis.
- Cases or clinical analysis coming from the goat and cattle farm belonging to the faculty should lead to increased discussion and collaboration between departments.
- There are several electives during the last semesters without obvious practical teaching. The proportion of electives are not sufficiently balanced throughout the curriculum. A proportion of the electives cover topics that should be included into compulsory teaching (fluid therapy, clinical laboratory diagnoses, infertility in cows, neonatal disease, evaluation of clinical laboratory findings).
- A remaining concern is about the size of the groups.

### **3.4.3. Suggestions for improvement**

- Courses should be mixed in order to encourage multi-disciplinary practice, a species-oriented approach and case-resolution
- Closer collaboration between departments is needed (for example, milk fever approached by nutrition, animal science, reproduction, internal medicine, pharmacology etc.) so providing opportunities to save time and give coherence to the teaching
- Harmonize and monitor (through a computer based system for instance) the number and type of clinical subjects in order to ensure that there are no overlaps or deficiencies in the clinical subjects
- The use of teaching farms (goats and cattle) but especially cattle farms should be further emphasized as plenty of opportunities exist to teach basic aspects of medicine (lameness, pain management for example) as well as more basic science practical's for areas such as parasitology, animal husbandry, animal welfare and clinical pharmacology.
- Each student must be involved in all clinical activities: history taking, physical examinations, developing problem lists, differential diagnoses and treatment proposals; supervised by teachers.
- Structure of herd health management should be reinforced.
- Further develop a clinical skill laboratory (CSL).
- A reorganization of the curriculum is necessary to ensure that all the students are properly trained in all the clinical subjects listed in the EU regulations (Day one Competences).
- A modification of the clinical procedures in the VTH (small and large animals) is needed. As mentioned above, students must be involved in all clinical activities: history taking, undertaking physical examinations, developing problem lists, differential diagnoses and treatment proposals; all supervised by teachers.
- Students also need to be trained in patient discussions, and a presentation of at least one case for each of the disciplines (internal medicine, surgery, anaesthesia) should be prepared and presented by each student.

## **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 (FSQ) is taught on the 6<sup>th</sup> and 7<sup>th</sup> semester in the courses Food Hygiene and Control (3 ECTS), Meat Inspection and Technology (ECTS) and Dairy Inspection and Technology (3 ECTS). Topics include general food microbiology, microbial and chemical contaminants and their effect on human health, hygiene concepts, HACCP, risk analysis, meat and dairy technology, meat and dairy inspection and legal framework for slaughterhouses and meat inspection.

In addition, students can choose elective courses in FSQ, namely Food microbiology application techniques Food safety and quality systems, and Poultry products hygiene and technology, all with 2 credit points. However, in the last three years, none of these courses have been active.

#### **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**

Practical training in meat inspection (ante and postmortem), milk hygiene inspection, hygiene control and HACCP is performed during 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> year in groups of 12-14 students. The establishment has contracted with a private cattle slaughterhouse nearby for practical training of meat inspection. The facility is well suited as the process is delivered at a reasonable speed; maximum 200 cows can be slaughtered per day and usually fewer are slaughtered. Instruction to students is given by members of faculty and faculty provides protective clothing for the students. The establishment also has contract with dairy plants for production of traditional products. This is used for teaching of milk technology and production hygiene. Each student has to perform External Practical Training in FSQ for at least 2 weeks during 3<sup>rd</sup> and 4<sup>th</sup> year. There are no poultry slaughterhouses within reach of the Establishment and meat inspection on White Meat (poultry and pig) is done using pictures during lectures.

### **3.5.2. Comments**

Teaching in food safety and quality is delivered according to the Standards.

### **3.5.3. Suggestions for improvement**

In the insufficiency of slaughterhouse facilities for inspection of white meat, the Establishment should look into the possibility of using virtual training facilities, which are becoming available on-line.

## **3.6. Professional knowledge**

### **3.6.1. Findings**

#### **3.6.1.1. Brief description of the theoretical and practical education in Professional Knowledge**

Within the current curriculum, a total of 64 hours (48 hours theoretical; 16 hours practical) have been allocated to the Professional Knowledge field. More specifically: 4 compulsory subjects are taught as independent subjects:

- History of Veterinary Medicine (1 hour/week; Semester I)
- Entrepreneurship (2 hours/week; Semester IX)
- Veterinary Medicine Legislation (1 hour/week; Semester IX)
- Professional Ethics and Deontology (1 hour/week; Semester IX).

Elective courses associated with professional knowledge content are taught as well, such as: Computer (1 hour/week; Semester I), Professional English (1 hour/week; Semester III), Veterinary Clinic Management (1 hour/week; Semester IX).

Overall, Professional Knowledge is taught either as independent subjects or integrated as a part of other subjects. Veterinary certification & report writing is taught integrated within other subjects (e.g. meat inspection). Communication skills and information literacy & data management are not formally taught, based on the SER.

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

The External Practical Training (EPT) is obligatory and is held during summer between the 6<sup>th</sup> and 7<sup>th</sup> and between the 8<sup>th</sup> and 9<sup>th</sup> semesters. EPT consists of two summer periods (20 days per summer; a minimum of 160 hours/summer) of (a) companion or production animal clinical practice (3 weeks/year) and (b) food safety and quality and veterinary public health (1 week/year).

Students can choose an EPT host from a pool of public and private practices, organisations or companies; then they send an acceptance letter to the establishment, where the latter has to final confirm the EPT. The Establishment covers the health insurance of the students during

the EPT. Students are obliged to keep a logbook. The supervising practitioner has to sign the logbook and evaluate the students at the end of the EPT directly to 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)**

Preclinical and clinical (intra-and-extramural) accomplishments are recorded in an online logbook system denominated as the ‘*Student Applications Monitoring System*’. On this platform, all the departments of the establishment assign a minimum of accomplishments (based on ECCVT Day One Competences) that have to be achieved by the students until the end of the 10<sup>th</sup> semester. In order to pass the exams, all of these tasks have to be achieved, including either individual hands-on or group demonstrative activity.

EPT is evaluated separately through the personalised logbook (hardcopy) of each student consisting of a day-to-day calendar of skills achieved. This logbook is signed by the private veterinarians and is formally evaluated by a special EPT committee of the establishment.

**3.6.2. Comments**

- Professional communication (e.g. client communication) is not clearly taught within the core curriculum.
- EPT and its ECTS are not represented within the formal curriculum tables of the respective semesters, although EPT and its ECTS are represented in the Appendices as Summer Extra-mural work, 4ECTS.
- EPT is not equally distributed between companion animals, production animals and food hygiene and technology/public health.

**3.6.3. Suggestions for improvement**

- Professional communication (e.g. client communication) should be taught in a clear way within the curriculum, and specifically be associated timewise with clinical subjects of both companion and production animals.
- EPT should be represented within the formal curriculum of the respective semesters, providing clear information about the ECTS.
- EPT should be equally distributed among (a) companion animals, (b) production animals and (c) food hygiene and technology/public health.

**3.7. Decision**

The Establishment is compliant with Standard 3, except for Substandards 3.3, 3.4 and 3.5:

- The Establishment is not compliant with Substandard 3.3 because there is no alignment, coherence or organization of learning outcomes and there is no interdepartmental collaboration in regard to the learning outcomes for each subject.
- The Establishment is not compliant with Substandard 3.4 because there are insufficient regular methods developed for the revision of the curriculum and no structured and compulsory plan for lifelong staff training implemented by the Establishment.
- The Establishment is not compliant with Substandard 3.5 because of:
  - An absence of realistic QA procedures for monitoring and overseeing the curriculum
  - An insufficiency in formal correlation analysis between Day One Competences and programme learning outcomes available in the submitted documentation that would prove that professional Day One Competences have been attained by each student within the core curriculum

- Hands-on clinical skill performance by each individual student is not guaranteed as the logbook completion is based mostly on group observation of a clinical skill demonstration.
- Professional knowledge (i.e. communication skills) does not completely fulfil the Day One Competences
- Structured and species-based practical teaching of clinical subjects like propaedeutics, clinical pathology, anaesthesiology and analgesia, and diagnostic imaging is not adequately delivered.
- Multiple overlapping within the curriculum. The link between basic sciences and food producing animal clinical sciences is weak due mainly to the absence of an interdisciplinary approach.

## **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 Establishment is located on the main campus (Istiklal campus) of MAKU, which is located approximately 10 km away from the city centre. There are adequate connections between the city centre and the MAKU-VET by public transportation. The Agriculture, Livestock and Food Application and Research Centre is approximately 4 km away from the main building of MAKU-VET.

The main building was built in 2010 and the Veterinary Teaching Hospital in 2015. The location and amplitude (size) of the facilities are very adequate.

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

##### **- Lecturing, group work and practical work**

There are several lecturing and group work areas throughout the Establishment and the VTH.

##### **- Housing healthy, hospitalised and isolated animals**

Facilities for hospitalized patients are new and adequately built, but they are not routinely maintained nor adequately cleaned or disinfected. In fact, facilities for hospitalization are scarcely used. There are no isolation facilities for equines. Isolation facilities for large animals are available but are not routinely maintained nor used, due to legal national regulations.

##### **- Clinical activities, diagnostic services and necropsy**

There are plenty of rooms for clinical activities inside the VTH, which was built in 2015, as well as a diagnostic laboratory, a radiography room, and a necropsy room attached to the Pathology Department.

##### **- FSQ & VPH**

There are several places for didactic teaching and there is an adequate collaboration with external stakeholders to provide access to external food safety facilities such as slaughterhouses.

##### **- Study and self-learning, catering, locker rooms, accommodation for on call students and leisure**

Places for study and self-learning, catering and locker rooms are adequate. However, accommodation for students for on call duties are not routinely prepared and are rarely used. There is a large number of facilities for undertaking various sports, as well as several other facilities for students' leisure.

#### **4.1.3. Description of the adequacy for the veterinary training of the vehicles used for student transportation, ambulatory clinic, live animals and cadaver transportation**

Vehicles for student transportation, as well as the ambulatory clinic, are adequate, clean and

well-maintained. No cadaver transportation is available, as special municipality vehicles collect the cadavers from the Establishment. A special truck for transportation of live animals (e.g. calves, horses) is available.

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

Preclinical departments and the VTH are adequately equipped. More specifically, the VTH is equipped with several devices including ultrasonography, digital radiology, electrocardiography, electromyography, anaesthetic devices, ophthalmic microscope, video-otoscope, fluoroscope, among others. The majority of the equipment is adequately maintained and routinely used.

All the preclinical and clinical activities are recorded on paper and in large notebooks, but not electronically.

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

Biosecurity and biosafety SOP's are written and available for staff and students, but there is deficient implementation of these procedures within several departments as well as in the VTH.

#### **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**

The implication of the students and stakeholders in the development, implementation, assessment and revision of the facilities (including equipment and biosecurity) is absent. Only staff are involved in these issues.

### **4.2. Comments**

- Even though there are presently enough places for practical teaching within the Establishment, the increasing number of admitted students, especially due to the occurrence of horizontal transmission, decreases the quality of practical teaching in preclinical and clinical subjects.
- Students and stakeholders must be involved in the adequacy, maintenance and biosecurity policies and procedures of the facilities of the Establishment.
- Adequacy and management of the isolation facilities are not achieved due to structural deficiencies (inadequate floor, cages, tables; inadequate roof in the examination room for companion animals with infectious disease) as well as inadequate maintenance (dirt, clinical and medical equipment also not available in the room).
- Biosecurity policies and procedures are deficient and non-implemented in several departments as in anatomy, some areas of the VTH (biosecurity signals, publicly available SOPs, adequate use of radioprotection devices, adequate cleansing, management of chemical substances and control drug policies).
- It is of special concern for the inadequacy of the radiology room for companion animals, in which doors are not adequately constructed to assure radioprotection: doors did not contact directly with the floor with a gap between the door and the floor. For equines and ruminants, a portable device is used for radiological procedures, with the only example of personal protection systems. All the radiological procedures must be performed in a facility adequately prepared for it (a completely leaded room)
- Students must have adequate access to accommodation for on call duties.
- There is an urgent need to implement a retrievable system (electronically) to record the pre-clinical and clinical data so allowing comprehensive data to be freely available to all students. Patient's records, necropsy and biopsy reports should be structured and completed. Students should be involved in all the clinical procedures and must be

- allowed to access the electronic system without entering specific data.
- Clinical records currently consist of mixed-species records.

#### **4.3. Suggestions for improvement**

- Improve the management, maintenance and cleaning of facilities such as anatomy dissection room, consulting rooms, isolation facilities and radiology room.
- Establish and implement adequate policies of biosecurity and biosafety in anatomy dissection room, laboratories of several departments, as well as in VTH.
- It is advised the clinical records to be kept electronically as species-based or pet category-based such as (a) small animals, (b) productive animals, (c) equines, (d) exotics etc.

#### **4.4. Decision**

The Establishment is compliant with Standard 4 except for Substandards 4.3, 4.6, 4.7, 4.12 and 4.13:

- The Establishment is partially compliant with Substandard 4.3 because of:
  - The increasing number of admitted students decreases the quality of practical teaching delivery;
  - Insufficiency in the management and administration of medical equipment (including consumables such as blood sampling, bandaging, intravenous catheterization and other equipment);
  - The isolation facilities, consultation rooms and wards for hospitalised companion animals are often not adequately equipped to fulfil their routine use;
  - Adequacy of the isolation facilities is not achieved due to structural deficiencies and maintenance issues.
- The Establishment is partially compliant with Substandard 4.6 because of inadequacy of radioprotection policies and procedures and radio-safety measurements of the radiology room (e.g. inadequate door radio safety).
- The Establishment is not compliant with Substandard 4.7 because the biosecurity procedures are deficient in several departments such as in anatomy and because of insufficient biosafety/biosecurity within some areas of the VTH (biosecurity signals, publicly available SOPs, radioprotection, cleansing, management of chemical substances and control drug policies) and necropsy room (cleansing, formalin storage).
- The Establishment is not compliant with Substandard 4.12 because of deficient biosecurity, radioprotection and drug regulation procedures were deficient in several departments and in VTH.
- The Establishment is not compliant with Substandard 4.13 because of inadequacy of the isolation facilities due to construction deficiencies, ventilation and maintenance issues (i.e. roof, floor) as well as inadequate medical equipment availability (i.e. disposable material, kennels).

## **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.**

From the SER and the visitation, there is an inadequate strategy regarding the use of animals (number, variety) needed to match the learning outcomes. The 3R approach is not part of the process. There is no ethical agreement procedure for teaching activities as is present for research projects.

MAKU has a Local Ethics Committee for Experimental Animals; where among the 11 members, 4 are from the veterinary faculty. According to regulations, animals to be used both for education and experiments within MAKU should receive approval from this commission working under “The Universal Declaration on Animal Rights”, “European Convention on the Protection of Vertebrates to be Used for Experimental and Other Scientific Purposes” and “Regulation on the Working Procedures and Principles of Animal Experiments Committee” prepared by the Ministry of Environment and Forestry published in the Official Gazette No. 26220 dated July 6, 2006 (<https://hadyek.mehmetakif.edu.tr/>)

Although there is currently no clinical skills lab, the project is undergoing with the acquisition of several manikins in small animals and cattle (VSI models)

The absence of data in some areas (eg anatomy register) makes it difficult to assess numbers because of an apparent discrepancy in numbers between the SER and feedback from students. The VTH could certainly manage a higher number of cases due to the size and number of rooms. However, several rooms remain in a poor state.

**5.1.2. Description of the specific strategy of the Establishment in order to ensure that each student receives the relevant core clinical training before graduation, e.g. numbers of patients examined/treated by each student, balance between species, balance between clinical disciplines, balance between first opinion and referral cases, balance between acute and chronic cases, balance between consultations (one-day clinic) and hospitalisations, balance between individual medicine and population medicine.**

The number of cases and a breakdown of the types of clinical problems is not easy to access from the available data at the faculty. As a consequence, it is not easy for academic staff or students to follow the number and classification of cases. However, the logbook that needs to be checked and validated by staff can help in this context.

There is no monitoring system to ensure a similar exposure of the students to species/cases. The balance between first opinion and referral was not available. However, from discussion with students and staff it seems to be well balanced. Especially the contract with the city regarding dogs and cats allows 1<sup>st</sup> opinion cases.

In terms of species, there are inadequate number of cases in horses and exotic medicine.

Regarding necropsy, some indicators are below ESVT indicators (eg horses).

The logbook that needs to be completed by students does not truly allow the distinction between individual or group validation (for necropsy for instance).

In the mobile clinic, for FPA, the balance between population and individual medicine is not controlled. However, regarding number and type of activities, the balance should not be too difficult to achieve.

All specimens submitted for pathology are used for student learning – companion animals are derived from shelters and hospital patients that died despite treatment. Ruminants and equine cadavers are bought in. Exotics are collected from the surrounding area (farms, labs, zoos).

All cadavers are kept and stored in fridge. For post mortem material there is a contract with an appropriate company for the collection and destruction of the cadavers.

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

No detailed description was given. The hospital is overseen by a chief, vice chief and hospital director. The hospital is 24/7 365 days a year. An emergency clinic runs from 16:00-08:00 and during weekends. There is a service for intensive care.

There are rooms set aside for contagious animals and quarantine; however, there are as yet not

adapted (see chapter 4).

The VTH opened 7/24/365. At the entrance, cases are displayed according to internal medicine, surgery, emergency, reproduction, city contract for dogs and cats; the actual numbers are shown in the SER. This distinction makes it hard to calculate the species distribution.

The Students are not involved in the running of the teaching farms.

The cattle farm is not widely used for undergraduate students (except for reproduction/artificial insemination). Otherwise, little teaching takes place there. When a calving occurs, the veterinarian from the cattle farm undertakes the procedure without students or staff. The goat farms are utilised by animal science, nutrition and reproduction departments for practical teaching with students. Students go on the goat farms almost every week.

There is also a mobile clinic. Of the 5 days in a week when this clinic is effective, 2 days are devoted to food hygiene, one day to a small animal shelter, and 2 days for food-producing animals (one day for village cooperation and one for large herd visits). Between 5 to 8 farms have a contract with the faculty for regular monthly farm visits. These visits are undertaken with private practitioners with responsibilities for the individual farms. There are also possibilities for the faculty staff to get onto these farms to collect animals if it is not possible for the farmer to bring the animal to the VTH.

In addition, students also visit farms, villages and a zoo; plans exist to build a rehab centre for wildlife; contracts have been signed between horse farms and the VTH to increase patient load.

There are small ruminants, large ruminants and 3 horses on site for practical training

#### **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**

The size of the groups for preclinical hands-on and practical teaching are not clear. In the three first years, most of the practical teaching involve 30-35 students. For hands-on teaching at the goat farms for animal science, the number was reduced.

- For mobile clinics, there are between 10 and 12 students.
- For small animals and large animal intra-mural clinics, the size varies from 6 to 12 students but there are no clear limits.
- In the majority of cases the academic staff complete the clinical procedures, with one student helping and the others looking at the procedure.
- Emergency service has 4-6 students
- Usually, the history taking, first clinical examination is done by the academic staff. The students only look at the situation. The procedure to decide which student will do which procedure is not clear. During the visitation, the small number of cases in the VTH did not allow sufficient observation on how students are engaged in the clinical decision-making process.
- Students are assigned cases and are in charge of the follow-up when hospitalized. No case presentation (ppt, discussion) are in place or mandatory.
- During the farm visit, for the medical cases, the students were mainly passive, although for pregnancy diagnosis there was a strong involvement of the students and discussion with the staff member.
- For X-Ray, the students do not actively participate (undertaken by technicians and VTH staff)

**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**

At the moment, there is no electronic case record system to support teaching or data analysis. The only recording system relies on written books per department (no classification by species or intervention or student assignment). For pathology, the books contain necropsy details as well as but histopathology, biopsies, smears etc, making it difficult to find relevant numbers

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

Senior staff supervise all procedures. Owner permission is obtained orally, no formal consent. There is an ethics board for research animals. For teaching, the 3R approach or ethical agreement is not in place.

**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**

From the SER and during the visitation it appears that this aspect is not covered or discussed at any stage.

**5.2. Comments**

- The Day One Competences are not utilised sufficiently for designing the curriculum.
- The different type of contract (village cooperation, big herds, city contract, zoos) ensure a large variety of species and cases
- An insufficiency in clinical specialist veterinarians in the vicinity made MAKU VET the only referral centre in the area
- The discussion with the students highlights the fact that MAKU VET university has a reputation for their case log system and the practical teaching
- The area is a big area for the FPA assuring sustainable recruitment
- The husbandry project ensures good contacts with stakeholder and breeders/farmers
- A CSL will be put in place in the coming months
- Obtaining precise numbers and figures of clinical case was made difficult by the absence of an electronic system or even a suitable written recording system
- There is too little collaboration between basic and clinical sciences, especially for the basic sciences departments to benefit from the case load in the VTH or mobile clinic, so increasing both practical teaching and hands-on teaching.
- Student involvement in the clinical decision-making process is highly variable amongst the clinical services. As a general rule, the staff member from VTH does the entire initial examination (including history and communication with the owner).

**5.3. Suggestions for improvement**

- A modification of the clinical procedures in the VTH (small and large animals) is mandatory. Students must be involved in all clinical activities: taking history, undertaking physical examinations, developing problem lists, differential diagnoses and treatment proposal; all supervised by teachers.
- Students also need to be trained in patient discussions, and a presentation of at least one case for each of the disciplines (internal medicine, surgery, anaesthesia) should be prepared and presented by each student during the rotations.

- A computer-based system to monitor the cases in the VTH and mobile clinic is crucial. For anatomy, proper recording of the material is also crucial.
- Solutions need to be found to increase the number in deficient ESVT indicators (necropsy, equine cases).
- Ethical committee could also be in charge of evaluating teaching activities, not only for research

#### **5.4. Decision**

The Establishment is compliant with Standard 5 except for Substandards 5.1, 5.2 5.5 and 5.6:

- The Establishment is not compliant with Substandard 5.1 because of an inadequate number and variety of healthy and diseased animals and cadavers, below the ESEVT indicators.
- The Establishment is not compliant with Substandard 5.2 because of an insufficient diversity in cases and also quantitatively in certain species (equine, exotic animal)
- The Establishment is not compliant with Substandard 5.5 because students are not actively participating in the workup for patients (from history to clinical decision-making and clinical procedures).
- The Establishment is not compliant with Substandard 5.6 because of the absence of an efficient and comprehensive system to retrieve patient recording resulting in an insufficiency in statistical analysis to support teaching, research and the QA process.

## **6. Learning resources**

### **6.1 Findings**

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

The central library (Prof. Dr. İlhan Varank Library) of MAKU is located in the campus, very close to MAKU-VET. The library was established to support academic development, scientific research and personal development of faculty members, researchers and students.

The library, which is one of the most modern buildings on a national scale, serves to support traditional library services with the latest technological developments. Academic and administrative staff working in MAKU and students are all library members and can use library services for free. Non-member users can also use information sources within the library. The members can borrow books from the library periodically.

In the central library, there are 9 full-time employees, including 1 head of department, 4 librarians (Reader Services, Catalogue and Classification, Databases, Visually Impaired Unit), 2 computer operators and 2 auxiliary services staffs.

The library is open Monday to Saturday from 08:30 to 22:00. Working halls are open for users on the basis of 7/24 (except public holidays).

2018 budget of the library is 750.000 TL (Approximately 120.000 Euros).

Library occupies total closed area of 10290 m<sup>2</sup>. There is one 7 day/24 hours open study hall, 1 multi-purpose study hall, 2 general collection rooms, 4 conference halls, 2 seminar halls, 1 periodicals room, 12 individual study rooms, 4 group study rooms, 1 computer room, 1 disabled access room. The total seating capacity of the library is 999 persons.

Beside normal library activities, several scientific, professional, cultural and social events are organised in the library.

Students can connect to the internet with Wi-Fi. There is a total of 674 electrical connections for a portable PC. All materials in the library are transferred to the electronic environment using the “Yordam 2001-Library Information and Document Automation” programme and presented to the users via the internet.

**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 faculty has 190 computers (41 computers are located in the computer room and classrooms). Minitab, Kaspersky Local Antivirus, web developing programmes, software developing programmes are available in the software inventory of the faculty.

There is no e-learning course available so far. There is also no e-platform available, offering students and staff the possibility of an interactive communication in the learning/teaching process.

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

Students are able to use the computers and internet via free Wi-Fi located in the faculty and at the main campus (Eduroam). There is a Network System in the Central Library and all transactions and services are automated. Students and researchers are able to access publications through databases, trial databases, free databases subscribed by The Central Library. They can also access library information via mobile applications.

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

In the first week of the first semester, an orientation program is organized for the new students who have enrolled in MAKU-VET. A short tour is organized about the access to the library, wireless access, e-mail and other information technologies. The necessary guidance and assistance is provided by the staff working in the library and the study hall. During the year, students are given orientation training by the library staff. In addition, the students are provided with information about research methods, subject preparation and how to access information resources under the supervision of faculty members at self-learning courses. For the students who are enrolled in the MSc and PhD programmes, training is given on access to research and information resources under the Scientific Research Techniques, Article Writing and Ethics course. In addition, learning materials and access to information are provided both on the library and on the university website.

**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**

All sources (books, periodicals, databases, etc.) that will be included in the collection are selected according to the general education and training objective of the university, on the basis of the following criteria:

- a) The suitability for the university as subject and language for its programmes
- b) The suitability of books to the present field collection
- c) Significance and status of the author or editor
- d) Budgetary facilities
- e) Used in bibliographies
- f) Recommendations of university lecturers
- g) The reliability and standards of the publisher

h) Conformity of the physical form

## **6.2. Comments**

The chapter in the SER is written in very concise and transparent form, offering all most important information. From the information given in the SER and obtained during the site-visit, we can conclude that the access to classic and e- learning resources is well organised. There is no e-platform available, offering students and staff the possibility of an interactive communication in the learning/teaching process.

## **6.3. Suggestions for improvement**

Development of an e-learning platform

## **6.4. Decision**

The Establishment is compliant with Standard 6, except for Sub-Standard 6.2:

The Establishment is partially compliant with Substandard 6.2 because of insufficiency of an e-learning platform.

# **7. Student admission, progression and welfare**

## **7.1. Findings**

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

Students must be a High school graduate. Students must undertake two important exams, which are multiple choice in style and conducted by Student Choosing and Placement centre which is under the government supervision. The first exam is the Basic Qualification exam (TYT) which consist of; Turkish Language, Social Sciences, Basic Mathematics and Science (135 minutes for 120 questions). The second exam is the Field qualification exam (AYT) which consists of four sections; Turkish Language and Literature, Social Sciences 1-2, Mathematics and Science). The TYT and AYT scores (40% and 60%, respectively) are then averaged giving the overall score for the student.

Students are then allowed to make 18 choices to the Higher Education Council government service, namely YÖK for selection of the university and the faculty. They can find information on the government funded schools online. The veterinary medicine schools are also graded and so those students who have selected a school and are in the ranked threshold number for that school will obtain a place.

As a result, the school has no choice in selecting students. If a there was a case where a student was not deemed physically suitable (for an example a severe disability that could compromise delivery of care) this student may not be accepted. However, there has not yet been such a case. University education is free for all Turkish citizens.

### **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 suggests a numerical number of students suitable for the course; however, the final decision lies with the government service YÖK. The Establishment recommends 80 students per year.

However, YÖK decided that MAKU-VET should accept 100. The Establishment must also accept a variable number of students through horizontal transfer from other Turkish veterinary faculties with a higher admission points every year. This leads to course sizes exceeding the recommended number of students by the faculty to over 200%. Although this number of students do not strictly impair biosecurity and welfare requirements, the teaching in small

groups and individual hands-on activities can be severely affected.

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

Students must obtain 30 ECTS each term, these are awarded by the completion of both the midterm paper and end term paper. Students must achieve at minimum a CC which correlates to 60% to pass the examination.

Students who fail to meet this score are offered to complete a course over summer and to re-sit the examination. If the student fails to pass this exam, they are required to re-take the two semesters. Students must complete the full 5-year course within 8 years and cannot fail more than 5 courses.

Students must also pass the ‘internship’ aspect of the course which consists of 4 months practical work in the VTH. If this is failed students are offered 160 hours to retake this part of the course.

Students who fail exams are offered support from an appointed academic tutor.

There are no appeal processes for students who fail examinations.

This information is all available to students on the university website.

Although data from each year is available for attrition, this is not analysed so there are no indications for the rate or main causes of attrition.

**7.1.4. Brief description of the services available for students**

Each student is assigned an Academic tutor in their first year. These academic tutors have in total 10 students under their care. They are there for the first line teacher for students if they have any academic issues or personal problems, so in this respect are there to offer pastoral care. However, these tutors do not undergo any formal training in this capacity.

Students are able to access potential counselling from an onsite physiologist if needed.

There is no obvious procedure for students to raise suggestions or complaints. However, students are able to bring any issues they may have to the Vice-Dean.

**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 Faculty (staff or students) has no input in the admission procedure.

**7.2. Comments**

None

**7.3. Suggestions for improvement**

None

**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 are assessed on a midterm exam and a final exam. Students who fail are allowed to

sit a re-sit exam. Students are expected to submit a seminar and final year project in order to graduate. In order for the student to be successful in a course, 40% of the midterm exam and 60% of the final exam grade must be at least 60, provided that he/she takes at least 60 in the final exam.

**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**

Students are examined by a written paper and oral exams. Written exams can be in the form of multiple-choice tests, short or long answered questions. There are also practical exams.

Oral exams are the main criteria for the evaluation of practical skills in clinical training.

An online system (student applications monitoring system) is apply to verify that all the students have reached the attended preclinical and clinical skills. However, there is an insufficient assessment and quality control aimed to verify that each student involved in clinical hands-on training has acquired Day One Competences.

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

No systematic procedures are established for post-assessment feedback to students after exams. However, student can easily contact teachers to have a post-assessment feedback.

**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**

No formal systematic structure and procedures are established to review assessment outcomes and to change assessment strategies when required.

**8.2. Comments**

The online student application monitoring, developed at MAKU-VET, is an excellent system to verify that all students have reached the intended skills.

**8.3. Suggestions for improvement**

- The Establishment must develop a formal assessment and quality control aimed to verify that each student involved in clinical hands-on training has acquired Day One Competences.
- The Establishment must identify the structure(s) with the overall responsibility of systematically monitoring and revising student's assessment strategy.

**8.4. Decision**

The Establishment is compliant with Standard 8, except for Substandards 8.5 and 8.9:

- The Establishment is not compliant with Substandard 8.5 because of insufficiency in the systematic monitoring and revision of student's assessment strategy
- The Establishment is not compliant with Substandard 8.9 because of insufficiency in a reliable assessment and quality control for the Day One Competences, particularly those related to hands-on training.

## **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 Establishment has implemented a system to define the qualification of the teaching staff which is denominated “Academic Promotion and Appointment Criteria”. This system includes several criteria as research, professional experience, and teaching experience. Teaching staff recruited by the Establishment have to fulfil the requirements of these professional criteria.

Motivation of the teaching staff is high, and their qualifications and experience are adequate. The training of teachers in pedagogics and evaluation practices, as well as in learning and e-learning resources and in biosecurity and QA procedures is deficient.

Support staff are absent in almost all the departments; this insufficiency in supportive staff numbers is especially noticeable within the Veterinary Teaching Hospital.

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

The needs for academic staff are transmitted every year from the Departments to the Dean and the Rectorate. After approval by the Administrative Board, the demands are sent to YÖK which finally decides on the proposal of the Establishment. The approved positions are then submitted to a selection process based on the “Academic Promotion and Appointment Criteria”. This system does not however, provide the adequate number of teaching staff in the different departments and in VTH.

In the majority of Departments within the Establishment, the number of academic staff is insufficient to adequately service the practical and theoretical teaching load. This is even more severe when considering the increasing number of students due to the presence of horizontal transmission. The number of technical and support staff is deficient in the majority of the departments and in the VTH.

#### **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 teaching staff recruiting process involves the representatives of the Departments, who prepare the needs of the establishment annually, the Dean, the Rectorate and the YÖK. Once the YÖK establishes the final decision on the proportion of positions to be created, a public procedure is developed to finally recruit the teachers. Revision of the allocation and promoting of teaching staff is not clearly defined nor performed.

The assessment of teaching staff has been done by the use of questionnaires after 2018. The Quality Board of the establishment is monitoring the results and updating the questionnaire. Actual evaluation results will be reached in 2019, but at the moment of visitation, there were no data nor analyses available.

Also, in 2019, a student board has been created, which is aimed to convey the opinions of the students to the quality board.

Support staff recruitment depends upon the Ministry of Treasury and biosecurity training is provided by the Establishment.

The involvement of staff, students and stakeholders in the process of allocating, promoting and

recruiting teaching and support staff is minimal. Some teaching staff are involved in these processes to a limited extent.

## **9.2. Comments**

- Regarding teaching staff, qualification status is adequate, as all the permanent staff have to have a PhD; also, motivation is elevated. The majority of teaching staff are veterinary graduates. Despite the high number of teaching hours that they have to teach, they are proactive and motivated within teaching and research activity. Considering the fact that support staff is absent in several places at the Establishment, teachers and students have to undertake the tasks of support and technical staff, which even further increases their time pressures.
- Training for academic staff in e-learning, pedagogics/good teaching practice, biosafety and QA should be increased and regulated by the Establishment. Assessment of the teaching staff should be analysed and conclusions coming from such analyses should have an impact over the teaching staff.
- The number of academic staff is insufficient in the majority of the Departments and disciplines.
- A strategy for recruiting, allocating, promoting, supporting and assessing technical and administrative staff is urgently needed, and is the major priority in contrast to further academic staff recruitment.
- The academic staff consists of no European nor American boarded specialists.

## **9.3. Suggestions for improvement**

- Teaching staff: an increase in the number of academic staff in specific clinical disciplines such as anaesthesiology, analgesia, clinical pathology, and diagnostic imaging.
- Based on the modern trends of veterinary medicine, it is imperative to devise a strategic plan for future recruitment of European or American boarded specialists in several clinical or preclinical disciplines.
- The number of teaching hours per teacher is higher than desirable, since teachers have limited time to do research or clinical activities.
- Even though the academic qualification is adequate, in the preclinical and clinical disciplines, internationalization of the teaching staff is needed. Teaching staff should be connected with the international community of their specialities, attending international congresses, etc. Likewise, training in pedagogics/good teaching procedures, e-learning, biosafety and QA should be introduced.
- The absence of support and technical staff in several departments as well as in the Hospital is of serious concern which affects the functionality and quality of the services provided. The establishment should make every effort to increase the number of qualified support staff and to maintain their motivation.

## **9.4. Decision**

The Establishment is compliant with Standard 9, except for Substandard 9.2:

The Establishment is not compliant with Substandard 9.2 because of insufficient numbers of support and technical staff in the majority of the Departments and particularly in the VTH.

## **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**

The Establishment is active in research as documented by approximately (reported in SER and in further evidence submitted to the visitation team) 70 national and international publications with peer review in 2018. In 2016, 2017 and 2018, 11, 16 and 26 students were registered for a PhD and 139, 162 and 173 students were registered for MSc studies. Current status during the visitation was 46 PhD students and 182 Master students. Some Departments cannot register PhD students due to a National requirement for critical teaching personnel at training sites, but they can join with other Departments in cross-disciplinary PhD programmes.

External funding for research is dominated by a large regional animal husbandry project, and in total only three external funded projects are listed in the SER. The animal husbandry project is long- running aiming at regional development, and it gives the Establishment a continuous research base. Researchers can apply for grants from regional and national funding sources, and members of academic staff can apply for small grant from the University. All students carry out a Graduation project (theoretical) on the 10<sup>th</sup> semester. The project is defended at a seminar in the final year. It is possible for students to be associated to research projects during their training, and they can be given leave from their studies to do so. The curriculum contains evidence for training in searching for scientific information and evidence-based medicine.

#### **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**

Knowledge from research is transferred directly to undergraduate training courses, clinical training and elective courses. Undergraduate students are regularly invited to attend scientific meeting and seminars for post graduate students, and they can participate on a voluntary basis in research project carried out by post graduate students.

#### **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**

The Establishment aims to have an impact in society and offers continuous education courses, training courses and workshops for farmers and publish brief letters for communication of best practices. The SER lists continuous education courses in Experimental animal use in science with an average of 44 participants the last three years and a course in Food Safety management systems (2016 only).

### **10.2. Comments**

- The Establishment has proven research activity over a broad range of topics; however, considering the number of staff, students and master students, the output from research in terms of publications is rather low.
- The curriculum ensures training of students in scientific methods and principles of evidence-based medicine.
- The Establishment provides postgraduate programmes; however, no residencies are offered. There are no apparent conflicts between training of undergraduate and post graduate students, but in some disciplines the team observed a very high teaching load due to running of undergraduate and post-graduate training-courses in parallel.

### **10.3. Suggestions for improvement**

The Establishment should reduce the number of teaching hours per staff member in order to increase the time for research.

### **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;
- ) operates *ad hoc*, cyclical, sustainable and transparent outcome assessment, QA and quality enhancement mechanisms;
- ) collect, analyse and use relevant information from internal and external sources for the effective management of their programmes and activities (*teaching, research, services*);
- ) informs regularly staff, students and stakeholders and involves them in the QA processes;
- ) closes the loop of the QA Plan-Do-Check-Act (PDCA) cycle;
- ) is compliant with ESG Standards.

After the Higher Education Quality Assurance Regulation was published in the official gazette in 2015, MAKU-VET (decision 340/24 - 18/12/2018) established an Academic Unit Quality Assurance Commission which has started the internal evaluation studies and has prepared an internal evaluation report.

The Faculty management has carried out intensive studies in the last four years in order to establish a quality culture and continued enhancement of quality in MAKU-VET. For this purpose, various commissions (education teaching commission, strategic planning commission, quality assurance commission, national and international accreditation commissions) have been established with some overlapping/redundant tasks.

All the main phases of the PDCA cycle for education, research, administrative and publicity topics should be monitored by the QA Commission. The planning issues are discussed and evaluated by the relevant commissions (Strategic Plan Commission, Student Board, Education and Teaching Commission) where student representatives are present. The prepared report is then sent to the dean's office to be discussed in the Faculty Board. Approved reports are sent to the department.

QA Commission is responsible to analyse all relevant data for the QA procedures (key performers indicators, student progression, student success and drop-out, career path of graduates,). Spotted internal surveys (satisfaction surveys), completed by students, academic and support staff and external stakeholders, including alumni are performed by single departments. However, available data have not been submitted to adequate analysis. The MAKU QA central Commission is planning to make mandatory the student's opinion survey so that sufficient data will available for specific analysis.

Although some opportunities for innovation of teaching methods and in the use of new technologies are present at the establishment (studies on e-learning, educational films),

MAKU-VET is not regularly evaluating and adjusting the modes of programmes delivery and pedagogical methods.

As a result of the application of the national accreditation system, in 2018 MAKU-VET received from VEDEK a conditional accreditation certificate for 2 years. The main reasons for the conditional accreditation are:

- Inadequate support staff
- Absence of some Departments (Genetics, Biostatistics, Veterinary Public Health).
- Inadequate funding for post-graduate theses
- It has been proposed to take the necessary steps for the self-efficacy and sustainability of VTH and its affiliated laboratories
- Disruptions in the regular and standardized provision of repairs, alterations and services due to the size of the faculty building and VTH
- It was suggested that the physical conditions of the necropsy hall should be improved for student applications
- Absence of a Pharmacy
- Some students and staff do not have identity cards in VTH
- The number of students admitted to the courses in summer school applications is more than the faculty quota
- More students attending practical courses due to the increase in the number of students coming by horizontal transfer
- Student advisors cannot effectively manage the length of time set aside for meeting up with students.
- Absence of logbook tracking cards and records
- Inadequate level of participation of students in research and project activities
- Insufficient equipment of the Department of Food Hygiene and Technology
- Absence a Farm
- Inadequacies in operating instructions for devices in laboratories
- Absence of sufficient seating chairs in student resting areas
- Equipment deficiencies in the mobile clinic
- Low level of student satisfaction with canteen services
- It has been proposed to establish a more effective system of communication with alumni
- Inadequate involvement of students in decision-making processes on issues of interest to them
- Inadequate surveys.

#### **11.1.2. Brief description of the specific QA processes for each ESEVT Standards**

The Academic Unit Quality Commission has examined the strategic plan while preparing the internal evaluation report and held discussions with the strategic plan commission on the plan. The Quality Commission undertook the responsibility of revising the strategic plan in line with the quality assurance system.

The realization of the objectives stated in the strategic plan is based on the performance indicators of the Faculty of Veterinary Medicine in the annual internal evaluation reports prepared by Burdur Mehmet Akif Ersoy University Quality Commission (<https://veteriner.mehmetakif.edu.tr/form/513/645/planlar-ve-raporlar>). However, the report is mainly prepared by the executive board and not with the contributions of all academics,

students and administrative staff.

Achievement of the objectives of the institution is evaluated by the annual reports prepared by the Strategic Plan Commission and Quality Commission of the MAKU-VET.

In the QA system there is no effective monitoring of several teaching activities such as the identification and communication (all teachers should communicate the expected learning outcomes during the first lecture in a consistent way) of expected learning outcomes and the coordination of the content of culturally related courses.

### **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**

Since its recent implementation, the QA strategy of MAKU-VET has not yet been revised. Although a student is present in the QA Commission, staff, students and stakeholders are not adequately involved in the development, implementation and assessment of QA system.

### **11.2. Comments**

- The implementation of a QA system for MAKU-VET has been slow due to an insufficient analysis of the current situation, by the ignorance on the benefit of its application to institutional activities and by the resistance to change by the staff.
- The QA system at MAKU-VET is just at a starting point and many activities are in the planning phase or just instigated. In particular, although relevant data such as those regarding student progression are available, adequate analysis of these data has not yet occurred. Insufficiency in such analysis is impairing the implementation of the PDCA cycle.
- There are several overlapping/redundant tasks and activities between QA Commission and other Commissions, in particular with the Educational Teaching Commission.

### **11.3. Suggestions for improvement**

- The visitation team invite MAKU-VET to revise the tasks of the different Commissions to overcome most of the overlaps in their functions.
- To encourage MAKU-VET to increase the number of students that are involved in student's opinion survey. One of the most effective way to achieve this goal is make the students aware that their opinions are evaluated and used to tackle and possibly to solve critical points.

### **11.4. Decision**

The Establishment is compliant with Standard 11, except for Substandards 11.1, 11.7 and 11.9:

- The Establishment is not compliant with Substandard 11.1 because of insufficient implementation of realistic implementation of QA policy through appropriate processes.
- The Establishment is not compliant with Substandard 11.7 because of insufficiency in the systematic analysis and use of relevant information for the effective management of the programme and related activities.
- The Establishment is not compliant with Substandard 11.9 because of insufficiency with an effective monitoring and consequently reviewing system of undergraduate MV program and related activities.

**12. ESEVT Indicators**

	<b>Raw data from the last 3 full academic years</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>Mean</b>
<b>1</b>	n° of FTE academic staff involved in veterinary training	93	89	83	88,33
<b>2</b>	n° of undergraduate students	717	677	633	675,67
<b>3</b>	n° of FTE veterinarians involved in veterinary training	93	89	83	88,33
<b>4</b>	n° of students graduating annually	153	87	88	109,33
<b>5</b>	n° of FTE support staff involved in veterinary training	32	32	31	31,66
<b>6</b>	n° of hours of practical (non-clinical) training	1264	1264	1264	1264
<b>7</b>	n° of hours of clinical training	928	928	928	928
<b>8</b>	n° of hours of FSQ & VPH training	337	337	337	337
<b>9</b>	n° of hours of extra-mural practical training in FSQ & VPH	80	80	80	80
<b>10</b>	n° of companion animal patients seen intra-murally	2552	2551	1867	2323,33
<b>11</b>	n° of ruminant and pig patients seen intra-murally	1058	1137	899	1031,33
<b>12</b>	n° of equine patients seen intra-murally	29	14	11	18
<b>13</b>	n° of rabbit, rodent, bird and exotic patients seen intra-murally	101	79	106	95,3
<b>14</b>	n° of companion animal patients seen extramurally	0	1	5	2
<b>15</b>	n° of individual ruminants and pig patients seen extra-murally	87	475	392	318
<b>16</b>	n° of equine patients seen extramurally	0	3	2	1,7
<b>17</b>	n° of visits to ruminant and pig herds	16	28	16	20
<b>18</b>	n° of visits of poultry and farmed rabbit units	1	2	2	1,3
<b>19</b>	n° of companion animal necropsies	120	105	79	101,3
<b>20</b>	n° of ruminant and pig necropsies	197	185	163	181,7
<b>21</b>	n° of equine necropsies	0	3	0	1,0
<b>22</b>	n° of rabbit, rodent, bird and exotic pet necropsies	255	348	79	227,3
<b>23</b>	n° of FTE specialized veterinarians involved in veterinary training	87	81	80	82,7
<b>24</b>	n° of PhD graduating annually	3	1	0	2,0

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	<b>Calculated Indicators from raw data</b>	<b>MAKU-VET Values</b>	<b>Median Values</b>	<b>Minimal Values</b>	<b>Balance</b>
<b>I1</b>	n° FTE academic staff involved in veterinary training / n° undergraduate students	0,131	0,16	0,13	0,005
<b>I2</b>	n° FTE veterinarians involved in veterinary training / n° students graduating annually	0,808	0,87	0,59	0,218
<b>I3</b>	n° FTE support staff involved in veterinary training / n° students graduating annually	0,290	0,94	0,57	-0,277
<b>I4</b>	n° hours of practical (non-clinical) training	1264,000	905,67	595,00	669,000
<b>I5</b>	n° hours of clinical training	928,000	932,92	670,00	258,000
<b>I6</b>	n° hours of FSQ & VPH training	337,000	287,00	174,40	162,600
<b>I7</b>	n° hours of extra-mural practical training in FSQ & VPH	80,000	68,00	28,80	51,200
<b>I8</b>	n° companion animal patients seen intra-murally / n° students graduating annually	21,250	70,48	42,01	-20,759
<b>I9</b>	n° ruminant and pig patients seen intra-murally / n° students graduating annually	9,433	2,69	0,46	8,969
<b>I10</b>	n° equine patients seen intra-murally / n° students graduating annually	0,165	5,05	1,30	-1,133
<b>I11</b>	n° rabbit, rodent, bird and exotic seen intra-murally / n° students graduating annually	0,872	3,35	1,55	-0,673
<b>I12</b>	n° companion animal patients seen extra-murally / n° students graduating annually	0,018	6,80	0,22	-0,205
<b>I13</b>	n° individual ruminants and pig patients seen extra-murally / n° students graduating annually	2,909	15,95	6,29	--3,386
<b>I14</b>	n° equine patients seen extra-murally / n° students graduating annually	0,015	2,11	0,60	-0,580
<b>I15</b>	n° visits to ruminant and pig herds / n° students graduating annually	0,183	1,33	0,55	-0,364
<b>I16</b>	n° visits of poultry and farmed rabbit units / n° students graduating annually	0,015	0,12	0,04	-0,029
<b>I17</b>	n° companion animal necropsies / n° students graduating annually	0,927	2,07	1,40	-0,473
<b>I18</b>	n° ruminant and pig necropsies / n° students graduating annually	1,662	2,32	0,97	0,691
<b>I19</b>	n° equine necropsies / n° students graduating annually	0,009	0,30	0,09	-0,084
<b>I20</b>	n° rabbit, rodent, bird and exotic pet necropsies / n° students graduating annually	2,079	2,05	0,69	1,387
<b>I21</b>	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,756	0,20	0,06	0,693
<b>I22</b>	n° of PhD graduating annually / n° of students graduating annually	0,018	0,15	0,09	-0,070

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

<b>Standard 1: Objectives and Organisation</b>	<b>C</b>	<b>PC</b>	<b>NC</b>
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	
<b>Standard 2: Finances</b>			
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		
<b>Standard 3: Curriculum</b>			
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 ongoing 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		
<b>Standard 4: Facilities and equipment</b>			

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4.1. All aspects of the physical facilities must provide an environment conducive to learning.	X		
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		
<b>Standard 5: Animal resources and teaching material of animal origin</b>			
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
<b>Standard 6: Learning resources</b>			
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		

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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		
<b>Standard 7: Student admission, progression and welfare</b>			
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. Not applicable.	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		
<b>Standard 8: Student assessment</b>			
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
<b>Standard 9: Academic and support staff</b>			
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		

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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		
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		
<b>Standard 10: Research programmes, continuing and postgraduate education</b>			
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		
<b>Standard 11: Outcome Assessment and Quality Assurance</b>			
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**

Mehmet Akif Ersoy University was founded in March 2006 in Burdur as a State University. The university has 11 faculties and over thirty thousand students, making Burdur very much an “Academic City”! The Faculty of Veterinary Medicine (MAKU-VET) is one of the two core faculties (together with the Faculty of Education) from the foundation of the university.

An important development is that MAKU was selected as a pilot university in the field of “Husbandry” within the scope of the project “Mission Differentiation and Specialization of Universities with Regional Development Focus” coordinated by the Turkish Council of Higher Education (YÖK).

MAKU-VET completed the national accreditation (VEDEK-Association for Evaluation and Accreditation of Educational Institutions and Programmes of Veterinary Medicine in Turkey) visit between 5-9 November 2018 receiving “conditional accreditation” for 2 years.

MAKU-VET has never previously undergone an Evaluation of Veterinary Training (ESEVT) visitation.

The main purpose of MAKU-V in requesting an ESEVT visit was to have some guidance in completing and structuring its premises and curriculum in the most logical and efficient way.

The SER was provided on time and written in full agreement with the SOP 2016. There was some absence of cohesiveness between the chapters covering the 11 Standards, resulting in rather a long list to of questions which was sent to the Establishment prior to the Visitation; however, the Establishment did an excellent job in providing the Team with timely and relevant answers.

The Visitation was very well organised and the Liaison Officer, the Dean and his Vice-deans worked well together to develop the schedule of the Visitation.

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

- Log book online system to monitor and control preclinical and clinical skills
- The link between the faculty and the field practitioners and other external stakeholders
- The mobile clinic (variety of cases, well maintained for multitasks)
- Buildings and facilities for AI
- Husbandry Project
- Interpersonal relationships (especially teacher-student relationships)
- Although staff have heavy teaching loads, they are very dedicated to their teaching
- Sport and social facilities
- Library
- Enthusiastic support from the Rectorate
- Opportunities for the students to undertake research projects
- MAKUVET has a reputation for its case load and practical teaching
- Commendable involvement of staff in the Master courses

Additional commendations are given in the Visitation Report.

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

1. Partial compliance with Substandard 1.5 because of insufficiency in students’ contribution for the development of the strategic plan;

2. Partial compliance with Substandard 1.6 because of insufficient and unambiguous clear indicators for the monitoring of strategic objectives;
3. Partial compliance with Substandard 4.3 because the increasing number of admitted students decreases the quality of practical teaching delivery and insufficiency of management and administration of medical equipment (including consumables such as blood sampling, bandaging, intravenous catheterization and other equipment). The isolation facilities, consultation rooms and wards for hospitalized companion animals are often not adequately equipped to fulfil their routine use. Adequacy of the isolation facilities is not achieved due to structural deficiencies and maintenance issues.
4. Partial compliance with Substandard 4.6 because of inadequacy of radioprotection policies and procedures and radio-safety measurements of the radiology room (e.g. inadequate door radio safety);
5. Partial compliance with Substandard 6.2 because of an insufficient e-learning platform.

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

1. Non-compliance with Substandard 3.3 because there is no alignment, coherence or organisation of learning outcomes and there is no interdepartmental collaboration in regard to the learning outcomes for each subject.
2. Non-compliance with Substandard 3.4 because there are insufficient regular methods developed for the revision of the curriculum and no structured and compulsory plan for lifelong staff training implemented by the Establishment.
3. Non-compliance with Substandard 3.5 because of:
  - An absence of realistic QA procedures for monitoring and overseeing the curriculum.
  - An insufficiency in formal correlation analysis between Day One Competences and programme learning outcomes available in the submitted documentation that would prove that professional Day One Competences have been attained by each student within the core curriculum
  - Hands-on clinical skill performance by each individual student is not guaranteed as the logbook completion is based mostly on group observation of a clinical skill demonstration.
  - Professional knowledge (i.e. communication skills) does not completely fulfil the Day One Competences
  - Structured and species-based practical teaching of clinical subjects like propaedeutics, clinical pathology, anaesthesiology and analgesia, and diagnostic imaging is not adequately delivered.
  - Multiple overlapping within the curriculum. The link between basic sciences and food producing animal clinical sciences, is weak due mainly to the absence of an interdisciplinary approach.
4. Non-compliance with Substandard 4.7 because the biosecurity procedures are deficient in several departments such as in anatomy and because of insufficient biosafety/biosecurity within some areas of the VTH (biosecurity signals, publicly available SOPs, radioprotection, cleansing, management of chemical substances and control drug policies) and necropsy room (cleansing, formalin storage).

5. Non-compliance with Substandard 4.12 because of deficient biosecurity, radioprotection and drug regulation procedures in several departments and in the VTH.
6. Non-compliance with Substandard 4.13 because of inadequacy of the isolation facilities due to construction deficiencies, ventilation and maintenance issues (i.e. roof, floor) as well as inadequate medical equipment availability (i.e. disposable material, kennels).
7. Non-compliance with Substandard 5.1 because of an inadequate number and variety of healthy and diseased animals and cadavers, below the ESEVT Indicators.
8. Non-compliance with Substandard 5.2 because of an insufficient diversity in cases and also quantitatively in certain species (equine, exotic animal).
9. Non-compliance with Substandard 5.5 because students are not actively participating in the workup for patients (from history to clinical decision-making and clinical procedures).
10. Non-compliance with Substandard 5.6 because of the absence of an efficient and comprehensive system to retrieve patient recording resulting in insufficient statistical analysis to support teaching, research and the QA process.
11. Non-compliance with Substandard 8.5 because of insufficiency in the systematic monitoring and revision of students' assessment strategy.
12. Non-compliance with Substandard 8.9 because of insufficiency in a reliable assessment and quality control for the Day One Competences, particularly those related to hands-on training.
13. Non-compliance with Substandard 9.2 because of insufficient numbers of support and technical staff in the majority of the Departments and particularly in the VTH.
14. Non-compliance with Substandard 11.1 because of insufficient implementation of QA policy through appropriate processes.
15. Non-compliance with Substandard 11.7 because of insufficiency in the systematic analysis and use of relevant information for the effective management of the programme and related activities.
16. Non-compliance with Substandard 11.9 because of insufficiency with an effective monitoring and consequently reviewing system of undergraduate MV program and related activities.

## **Glossary**

*(Please use the same terminology and abbreviations as in the ESEVT SOP when possible)*

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

FSQ: 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 as a whole, either a university, faculty, school, department, institute;

Ambulatory clinic: clinical training done extra-murally 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 extra-murally 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 3.3 because there is no alignment, coherence or organisation of learning outcomes and there is no interdepartmental collaboration in regard to the learning outcomes for each subject.
2. Non-compliance with Substandard 3.4 because there are insufficient regular methods developed for the revision of the curriculum and no structured and compulsory plan for lifelong staff training implemented by the Establishment.
3. Non-compliance with Substandard 3.5 because of:
  - An absence of realistic QA procedures for monitoring and overseeing the curriculum.
  - An insufficiency in formal correlation analysis between Day One Competences and programme learning outcomes available in the submitted documentation that would prove that professional Day One Competences have been attained by each student within the core curriculum
  - Hands-on clinical skill performance by each individual student is not guaranteed as the logbook completion is based mostly on group observation of a clinical skill demonstration.
  - Professional knowledge (i.e. communication skills) does not completely fulfil the Day One Competences
  - Structured and species-based practical teaching of clinical subjects like propaedeutics, clinical pathology, anaesthesiology and analgesia, and diagnostic imaging is not adequately delivered.
  - Multiple overlapping within the curriculum. The link between basic sciences and food producing animal clinical sciences, is weak due mainly to the absence of an interdisciplinary approach.
4. Non-compliance with Substandard 4.7 because the biosecurity procedures are deficient in several departments such as in anatomy and because of insufficient biosafety/biosecurity within some areas of the VTH (biosecurity signals, publicly available SOPs, radioprotection, cleansing, management of chemical substances and control drug policies) and necropsy room (cleansing, formalin storage).
5. Non-compliance with Substandard 4.12 because of deficient biosecurity, radioprotection and drug regulation procedures in several departments and in the VTH.
6. Non-compliance with Substandard 4.13 because of inadequacy of the isolation facilities due to construction deficiencies, ventilation and maintenance issues (i.e. roof, floor) as well as inadequate medical equipment availability (i.e. disposable material, kennels).
7. Non-compliance with Substandard 5.1 because of an inadequate number and variety of healthy and diseased animals and cadavers, below the ESEVT Indicators.
8. Non-compliance with Substandard 5.2 because of an insufficient diversity in cases and also quantitatively in certain species (equine, exotic animal).
9. Non-compliance with Substandard 5.5 because students are not actively participating in the workup for patients (from history to clinical decision-making and clinical procedures).

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10. Non-compliance with Substandard 5.6 because of the absence of an efficient and comprehensive system to retrieve patient recording resulting in insufficient statistical analysis to support teaching, research and the QA process.
11. Non-compliance with Substandard 8.5 because of insufficiency in the systematic monitoring and revision of students' assessment strategy.
12. Non-compliance with Substandard 8.9 because of insufficiency in a reliable assessment and quality control for the Day One Competences, particularly those related to hands-on training.
13. Non-compliance with Substandard 9.2 because of insufficient numbers of support and technical staff in the majority of the Departments and particularly in the VTH.
14. Non-compliance with Substandard 11.1 because of insufficient implementation of QA policy through appropriate processes.
15. Non-compliance with Substandard 11.7 because of insufficiency in the systematic analysis and use of relevant information for the effective management of the programme and related activities.
16. Non-compliance with Substandard 11.9 because of insufficiency with an effective monitoring and consequently reviewing system of undergraduate MV program and related activities.

The Faculty of Veterinary Medicine, Burdur Mehmet Akif Ersoy University is therefore classified as holding the status of: **NON-ACCREDITATION**.