FINAL REPORT AS ISSUED BY ECOVE ON 13 DECEMBER 2022

European Association
of Establishments for Veterinary Education

RE-VISITATION REPORT

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

On 24 – 27 October 2022

By the Re-visitation Team:

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Contents of the Re-visitation Report

Introduction

The Faculty of Veterinary Medicine of Bursa Uludag University (FVMB) in Turkey (called the Veterinary Education Establishment (VEE) in this Report) was first evaluated in November 2004 by a team of ESEVT experts. As a result of their report, ECOVE promulgated a number of both major and minor deficiencies. A Re-visitation (RV) was undertaken in 2008 and the VEE gained Conditional Approval Status with Approved Status obtained after a further evaluation in 2010.

The most recent ESEVT Full Visitation took place in February 2020, followed by a decision by ECOVE of a status of Non-Accreditation due to the following Major Deficiencies.

Major Deficiencies

1. Non-compliance with Substandard 4.7 because of insufficient promotion of welfare and management practices in livestock facilities;

2. Non-compliance with Sustandards 4.12 and 4.13 because of inadequate teaching and display of biosecurity rules for students, staff and visitors and because of inappropriate isolation facilities for large animals;

3. Non-compliance with Substandard 5.2 because the students' clinical educational experience and hands-on training in equine is not sufficient.

In addition, the final report from ECOVE listed a number of areas of concern (i.e. Minor Deficiencies).

Minor Deficiencies

1. Partial compliance with Substandard 3.5 because of suboptimal balance between mandatory and elective subjects in diagnostic imaging, equine clinical sciences and food hygiene and sub-optimal compensation for the insufficient clinical training in pigs;

2. Partially compliance with Substandard 5.1 because the number of pigs and diseased equine is low;

3. Partial compliance with Substandard 5.3 because EU Regulations about GMP/GHP and HACCP rules (EU Reg 852/2004 and 853/2004) are not fully observed in the external slaughterhouse, so

providing a suboptimal environment for students' visits;

4. Partial compliance with Substandards 8.5, 8.6 and 8.9 because of suboptimal assessment of learning outcomes.

However, the ESEVT team also identified some aspects as worthy of praise. These included:

- physical and information technology infrastructure for learning and training
- the commitment of academic staff to teaching activities
- sufficient research and teaching support
- access to meat-producing animals
- dedicated staff.

The ESEVT SOP 2016 is valid for this Re-visitation.

1. Correction of the Major Deficiencies

1.1. Major Deficiency 1

Non-compliance with Substandard 4.7 because of insufficient promotion of welfare and management practices in livestock facilities.

1.1.1. Findings

- Facilities at the Veterinary Teaching Hospital (VTH) and Veterinary Teaching Farm (VTF) have been improved to be compliant with modern standards of welfare, safety and biosecurity.
- Improved animal husbandry has been implemented and designed to guarantee animal welfare according to EU legislation.
- The main updates concern facilities and management of livestock, such as:
    a. The horse isolation unit is now equipped with a changing room, lavatories and an autonomous ventilation system
    b. The floor of the horse isolation unit has been renovated with a more suitable rubber and easily cleaned material
    c. Laying hens and chickens kept for meat production are now reared in a lower stocking density, respecting the number of chickens indicated in the EU directives. In addition, they are actively moving towards a "free range" system
    d. The floor of the infirmary area of VTF has been renewed.
    e. Cattle facilities are now more regularly cleaned
    f. The RV Team were able to confirm that regular foot care and revision of feed rations has reduced the incidence of laminitis within the cow population
    g. The RV Team were able to assess the student participation in the evaluation of animal health and welfare at the VTF under the direct supervision of the teaching staff.

1.1.2. Comments

- A small external area has now been fenced off for the cows that are used within the VTH.

- The RV Team were impressed by the dedication and participation of the staff and students in improving animal welfare at the VEE.
- After the suggestion by the Full Visitation team in 2020 on student participation, the current RV Team were pleased to note an increase in student participation in many of the VEE's committees, especially those involving animal welfare.

1.1.3. Suggestions

Enlarge the newly built area for the VTH cows.

1.1.4. Decision

Major Deficiency 1 has been fully corrected.

2.1. Major Deficiency 2

Non-compliance with Substandards 4.12 and 4.13 because of inadequate teaching and display of biosecurity rules for students, staff and visitors and because of inappropriate isolation facilities for large animals.

2.1.1. Findings

- A newly created Biosafety and Biosecurity Manual is now available and published in the VEE (http://www.uludag.edu.tr/veteriner/default/konu/8636). Academic staff, support staff, and students, are now regularly trained on biosecurity procedures twice a year, which is mandatory and involves a check for attendance. Operational procedures and algorithms are clearly displayed for staff and students within the VEE
- Floor marking to separate the different areas of VEE (public access, restricted access and access with special clothing/equipment) has been introduced, as well as an encrypted card system in the surgery section
- Handwashers and sanitizers are present in the VTH and meat processing units.
- The color of protective clothes now differs between staff and students and clear rules exist for their utilization
- Buildings were restored to facilitate the access of disabled staff and students
- The VEE possesses a vehicle to transport large animal material to be used in necropsy. Other animals and material of animal origin are transported by owners.
- The number and size of student groups have been improved
- The isolation facilities for large animals and equines have been greatly improved.

2.1.2. Comments

- The building of the new Anatomy teaching facility is due for completion in February 2023. The RV Team was able to confirm this and also had access to the detailed plans.
- The RV Team were impressed by the ventilation system when using formaldehyde as well as the new rooms for the development of plastination.
- The RV Team was impressed by the development of a means of disposal of waste material from the isolation facilities.
- There is now an excellent manual available both on line and physically and there is clear evidence for the involvement of all departments for its production.

2.1.3. Suggestions
None.

2.1.4. Decision
Major Deficiency 2 has been fully corrected.

3.1. Major Deficiency 3
Non-compliance with Substandard 5.2 because the students' clinical educational experience and hands-on training in equine is not sufficient.

3.1.1. Findings
- The VTH now owns 2 horses which are housed within the VTH and as observed by the team are widely used for the demonstration of non-invasive clinical techniques.
- Additionally, the Mennan Pasinli Vocational School located in the VTF, possesses 12 horses which are regularly used for both preclinical and clinical activities.
- Mandatory clinical training, both intramural and extramural has been increased by Formal Agreements with the Turkey Jockey Club (TJK) and Rahvan Horse Breeding Association. These agreements have markedly increased the caseload for both intra- and extramural activities. For example, there are over 1000 horses available for student clinical activities at the TJK. This activity is shown by the total number of equine patients increasing from less than 50 in 2018/2019 to more than 400 in 2021/2022. This facility was visited by the RV Team which confirmed the extent of the student exposure to both basic and more complicated clinical procedures.
- Students are now actively linked to academic staff in the hands-on clinical training. Three professors (Surgery, Obstetrics and Gynaecology, and Internal Medicine) are now in charge of equine clinical training.
- The RV Team were able to visit all these equine related facilities and were able to witness the direct involvement of students. The Team were also able to inspect the legal documents confirming the long-term agreements with the TJK and Rahvan Horse Breeding Association.

3.1.2. Comments
- There has proved to be a marked increase in the timetabled rotations involving equine clinical work.
- The official agreements with both the TJK and Rahvan Horse Breeding Association has now allowed for long-term clinical teaching in the equine species.
- The interaction between the three newly appointed professors, the equine practitioners and the students has now allowed for a really excellent teaching experience.

3.1.3. Suggestions
None.

3.1.4. Decision
Major Deficiency 3 has been fully corrected.

2. Correction of the Minor Deficiencies

2.1. Minor Deficiency 1

Partial compliance with Substandard 3.5 because of suboptimal balance between mandatory and elective subjects in diagnostic imaging, equine clinical sciences and food hygiene and sub-optimal compensation for the insufficient clinical training in pigs

2.1.1. Findings

- The curriculum has been revised and the following courses are now mandatory:
  - Diagnostic Imaging Techniques (1 ECTS), in the 6th semester.
  - HACCP System (1 ECTS), in the 8th semester
  - Ration Preparation and Management (1 ECTS), in the 7th semester.
- Intramural "hands-on" clinical work is carried out on horses in the VTH and the Mennan Pasinli Vocational School. As mentioned above, extramural clinical activities on horses are carried out within the TJK and Rahvan Horse Breeding Association.
- Considering the ethical and social absence of pig extramural practical exposure, the VEE not only provides a substantial amount of theoretical teaching in pig diseases but has made an effort to increase the number of pigs within the VTF. In addition, the expanse of clinical teaching in both equine and ruminants clearly compensates for the relative lack of clinical teaching in pigs.
- Intramural courses on Food Hygiene and Technology are carried out in the meat and milk processing units of the VEE. In addition, students can practice extramurally in different slaughterhouses (Edemen, Hastavuk and Et-Ba) which now provide exposure to both ruminants and poultry.

2.1.2 Comments

- Subjects in diagnostic imaging and food hygiene are now mandatory and they are well integrated with the elective courses in these topics.
- Clinical rotation and Clinical practice on equines has improved (see paragraph 3.1.1.).

2.1.3. Suggestions

None.

2.2. Minor Deficiency 2

Partially compliance with Substandard 5.1 because the number of pigs and diseased equine is low

2.2.1. Findings

This Minor Deficiency has been fully covered above.

2.2.2. Comments

- As previously reported the number of equine visits has markedly increased.
- Considering that pig farming is almost non-existent in Turkey, the small number of pigs kept at the VTF ensures that the students can see live swine.

2.2.3. Suggestions
None.

2.3. Minor Deficiency 3
Partial compliance with Substandard 5.3 because EU Regulations about GMP/GHP and HACCP rules (EU Reg 852/2004 and 853/2004) are not fully observed in the external slaughterhouse, so providing a suboptimal environment for students' visits

2.3.1. Findings
- New and legally binding agreements have now been made with slaughterhouses that fully comply with GMP/GHP and HACCP rules (EU Reg. 852/2004 and 853/2004).
- These slaughterhouses include Edemen Meat Facilities, Hastavuk and Et-Ba.

2.3.2. Comments
The new agreements has led to an increased number of visits, leading to an improved implementation of students practical work in ruminant and poultry slaughterhouses.

2.3.3. Suggestions
None.

2.4. Minor Deficiency 4
Partial compliance with Substandards 8.5, 8.6 and 8.9 because of suboptimal assessment of learning outcomes.

2.4.1. Findings
- Learning outcomes courses have been updated in the Student Automation System, where students can now access and consult the learning outcomes, especially in relation to their career choices. The relative evaluation system has not been changed, and the grading process for each student continues to be done by taking the average achievement level and standard deviation value criteria of the students in the classroom. It is not possible for the VEE to implement such a change due to university regulations.
- Logbooks are now available on a digital platform. The RV Team were able to consult students and confirm their appreciation of this new digitally available platform.
- New procedures are in place to evaluate both internship and EPT utilising a new booklet system to report on all activities.
- The system of changing assessment looking into student surveys and success levels of courses and views of graduates' and stakeholders' opinions, is now in use. It involves university QA commission, Education and Teaching Commission (E&TC), Faculty Council and University Senate for final approval.

2.4.2. Comments
The setting up in a short period of time of this new learning outcome approach combined with the logbooks within an Information Technology system is commendable.

2.4.3. Suggestions
None.

3. ESEVT Indicators

3.1. Findings
- The VEE has produced both the raw data and the calculated indices.
- It produced these tables utilising the guidelines provided in Annex 10 of the SOP 2016 which it was required to do following an email from the EAEVE office in June 2022.
- When comparing these Indicators to those produced for the previous visitation, it is clear that there has been an improvement in the negative balances.

	RAW DATA	Year -1	Year -2	Year -3	Mean
1	n° of FTE academic staff involved in veterinary training	139	149	166	151,3
2	n° of undergraduate students	969	1040	1024	1011,0
3	n° of FTE veterinarians involved in veterinary training	135	145	162	147,3
4	n° of students graduating annually	112	126	117	118,3
5	n° of FTE support staff involved in veterinary training	74	71	74	73,0
6	n° of hours of practical (non-clinical) training	990	990	990	990,0
7	n° of hours of clinical training	1342	1342	1342	1342,0
8	n° of hours of FSQ & VPH training	640	640	640	640,0
9	n° of hours of extra-mural practical training in FSQ & VPH	188	188	188	188,0
10	n° of companion animal patients seen intra-murally	5695	4170	5148	5004,3
11	n° of ruminant and pig patients seen intra-murally	562	818	130	503,3
12	n° of equine patients seen intra-murally	165	150	151	155,3
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	207	238	263	236,0
14	n° of companion animal patients seen extra-murally	48	12	42	34,0
15	n° of individual ruminants and pig patients seen extra-murally	2855	127	285	1089,0
16	n° of equine patients seen extra-murally	87	61	65	71,0
17	n° of visits to ruminant and pig herds	144	140	106	130,0
18	n° of visits of poultry and farmed rabbit units	8	9	7	8,0
19	n° of companion animal necropsies	262	72	250	194,7
20	n° of ruminant and pig necropsies	165	69	117	117,0
21	n° of equine necropsies	12	11	11	11,3
22	n° of rabbit, rodent, bird and exotic pet necropsies	147	42	80	89,7
23	n° of FTE specialised veterinarians involved in veterinary training	19	32	42	31,0
24	n° of PhD graduating annually	14	11	10	11,7

CALCULATED INDICATORS FROM RAW DATA

	INDICATORS	Establishment values	Median values1	Minimal values[2]	Balance[3]
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0,150	0,16	0,13	0,024
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1,245	0,87	0,59	0,655
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	0,617	0,94	0,57	0,050
I4	n° of hours of practical (non-clinical) training	990,000	905,67	595,00	395,000
I5	n° of hours of clinical training	1342,000	932,92	670,00	672,000
I6	n° of hours of FSQ & VPH training	640,000	287,00	174,40	465,600
I7	n° of hours of extra-mural practical training in FSQ & VPH	188,000	68,00	28,80	159,200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	42,290	70,48	42,01	0,281
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	4,254	2,69	0,46	3,790
I10	n° of equine patients seen intra-murally / n° of students graduating annually	1,313	5,05	1,30	0,015
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	1,994	3,35	1,55	0,449
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0,287	6,80	0,22	0,064
I13	n° of individual ruminants and pig patients seen ext- ra-murally / n° of students graduating annually	9,203	15,95	6,29	2,908
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0,600	2,11	0,60	0,005
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	1,099	1,33	0,55	0,551
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0,068	0,12	0,04	0,023
I17	n° of companion animal necropsies / n° of students graduating annually	1,645	2,07	1,40	0,245
I18	n° of ruminant and pig necropsies / n° of students graduating annually	0,989	2,32	0,97	0,018
I19	n° of equine necropsies / n° of students graduating annually	0,096	0,30	0,09	0,003
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	0,758	2,05	0,69	0,065
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0,262	0,20	0,06	0,199
I22*	n° of PhD graduating annually / n° of students graduating annually	0,099	0,15	0,09	0,011

3.2. Comments

- The VEE has introduced several changes to permanently correct the Major as well as the Minor Deficiencies.
- The increased number of equine patients and necropsies, as a consequence of the correction of some Major and Minor deficiencies, led all the related indicators to be above the minimal value.

3.3. Suggestions

None.

4. Conclusions

The three Major Deficiencies identified by ECOVE in 2020 have now been fully corrected. In addition, the four Minor Deficiencies identified by ECOVE in 2020 have also been attended to.

Decision of ECOVE

The Committee concluded that the Major Deficiencies identified after the full Visitation on 24 – 28 February 2020 had been corrected.

The Veterinary Education Establishment (VEE) of the Bursa Uludag University is therefore classified as holding the status of: **ACCREDITATION**.