



**FACULTY OF VETERINARY MEDICINE
TRAKIA UNIVERSITY - STARA ZAGORA**

SELF-EVALUATION REPORT

EAEVE VISITATION 2019





**FACULTY OF VETERINARY MEDICINE
STARA ZAGORA, BULGARIA**

SELF EVALUATION REPORT

2019

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INTRODUCTION

The history of training of undergraduate students in the veterinary medicine major in the Republic of Bulgaria generally coincides with the development of the Faculty of Veterinary Medicine founded in 1923, whose successor, the FVMSZ, is nowadays part of the Trakia University in Stara Zagora.

May 11, 1923 is the birthday of the FVMSZ, the day when the first regular Faculty Council of the newly founded Faculty of Veterinary Medicine to the Sofia University was convened. Afterwards the prolonged and complicated process of construction of the main structural units and training start has begun.

The first professors were foreign citizens, mainly from Germany, and Bulgarian graduates of the higher veterinary schools in Berlin, Vienna, Lyon and Torino. The first curriculum was approved on 12 January 1924 and it included 40 courses with specific number of theoretical and practical hours for respective semesters. The period between 1930-1937 has marked the construction of faculty's training and clinical premises.

After the end of the World War II, the FVMSZ became a part of the newly founded Agricultural Academy in line of restructuring of Bulgarian higher education. The reorganisation was related to the introduction of new principles of academic life on the basis of the experience of the Soviet Union, which has been accepted uncritically and unconditionally.

From 1953 to 1972 the FVMSZ was an independent educational establishment, called Higher Institute of Veterinary Medicine. During that period, the HIVM was a renowned educational establishment with increasing educational and research reputation in the country and in the framework of Warsaw Pact countries.

During the 1970s, a number of erroneous decisions of the government stopped the ascending development of the faculty. Thus, in 1974, the FVMSZ was relocated in Stara Zagora and with the Faculty of Zootechnics, entered into the newly created Higher Institute of Zootechnics and Veterinary Medicine. The relocation to Stara Zagora took almost 5 years from 1974 to 1979 and was accompanied with exceptional material and moral-ethical challenges.

In Stara Zagora, a new base for the faculty was constructed. It included 18 departments and five specialised clinics. Yet, the FVMSZ development was far behind the best European models.

In 1995, the FVMSZ became part of the Trakia University (TrU) – an autonomous state educational establishment settled in Stara Zagora with a decision of the 37th National Assembly on 21 July 1995.

Now, the FVMSZ is a main unit within the TrU structure, training undergraduate, PhD and postgraduate students in veterinary medicine. Graduates receive a Master's educational degree and professional qualification „veterinary surgeon”. They are eligible to continue their education for obtaining the academic and research doctoral degree, as well as to specialise in a chosen field of clinical veterinary medicine, animal foodstuffs control, veterinary administration, ecology and environmental control.

MISSION STATEMENT

The primary socially significant mission of the Faculty of Veterinary Medicine is to provide basic knowledge and create the proper conditions for the acquisition of skills in all main aspects of the veterinary vocation, as well as to ensure the professional growth of residents and PhD students in the different fields of veterinary medicine. Through the

professional development of its graduates, the FVMSZ is called upon to contribute towards improving the quality of life of the people in the Republic of Bulgaria, as well as other peoples.

Throughout its historical development, the FVMSZ has always aimed to be among the top educational and scientific research institutions of the Republic of Bulgaria. An expression of this intent is the high ratings that the Faculty receives during national accreditation, as well as the leading place it takes in the national rankings of higher education institutions, with regard to the quality of the education process, research and development activities.

Last ESEVT visitation

The Faculty of Veterinary Medicine in Stara Zagora was visited during the period 26–30 October 2009 by a team of experts from ECOVE, in order to acquire approval for stage one of the accreditation procedure. The expert team consisted of 7 members, with Professor Joao Manuel Ribeiro from Portugal as the chairman.

At a meeting, specially organised by ECOVE at EAEVE headquarters in Vienna on 2 and 3 February 2010, the experts announced their final decision of non approval of the Faculty of Veterinary Medicine in Stara Zagora due to four category I deficiencies they had identified:

- 1) Insufficient case load in pig and horse patients;
- 2) Hygienic conditions and student security;
- 3) Animal welfare – inadequate housing of animals, also experimental animals’
- 4) Requirements with respect to basic equipment not met, since for adequate training adequate equipment is needed (ultrasound, equipment for ophthalmology).

The FVMSZ made considerable efforts to rectify the deficiencies, sent interim reports to ECOVE, and ECOVE nominated Prof. Jean-Louis Pellerin and Prof. László Fodor to revisit the Faculty. The revisit took place on the 16th and the 17th April, 2015.

The Committee concluded that the Major Deficiencies identified in 2009 has been rectified. The Faculty of Veterinary Medicine, Stara Zagora is classified after the Re-visit as holding the status APPROVAL.

Currently, the FVMSZ is the only higher education institution in Bulgaria involved in a procedure for evaluation and accreditation on a European level. As a result, the Faculty has shown major progress, the main elements of which include the following:

- A new curriculum was introduced in 2013, in accordance with Directive 2005/36/EC and Directive 2013/55/EU, and in full compliance with the Council of Ministers’ unified state requirements for the acquisition of higher education in the regulated Veterinary medicine vocation (**Appendix 3-1**);
- The syllabi for all current courses were updated, while four new mandatory and two elective courses were introduced into the curriculum of the Veterinary medicine Master’s programme;
- The curricula and syllabi of the two post-graduate Master’s programmes – “Veterinary Administration” and “Sanitary Microbiology and Food Safety” – were accredited by the National Agency for Evaluation and Accreditation (NAEA);
- A new Statute for the organisation, operation and management of the Faculty of Veterinary Medicine was accepted, in accordance with the national changes in legislation (**Appendix 1-2**);
- The university clinical-diagnostic unit (UCDU) was reorganised to fit the needs of clinical education of students, PhD students and specialisants, and it was registered in accordance with Bulgarian veterinary medical legislation;

- The three primary clinics of the FVMSZ were renovated, as well as the associated animal hospitals. Improvements were made in accordance with the prescriptions and for the purpose of providing proper living conditions for the animals with respect for their welfare;

In accordance with the recommendations made by the expert team, the Faculty has built its own Biobase for breeding farm animals, domestic carnivore pets, and laboratory animals designated for educational and research purposes;

Despite the complicated economic situation of the country and the difficulties with financing FVMSZ activities, a significant amount of funds was invested into the Faculty over the last few years for the purpose of improving the present facilities, the educational and non-educational, scientific and diagnostic infrastructure, as well as to improve the conditions for the education of students and residents;

In accordance with the submitted recommendations and remarks, the FVMSZ has taken a major step towards ensuring the biosecurity of students throughout the education process, as well as towards improving the practices for maintaining the system, which ensures the welfare and humane treatment of animals.

This self-evaluation report was written following the instructions presented in 'Uppsala' SOP May 2016

1. OBJECTIVES AND ORGANISATION

1.1. FACTUAL INFORMATION

1.1.1. FVMSZ details

The Faculty of Veterinary Medicine (FVMSZ) is one of the six faculties of the Trakia University (TrU) settled in Stara Zagora, Republic of Bulgaria (**Appendix 1-1**). At a national scale, it is one of the two establishments providing training in veterinary medicine, and successor of the original establishment founded in the Sofia University. The FVMSZ has a legal entity status. Its structure, organisation and management are regulated by the Statute of Organisation, Activities and Management adopted by the General Assembly of the Faculty (**Appendix 1-2**).

Official name of the establishment: *Faculty of Veterinary Medicine (FVMSZ)*;

Address:

6000 Stara Zagora
Student Campus
Trakia University
Faculty of Veterinary Medicine

Phone numbers: 042 670 193; fax (042) 670 624; 699 500, 699 505

E-mail: vmfd@uni-sz.bg

Website: <http://uni-sz.bg/truni6/> (in Bulgarian); <http://uni-sz.bg/vmfengl/> (in English)

Faculty authorities

- *Dean:* Prof. MIHNI LYUTSKANOV, DVM, PhD, DSc.
- *Associate Dean - Academic Affairs:* Assoc. Prof. EVGENI SLAVOV, DVM, PhD
- *Associate Dean - Research:* Assoc. Prof. PLAMEN GEORGIEV, DVM, PhD
- *Associate Dean - Clinical Activity, Internships and Practices:* Assoc. Prof. DIAN KANAKOV, DVM, PhD.

Person responsible for the curriculum: Assoc. Prof. EVGENI SLAVOV, DVM, PhD

Persons responsible for professional, ethical and academic affairs of the VHT:

- *Small Animal Clinic:* Assoc. Prof. TSVETAN CHAPRAZOV DVM, PhD.
- *Farm Animal Clinic:* Chief Assist. Prof. ANATOLI ATANASOV DVM, PhD
- *Equine Clinic:* Assoc. Prof. GALINA SIMEONOVA, DVM, PhD

Official authority overseeing the establishment:

MINISTRY OF EDUCATION AND SCIENCE OF THE REPUBLIC OF BULGARIA,
2A Knyaz Dondukov Blvd, 1000 Sofia
<https://www.mon.bg/en/100000>

1.1.2. Strategic plan, mission and objectives

Nowadays, under the conditions of ever-increasing competition, the FVMSZ aims to implement policies strongly focused on accomplishing the following **strategic goals**:

- Establishing FVMSZ as the leading national educational and research centre in the field of veterinary medicine in the Republic of Bulgaria;

- The preparation of highly-trained specialists with higher education (Master and PhD degrees) in accordance with the global trends, EC standards, and the country's needs;
- Providing conditions for the assertive and sustainable usage of state-of-the-art technologies in teaching students, PhD students and specialisants in the professional field of veterinary medicine;
- Solidifying the FVMSZ's position as an educational establishment with leading positions in national ratings and earning the highest possible evaluation score in national accreditations for the professional field of veterinary medicine, as well as the curriculum accreditations of the main and second Master's programmes;
- Striving to earn the highest possible evaluation for the FVMSZ by the European Committee of Veterinary Education (ECOVE);
- Organising and conducting highly-qualified diagnostic, treatment, prevention, consultative, expert, publishing, informational and other types of activity;
- Constant improvement of the system for ensuring and maintaining the quality of education, as well as constant evaluation of the instructors;
- Accomplishing partnership in the field of undergraduate and PhD students' training, developing joint scientific and applied projects, and innovations with other Bulgarian and foreign universities, research institutes, cultural and educational organisations, as well as representatives of NGO's, foundations, etc.

The FVMSZ pursues the following **main objectives** and fulfills the following **functions**:

- Theoretical and practical training of undergraduate students in the veterinary medicine major for acquiring the educational degree „Master“ and professional qualification “Veterinary surgeon”.
- Training of veterinary surgeons with Master's degree in “Veterinary Administration” and “Sanitary Microbiology and Food Safety” Master programmes;
- Training of students with Master's degree for acquiring the academic and research doctoral degree;
- Performing continuing education (life-long learning) for increasing the qualification of veterinary practitioners and other graduate students with higher and secondary special educational degree;
- Performing research in the field of veterinary science, improvement and modernisation of the veterinary practice;
- Performing experimental research, clinical, diagnostic, expert consulting services.

In fulfilling its mission, objectives and functions, the FVMSZ has set long-term and short-term goals, generally aimed at achieving a more advanced training of specialists in line with the current level of knowledge and labour market demands.

1.1.3. Operating plan

Achieving the strategic goals described above at the current stage of development of the FVMSZ is accomplished through specific actions detailed within the *Mandate Programme* of the Dean's team (**Appendix 1-3**). Its concept is founded upon the ideas of a constant and ongoing process of improving the curriculum and syllabi, introducing contemporary information technologies into the study process, renovating the educational, scientific and service facilities, a stronger interconnection between the departments, maintaining the necessary balance between fundamental and applied-science research practices, with all of this being conducted in an atmosphere of greater tolerance, professional ethics, and ensuring the safety and dignity of the individual.

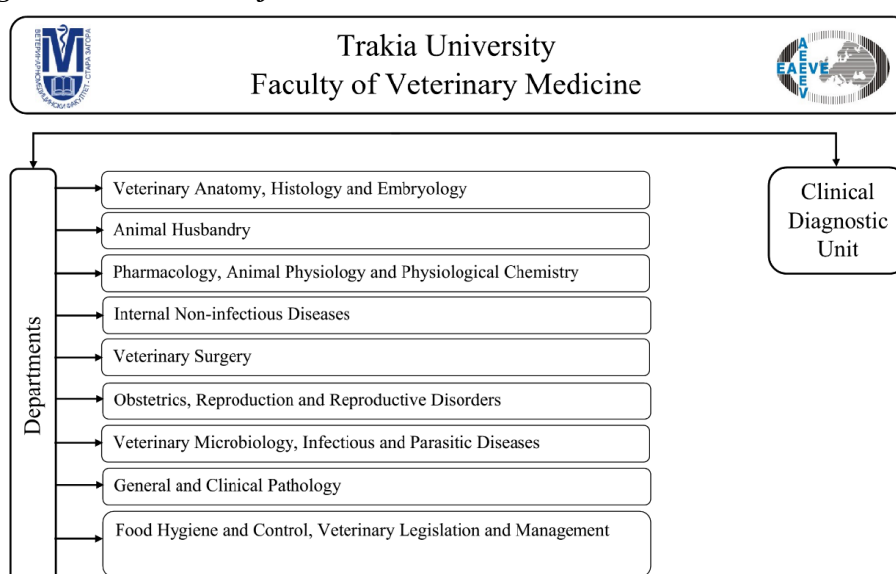
As a division of Trakia University, the FVMSZ bears its specific distinguishing features of an educational institution, which trains students, PhD students and specialisants in professional fields related to the Earth and its fertility, the condition of the environment, the health of animals and humans, as well as fulfilling the human potential in the fields of technical and pedagogic sciences, along with the related jobs.

The FVMSZ in particular, has the general mission of providing the state with trained professionals with veterinary medical competence, necessary for the national agriculture and control bodies, which ensure the quality and safety of foods, particularly those of animal origins.

The Trakia University and the FVMSZ are state-run entities and their functioning is directly affected by the state's condition, especially in the financial aspect. In this regard, particularly from a comparative perspective, the FVMSZ fulfills its social mission and accomplishes its strategic goals under the conditions of sustainable material and financial deficit. This is experienced, on one hand, as insufficient state funding for the Faculty's functioning and continued development, and on the other – the difficulties related to creating a socio-economic environment for attracting additional investments and independent income, which the state cannot overcome. The more specific dimensions of this main problem are as follows:

- Insufficient commitment by the state to provide the educational process with the needed infrastructure. It is particularly necessary for the university to build its own modern training farm with facilities for pig, poultry, cattle, rabbit and game breeding, beekeeping, etc.
- Setting aside more investments for the modernisation of the FVMSZ's research infrastructure.
- Faster introduction of modern achievements in communications and technology into the teaching process.
- Implementing policies for a much closer attraction of the business sector into the student admission and support, the process of their training, and the guarantee of the professional realisation of students trained at the FVMSZ.

1.1.4. Organisational chart of the FVMSZ



1.1.5. Organisation

The FVMSZ is a main educational and research unit within the Trakia University structure. It is fully compliant with the requirements of art. 8, p. 1 of the Higher Education Act of the Republic of Bulgaria and the Statute for the organisation, operation and management of the Trakia University (**Appendix 1-4**). The FVMSZ prepares highly qualified veterinarians for clinical practice, control and management activities, for research purposes, thus contributing to the development of the economy, science and culture. The education received in the FVMSZ is independent of ideologies, religions and political doctrines (art. 3 of the Higher Education Act).

Being an establishment with a specific profile, the FVMSZ possesses the necessary base and infrastructure. It comprises nine departments and the University Clinical Diagnostic Unit (UCDU). The departments of the faculty are as follows:

- **Department of Veterinary Anatomy, Histology and Embryology**

The academic staff of the department consists of 12 full-time instructors: 1 professor, 4 associate professors, 2 chief assistant professors and 5 assistant professors. Head of the department is Assoc. Prof. Dimitar Kostov. The department has two units: 1) Veterinary Anatomy and 2) Cytology, Histology and Embryology

- **Department of Animal Husbandry**

The academic staff of the department consists of 10 full-time instructors: 2 professors, 4 associate professors, 4 chief assistant professors. Head of the department is Prof. Dimo Girginov. The department has four units: 1) Animal Genetics and Breeding; 2) Animal Nutrition and Dietetics; 3) Animal Hygiene and Ethology; 4) Ecology and Radioecology.

- **Department of Pharmacology, Animal Physiology and Physiological Chemistry**

The academic staff of the department consists of 16 full-time instructors: 4 professors, 6 associate professors, 3 chief assistant professors and 3 assistant professors. Head of the department is Prof. Ivan Penchev. The department has four units: 1) Chemistry; 2) Biochemistry; 3) Animal Physiology; 4) Veterinary Pharmacology and Pharmacy.

- **Department of General and Clinical Pathology**

The academic staff of the department consists of 9 full-time instructors: 3 professors, 4 associate professors, 2 assistant professors. Head of the department is Prof. Stoycho Stoev. The department has two units: 1) Pathoanatomy and Histopathology; 2) Functional Pathology.

- **Department of Veterinary Microbiology, Infectious and Parasitic Diseases**

The academic staff of the department consists of 16 full-time instructors: 3 professors, 6 associate professors, 2 chief assistant professors and 5 assistant professors. Head of the department is Prof. Iliya Tsachev. The department has three units: 1) Veterinary Microbiology and Virology; 2) Parasitology; 3) Epidemiology, Infectious Diseases and Preventive Medicine.

- **Department of Veterinary Surgery**

The academic staff of the department consists of 10 full-time instructors: 1 professor, 4 associate professors, 5 assistant professors. Head of the department is Prof. Mihail Paskalev.

- **Department of Internal Non-Infectious Diseases**

The academic staff of the department consists of 11 full-time instructors: 1 professor, 3 associate professors, 7 assistant professors. Head of the department is Prof. Roumen Binev.

- **Department of Obstetrics, Reproduction and Reproductive Disorders**

The academic staff of the department consists of 7 full-time instructors: 1 professor, 2 associate professors, 4 chief assistant professors. Head of the department is Assoc. Prof. Stanimir Yotov.

- **Department of Food Hygiene and Control, Veterinary Legislation and Management**

The academic staff of the department consists of 9 full-time instructors: 2 professors, 4 associate professors, 2 chief assistant professors and 1 assistant professor. Head of the department is Prof. Alexander Pavlov. The department has two units: 1) Food Hygiene, Technology and Control; 2) Veterinary Legislation and Management.

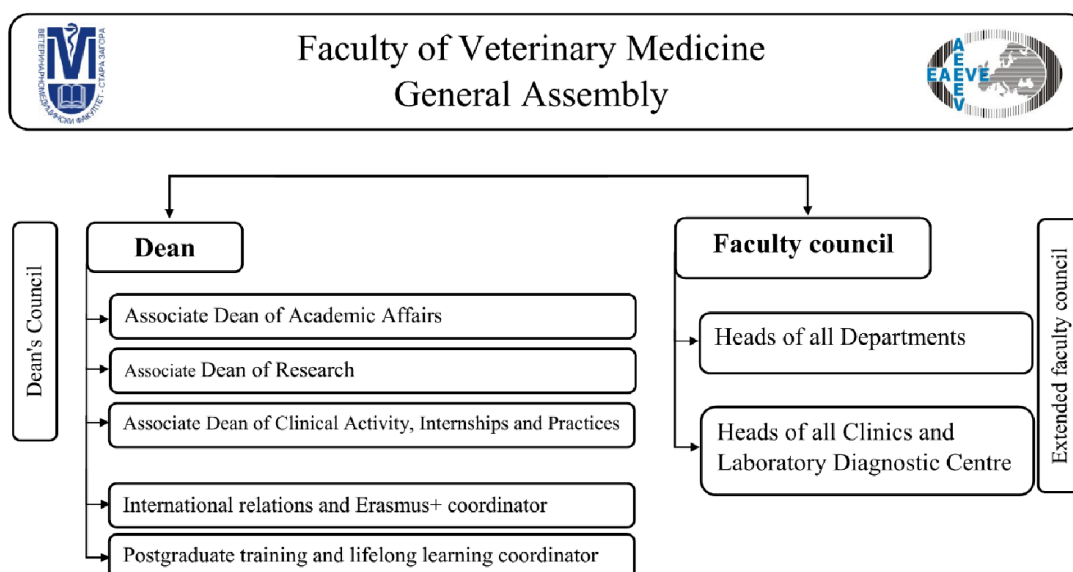
The University Clinical Diagnostic Unit (UCDU) at the FVMSZ comprises:

- Small Animal Clinic
- Farm Animal Clinic
- Equine Clinic
- Infectious and Parasitic Diseases Ward with isolation facility
- Radiology and Computed Tomography Ward
- Physical Therapy Ward
- Anaesthesiology Ward
- Animal Reproduction and Reproduction Health Control Ward
- Pathoanatomical Diagnostic Sector (autopsy room)
- Biobase
- Laboratory Diagnostic Center (LDC) consisting of clinical and specialised diagnostic laboratories: bacteriology lab, parasitology lab, virology lab, mycology lab, reproduction and udder diseases lab, histopathology lab, infectious diseases diagnostics and consultation unit.

1.1.6. Procedures and committee structure

All principal and auxiliary activities at the FVMSZ are carried out according to the vertical hierarchical management system described in the Statute for the organisation, operation and management. The rules are approved by the *FVMSZ General Assembly* – the supreme management organ. The General Assembly meets at least once per year. It consists of all habilitated and non-habilitated members of the academic staff, and representatives of students and the support staff. The General Assembly elects the Dean of the FVMSZ and the Faculty Council for a 4-year mandate.

The Faculty Council is the main collective operational management body. It approves the mandate programme of the Dean and all major operational decisions between the General Assembly meetings concerning teaching, methodological, research, clinical and consultative activities, as well as issues related to academic staff promotion and development. The Faculty Council elects permanent *mandate committees* on the main activities which are required to the Dean and the Dean Council in taking specific operational decisions. At the FMVSZ, there is a functioning Academic Affairs Committee, a Clinical Activities, Practices and Internships Committee, a Research Committee, and a Social Committee.



Apart the enumerated committees, for the duration of the mandate, the Faculty Council elects also an International Cooperation and Erasmus+ Coordinator, as well as a Continuing Education and Professional Development Coordinator.

As an educational structure, the administration of the FVMSZ actively interacts with the student organisations at Trakia University, particularly the Veterinary Medicine Students Council (VMSC). These interactions are expressed through the organisation or regular meetings between the students of different classes and the Dean's administrative team, the organisation of internships and practices in the university and beyond it, activities with regard to using students' opinion in the evaluation of the Veterinary Medicine educational field and the FVMSZ as a national scientific and educational unit.

The students are represented via a quote of their own in all major management bodies – the General Assembly and the Faculty Council. They also participate in the Academic Affairs Committee, the Clinical Activities, Practices and Internships Committee, and the Research Committee.

The FVMSZ conducts active internal interactions with the other divisions of the university – faculties, departments, experimental farm, etc. The FVMSZ's most intensive interactions are with divisions that are active in the fields of medico-biological and agricultural sciences. These interactions are expressed as research projects of various types, joint educational programmes, scientific forums, discussions on the global aspects of education and science, as well as in more specific directions.

The FVMSZ's specific logistics plays an important role in the variety of activities occurring at it. From a territorial perspective, the FVMSZ is situated in a town located in the central part of the Republic of Bulgaria, one of the liveliest regions. The Stara Zagora region is known for its developed industry, as well as agricultural sector. The latter includes, apart from grain production, vineyard growing and rose plantations, a number of smaller and larger animal farms and complexes, most of them built for the intensive breeding of various types of livestock.

There is also established infrastructure of enterprises from the fields of resource gathering and food processing. All of this enables the training of students, PhD students and residents at the FVMSZ to make good use of the capabilities of these production centres. This is particularly relevant to practical training related to the application of acquired theoretical knowledge under actual field conditions, through organised on-site class sessions, field clinics, as well as conducting professional practices and internships. Along

with the other divisions of Trakia University, an Agricultural Institute is also active in this region, focused on the fields of cattle, sheep, poultry and rabbit breeding.

The students and PhD students of the FVMSZ have access to its production and scientific infrastructure, which takes part in the implementation of the Faculty's curriculum. Furthermore, in close proximity to the university, as well as within the territory of the Stara Zagora municipality and its neighbours, there is an active pig farm, a meat-oriented poultry breeding firm with a modern poultry slaughterhouse, companies producing and processing meat, as well as milk and dairy product processing companies.

The FVMSZ has signed agreements with these production facilities, in order to support the study process of the students and residents, as well as the process of accomplishing research tasks. The FVMSZ has a similar agreement with one of the largest veterinary pharmaceutical companies in the Balkan Peninsula – BIOVET Ltd, in the town of Peshtera.

As an educational establishment of national significance, the FVMSZ has successfully integrated with other state and institutional units, whose activities correspond to its primary functions. Thus, the FVMSZ has a partnership contract with the competent national authority on animal healthcare and control over food safety – the Bulgarian Food Safety Agency (BFSA). Through its instructors, the Faculty participates in various expert councils at the Ministry of Agriculture, Foods and Forestry. It has a contract for joint action with the Centre for Evaluation of the Risk Along the Food Chain, and is also in close partnership with a number of NGO's, as well as professional and guild associations, such as the Bulgarian Veterinary Union (BVU), the association of companies producing and importing veterinary medical products, the Association of Veterinarians in Bulgaria, etc.

On a global scale, the most important challenges before the FVMSZ originate from the fact that it operates under the conditions of ongoing European integration. In this context, the FVMSZ fully accepts all main features of the common European educational model, as well as the principles and directions of European Higher Education Area. The Faculty is a long-time member of the European Association of Establishments for Veterinary Education (EAEVE) and takes active part in the procedures for regular evaluation. Furthermore, the FVMSZ maintains active partnerships with a number of European schools of veterinary medicine. Thanks to this, the FVMSZ continues to actively and confidently affirm basing its educational practices on the most current achievements in science, and the paragons of European and world culture, in an atmosphere of democracy, tolerance and humanism as universal human values.

1.2. COMMENTS

The FVMSZ is a main structural unit within the structure of the Trakia University – Stara Zagora. Its mission is subordinated to the idea of achieving the best possible training of veterinary specialists with higher education for the needs of the country. The structure and the organisation of the establishment are consistent with the national educational traditions in Bulgaria, and the strong desire to follow the best examples in Europe and the world.

The legal framework within which the FVMSZ operates, is entirely compliant to the national legislation and the Statute for the structure, activity and management of the Trakia University – a state educational establishment with a relative academic autonomy, stipulated by a special law.

2. FINANCES

2.1. FACTUAL INFORMATION

2.1.1. Description of the global financial process of the Establishment

In the Republic of Bulgaria, the higher education establishments training state-funded undergraduate and PhD students, receive a state subsidy. The latter is a part of the State budget, approved annually by the National Assembly. The state subsidy includes needed funds for remuneration of academic and support staff and social security, and capital costs. A part of the state subsidy is intended for scientific and research activities carried out at the university, which is allocated by structural units on the basis of contests for research projects' funding.

The own income of the FVMSZ comes from tuition fees paid by students and trainees, fees from individual and group continuing education courses, and from diagnostic, clinical and consultation activities. The contribution of research to the own income of the faculty is from performance of studies funded by the business.

The FVMSZ operates in strict compliance to national legislation and internal university regulations. For all state-funded establishments, including the FVMSZ, the execution, completion and reporting of budget comply with all regulations governing these activities. These include the Public Finance Act, the Higher Education Act, the State Budget Act of the Republic of Bulgaria, the decisions of the Council of Ministers on the implementation of the State Budget Act, the instructions of the Ministry of Finance, the decisions of the Academic Council, as well other laws, regulations and internal normative acts.

Research activities funds (part from the state subsidy and own income) are approved on the basis of results from contests in compliance with art. 90 and 91 of the Higher Education Act.

2.1.2. Degree of autonomy of the Establishment on the financial process

The FVMSZ, being a part of the Trakia University, does not have an independent budget. The financing of the activities in it is carried out on the basis of a delegated budget as per art. 90 p. 1, 3, 4 and 6 and art. 91 of the Higher Education Act.

The delegated budget is approved by the Academic Council of the Trakia University and is officially published, including on the higher education website school. The budget of FVMSZ comprised a share of the general state subsidy for the Trakia University and own income.

As postgraduate studies and continuing education are concerned, according to current rules of the Trakia University, all forms of training are accompanied by individual financial plan including funds for material provision of the course, remuneration of the instructors, insurance, additional remuneration for the course manager, business trips as needed, as well as deductions for the main faculty units and the university. The latter are decided and approved by the Faculty Council. Deduction rate for the Trakia University is 3%; those for disposal at the FVMSZ are approved by the Faculty Council.

2.1.4. Annual tuition fees

Annual tuition fees for national and international students are as follows:

- full-time state-funded EC citizens 900 BGN (460 EUR)
- full-time paid tuition, EC citizens 5,405 BGN (2,764 EUR)
- full-time, non-EC citizens 6,845 BGN (3,500 EUR)
- training in English 7,823 BGN (4,000 EUR)
- part-time master degree studies 1,300 BGN (665 EUR)

2.1.5. Utilities

The costs for electricity, water etc. are paid by the Rector's Administration, as the sum is deducted in advance from the annual FVMSZ subsidy on the basis of costs from the previous year.

All costs are planned and spent under the supervision of the specialised financial controlling authority. In order to facilitate planning and spending practices related to tuition, at the beginning of the financial year, the Dean, together with the heads of the departments, clinics, laboratories make an internal distribution of the funds to be spent.

The allocation and spending of financial resources is carried out in accordance with the Financial Management and Control System in the Public Sector. Each expenditure is evaluated and approved in terms of its correspondence with the budget, presence of financial resource or whether all regulatory requirements are met before its implementation.

The implementation of planned expenditures is controlled on a monthly basis with monthly reports on the implementation of the budget of each structural unit, submitted to the Rector's Administration for examination and summation before being presented to the Ministry of Education and Science.

Table 2.1.1. Annual expenditures during the last 3 academic years (in Euros)

Area of expenditure	2017/2018	2016/2017	2015/2016	Mean
Personnel	1,965,101	1,989,168	1,718,049	1,890,773
Operating costs	404,614	326,786	310,836	347,412
Maintenance costs	96,783	10,914	73,638	60,445
Equipment	160,270	90,126	201,027	150,474
Total expenditure	2,626,768	2,416,993	2,303,549	2,449,104

Table 2.1.2. Annual revenues during the last 3 academic years (in Euros)

Revenues source	2017/2018	2016/2017	2015/2016	Mean
Public authorities	3,117,571	2,710,479	2,445,860	2,757,970
Tuition fee (standard students)	303,061	299,299	304,612	302,324
Tuition fee (full fee students)	360,859	253,074	158,773	257,569
Clinical services	197,746	155,944	157,809	170,499
Other services (administrative and diagnostic services)	1,467	1,376	2,096	1,646
Research grants	42,361	31,587	28,283	34,077
Continuing Education	33,802	40,614	31,613	35,343
Donations	4,090		256	1,449
Other sources, incl.	55,481	58,490	51,340	55,104
rental fees	21,119	19,453	18,227	19,600
international contracts	22,862	35,545	22,034	26,814
conferences, forums	14,319	6,099	13,254	11,224
taxes on extra income	-2,819	-2,607	-2,175	-2,534
Total revenues	4,116,437	3,550,862	3,180,642	3,615,980

Table 2.1.3. Annual balance between expenditures and revenues (in Euros)

Academic year	Total expenditures	Total revenues	Balance (revenues – expenditures)
2017/2018	2,626,768	4,116,437	1,489,669
2016/2017	2,416,993	3,550,862	1,133,869
2015/2016	2,303,549	3,180,642	877,093

2.2. COMMENTS

As mentioned above, the funding of FVMSZ activities comes mainly from the state budget and at a lesser extent, from own income. The relative share of own income is continuously increasing, but is still far from desired level. It consists mainly of tuition fees paid by students, paid services and rental fees. Yet, the share of income from relationships with business organisations and structures, from implementation of national and international projects is small. The probable reason is that after the era of totalitarianism, newly started business in Bulgaria is not yet accustomed to seeking active partnerships with scientific organisations and universities. It is only recently that clearer signals are coming in this direction.

In general it is clear that compared to advanced European countries, the FMVSZ lives and develops in conditions of relative poverty, but nevertheless seeks to provide good quality of education and to develop research.

2.3. SUGGESTIONS

1. The FVMSZ as well as the Trakia University should develop a new, large-scale and more specific programme for attracting investments.
2. This programme should be based on operational relationships with the national business as well as with international partnerships for the development of scientific projects exceeding national importance limits.
3. The internal allocation of the university budget should be optimised, and financial flows should be reciprocal of the successes and advances achieved by the relevant university units, their activity, professional fields, as well as the recruited positions in the national university rating charts.

3. CURRICULUM

3.1. FACTUAL INFORMATION

3.1.1. Educational aims and strategy

The publicly relevant mission of the FVMSZ is to provide knowledge and to ensure the acquisition of skills of trained students in order to ensure their subsequent professional development. In a competitive environment, the FVMSZ fulfills its objectives through specific actions, set in the mandate programme of the Dean and faculty authorities.

The curriculum of the FVMSZ is developed by the Academic Affairs Committee and voted by the Faculty Council (Protocol 10/19.12.2016). It was then approved by the Academic Council of the TrU (Protocol 10/21.01.2017) (**Appendix 3-1**).

3.1.2. Legal constrains imposed on curriculum by national legislations

The new curriculum of the FVMSZ corresponds entirely to the mission of the establishment and is reflection of its objectives. It is fully compliant with state requirements for graduating in veterinary medicine approved with Decree of the Council of Ministers No. 17/28.01.2016 (**Appendix 3-2**). The requirements for total number of hours set by the Decree are met. The curriculum fixes the form and duration of the training and the form of final control. It lists course names and distribution of course hours per semesters, as well as the type of student work (in-class or out-class). The number of ECTS credits assigned for completion of each course and total number of ECTS credits, the type, name and duration of practical trainings and the type of state examinations are also set by the curriculum. The development of the curriculum has taken into consideration of the recommendations and needs of employers of veterinary specialists through the professional organisation Bulgarian Veterinary Union and the Bulgarian Food Safety Agency. The latter participate in discussions on training of undergraduate and postgraduate veterinary students in line with public needs and established EC practices

According to Ordinance 21 from 2004 for application of the European Credit Transfer System in higher education establishments, undergraduate students receive a total number of **360 ECTS credits** comprising **300 ECTS credits** for in-class and out-class work on studied courses and **60 ECTS credits** for pregraduation practical training and state examinations.

According to state requirements for graduating in veterinary medicine, *core subjects* providing fundamental and specialised knowledge, are of primary relevance to the veterinary curriculum. Apart those, students take several elective subjects to complete the necessary number of ECTS credits. Elective subjects are also a mandatory element of the curriculum.

Curriculum documentation of the professional field 6.4. “Veterinary Medicine” is developed in line with the Higher Education Act of the Republic of Bulgaria and is entirely compliant with the goals set in the Strategy for the Development of Higher Education in the Republic of Bulgaria for the period 2014–2020. Conceptually, this documentation is oriented to the best practices of the leading national and European universities, with whom the FVMSZ maintains traditional contacts. The procedures related to the development, approval, monitoring, update and control of the training documentation of veterinary students are regulated by: Statute for the Structure, Activity

and Management of the Trakia University (**Appendix 1-4**), Statute for the Training Process at the Trakia University (**Appendix 3-3**), Statute for the Structure, Activity and Management of the FVMSZ (**Appendix 1-2**), The European Credit Transfer System, the Quality Management System, which are in full compliance with the requirements of the Higher Education Act and the related normative acts.

The curriculum contents corresponds to standards set in Directive 2013/55/EU (**Appendix 3-4**) and includes all groups of subjects listed in Annex 5.4.1., allowing the acquisition of *Day One Competences* (output).

The Associate Dean of Academic Affairs, the heads of departments and clinics perform administrative control on the state of the FVMSZ training documentation as well as on the systems in place for verification and evaluation of the quality of the students' training. These functions are included in their job description. An important place of the quality control on students' training is held by the persons responsible for training quality control in each department. The implementation of this permanent control on training is carried out in accordance with the *Instruction on the Quality Management System of the Trakia University* (**Appendix 3-5**).

The curriculum of the FVMSZ is harmonised with criteria of the National Qualification Framework of the Republic of Bulgaria (**Appendix 3-6**) and requirements for obtaining a Master's degree correspond to respective levels of the European Qualifications Framework (EQF) (**Appendix 3-7**), Framework for Qualifications of the European Higher Education Area (FQEHEA) and the respective ISCED cycle. The curriculum fulfills the requirements of the Higher Education Act and criteria set by the Ordinance on State Requirements for Higher Education in the Specialty of "Veterinary Medicine" approved with Decree of the Council of Ministers No. 17/28.01.2016. It is a fundamental document, because it includes the state policy in the field of veterinary medicine training, having in mind that the veterinary profession is one of the few state regulated professions.

The Ordinance regulates: the duration of studies and the total minimum number of hours; application of the ECTS system; admission of students; mandatory subjects and minimum number of hours for each of them; number of hours for elective subjects; conditions for performance of theoretical training; conditions, periods and duration of practical training sessions; the content and performance of state exams. The legislations allow the educational establishment several autonomous decisions with respect to the curriculum. Thus, it is possible to increase the number of hours of a core subject, as well as to include core subjects in plus of those specified in the Ordinance for state requirements. The number and type of elective subjects are not limited and could be entirely decided by the FVMSZ. Also, the Ordinance does not limit the number, type and number of hours for additional training courses, including continuing education courses.

3.1.3. Identification and correction of curricular overlaps, redundancies, omissions, lack of consistency

Overlapping of study content of the different courses is not fully excluded, but this is not really a shortcoming as a given material is taught by different courses in a distinctive context, thus ensuring continuity in learning. Unnecessary topics, missing topics, the lack of compliance, as well as other omissions have been repeatedly discussed by the Academic Affairs Committee of the FVMSZ. Apart lecturers, the latter includes also students and practising veterinarians. Often, course lecturers, head of departments and units, and representatives of the Student's Council also take part in discussions. For us, the opinion of students expressed at regular and traditional meeting of the FVMSZ authorities with students, is of utmost importance. Changes in the course content are

proposed by the Academic Affairs Committee and after discussion, are approved by the Faculty Council.

3.1.4. Description of the core clinical exercises/practicals/seminars prior to the start of the clinical rotations

The clinical training at the FVMSZ begins as early as the 5th semester with the core subject “Propaedeutics and clinical laboratory diagnostics” which introduces undergraduate students to practical approaches and techniques for clinical and paraclinical examination of main animal species. The training is carried out in UDCU and the Laboratory Diagnostic Centre. It comprises main principles of history taking, examination of status by body systems, indications and methods of biological samples’ collection for laboratory analysis.

Before the start of clinical rotations, the students are also trained in the field within the framework of the “Epidemiology and Preventive Veterinary Medicine” core subject. This training acquaints them with primary biosecurity principles in animal facilities, personal biosecurity measures, how to examine and analyse population health parameters. They solve different cases related to population healthy and/or public health. The subject teaches also the main theoretical and practical aspects of disinfection, disinsection and deratisation.

Before the start of clinical rotations, the students are taught the theory and practice of reproduction in intensive livestock production systems. They are acquainted with reproduction potential of male and female breeders, its physiological course and management. Pregnancy monitoring with identification of possible pathological deviations is also taught. The training takes place mainly in the new Reproductive Health Centre to the UDCU and extramural bases with which the FVMSZ has signed partnership contracts.

3.1.5. Description of the core clinical rotations and emergency services and the direct involvement of undergraduate students in it

The real clinical training at the FVMSZ comprises the time from the 7th to the 10th semester of studies, as well as the time of pregraduation training. During the semesters the students master the primary clinical approaches in practical conditions through periodic duties at the FVMSZ clinics and UDCU wards. They are in groups of 6 to 12 depending on the specific topic of the training. During the duties, they spend an entire week at the clinics. Their obligations comprise referral and inscription of patients, performance of first examination, collection of samples for laboratory analysis, they participate in the diagnostic algorithm, prescription of therapy and its performance. They students participate actively in all manipulations at a level which would not pose a threat to the life of the patient. Undergraduate and PhD students, as well as specialisants participate actively in diagnostic imaging studies, disinfection, bandaging etc.

In population health field training, students participate actively in dehorning of cattle, hoof examinations and treatment, preventive and forced immunisations, collection of samples for serological analyses, mass treatments against parasites, disinfections and deratisations of farms and other facilities. For field training, student groups are from 12 to 20 people equipped according to strict compliance to personal safety and biosafety rules. Before the training, they are acquainted with normative regulations about human and animal safety.

3.1.6. Teaching in slaughterhouses and in premises for the production, processing, distribution/sale or consumption of food of animal origin

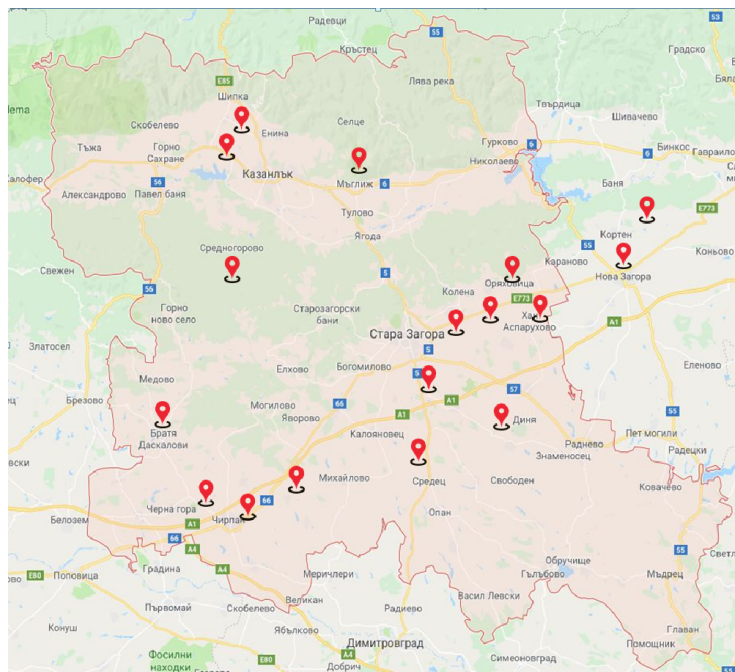
The training of students in food safety and quality is related to visits in enterprises that process animal foodstuffs. For this purpose, the FVMSZ has signed contracts with 2 slaughterhouses and 2 milk-processing enterprises. The first slaughterhouse produces meat from pigs and small ruminants, has a meat-processing premise producing meat cuts, freshly cooked and dry sausages. The second slaughterhouse produces meat from pigs, small and large ruminants. It is used mainly in the training of students on control on the slaughter of cattle and with hazards related to bovine spongiform encephalopathy. A poultry slaughterhouse is visited for acquaintance with the technology of poultry slaughter and poultry meat processing. Also, students visit at least another two meat producing/processing enterprises during the student travel seminar, performed by the end of the 10th semester. Milk-processing enterprises produce pasteurised milk and yoghurt, butter, and two types of traditional Bulgarian cheeses. During the student travel seminar at the end of the 10th semester, students visit another two milk-processing enterprises in other regions of the country.

The training of students in food safety is performed within the framework of three different subjects. The visits in enterprises are an integral part of the training. The meat-processing enterprise in Han Asparuhovo is situated at 25 km from Stara Zagora. The course syllabus in Hygiene and Technology of Meat and Meat Products provides 3 training sessions of 3 hours each, i.e. 9 hours for acquaintance with the structure of the slaughterhouse, slaughter technology and meat processing. Usually, students pass a whole day in the enterprise on a rotation principle and observe all phases of meat production. In the morning, one group of 8-10 students are brought in the enterprise with faculty transport under the supervision of instructors and remain there until the end of working hours (from 8 AM to 5 PM) and they are transported back to town. A lunch is provided. That way, all students are trained for 16 weeks (the same number as study groups). During the 10th semester, meat inspection of slaughtered animals is performed at the same enterprise. The principle of training is the same – one study group remains at the site for one full workday. The aim of the training is to allow each student to perform independently meat inspection of at least two carcasses (viscera included) – of a pig and of a small ruminant, under the supervision of the instructor.

The meat inspection of cattle is learned by observation per groups, because the cattle slaughterhouse is in Nova Zagora, at 35 km from the University, and time of visits is shorter. Each student is carrying disposable protective clothing throughout the visits in the slaughterhouses. The practical training in poultry slaughtering technology is conducted in the poultry slaughterhouse in Stara Zagora – the highest capacity modernly equipped enterprise in Bulgaria. The students visit the enterprise in groups between 8.30 and 12.00 AM together with an instructor from the department. Students are given disposable protective clothing.

Visited dairy enterprises are two. The dairy enterprise in Bratya Daskalovi is 35 km far from the Faculty of Veterinary Medicine. There, students are acquainted with transportation, delivery, inspection, technology of producing fresh pasteurised milk and yoghurt. Students (usually 2 groups, 16-20 students) visit the plant during the 9th semester between 8.30 and 12.00 AM. The transport is provided by the FVMSZ. Students are given disposable protective clothing. The dairy enterprise in Youlievo is situated at 20 km from Stara Zagora. There, students are acquainted with the technology of production of white brined cheese and kashkaval (a specific type of yellow semi-firm cheese). Students (usually 2 groups, 16-20 students) visit the plant during the 9th semester between 8.30 and

12.00 AM, transport being provided by the FVMSZ. Students are given disposable protective clothing. Throughout the so-called student travel seminar, students visit another two dairy manufacturing enterprises and one or two slaughterhouses. For these visits, study groups are of about 30 students, supervised by two instructors and they only watch the technological process. After the visit, a degustation of products is performed with discussion on the quality of tasted products.



3.1.7. Selection procedures of the electives by the students

The strategy of the FVMSZ management and the Academic Affairs Committee on elective disciplines includes widening of the scope and number of courses, but within limits determined by provision of resources, material, time and instructors.

Elective subjects are **24** and are distributed in all semesters of studies. Within each semester, students should select at least one of offered 2 or 3 courses depending on their interests and future professional orientation. The distribution of subjects per semesters takes account on the level of knowledge and progress of skills at each specific moment. Electives are part of the curriculum, uploaded at the FVMSZ website and so information is always available to students. This way, they could make a plan of elective subjects for the entire period of studies. At the beginning of the semester, they enroll in the chosen course at the department where it is taught. Occasionally, although rarely, students do not select an elective for a given semester but they should compensate this by enrolling in more courses during the subsequent semesters to obtain the needed number of credits. The credits coming from each elective subject are specified in the curriculum.

The groups of students include minimum **6** and maximum **12** students depending on the subject (fundamental or clinical). Some of electives are chosen by few students whereas the major part of all students could be enrolled in another elective subject. The long-standing experience of departments allows them to be prepared for such situations and they are able to provide the necessary resources for training. Thus, each student receives the desired training in elective courses.

3.1.8.; 3.1.9. External practical training (EPT). Ascertaining of achievements

The FVMSZ has signed contracts with establishments where EPT is conducted, namely: with the Bulgarian Food Safety Agency (BFSA) and its Regional Directorates; with Ajax Ltd (the biggest pig producer in Bulgaria), the Agricultural Institute in Stara Zagora, farms in villages Zagore, Zagortsi, Byal Izvor, Gita, Spasovo, Svoboda, Maglitzh, Han Asparouhovo, Kran, Srednogorovo; Lucky Hunt Foundation, Green Balkans wildlife rescue centre, Biovet Ltd – Peshtera and many others (see map below). The originals of all contracts are available at request from the visiting team (copies from contracts with Ajax Ltd and Green Balkans are provided in **Appendix 3-8**).

Representatives of EPT providers are in continuous contact with the Associate Dean responsible for Clinical Activity, Internships and Practices, Heads of Clinics and instructors, responsible for the specific subjects. After the completion of the EPT, partner institutions receive thank-you letters. We have established a tradition of meeting with the partner business organisations on the FVMSZ birthday, where the opportunities for consultative, diagnostic and therapeutic activities of the VMF are presented and the potential for expanding the bilateral cooperation are discussed.

Academic staff persons, responsible for the supervision of the EPT activities are:

- Assoc. Prof. Dian Kanakov – Associate Dean, Clinical Activity, Internships and Practices.
- Department heads, instructors responsible for specific subjects.

Feedback from EPT is received from the discussion with the commission for EPT evaluation. If some problems are identified, they are timely commented with the provider and according to contract clauses, both parties make attempts for their solution. After the end of EPT, students' opinion is obtained by anonymous surveys.

Before each EPT session, the Associate Dean responsible for Clinical Activity, Internships and Practices meets responsible persons from respective departments to elucidate the goals, required documentation for EPT reporting and all issues to EPT evaluation and defense (details are already given).

1. EPT after the end of the 6th semester

Synopsis: EPT after the 6th semester acquaints students with activities related to animal nutrition and dietetics, veterinary sanitary control on feeds, hygiene practices in animal rearing facilities, organisation and techniques of selection activities. The EPT engages students in group prophylaxis and treatment activities at farms. During the training they are acquainted with farm-specific diseases, most commonly intoxications, and with approaches to their preventions. They learn about biosecurity measures taken at farms, including means of disinfection, disinsection and deratisation, isolation and quarantine of newly introduced animals, and acquire basic practical skills. The EPT programme is aimed at building practical skills, broaden students' knowledge from the pre-clinical courses and especially from zootechnical courses. Detailed content of EPT after the 6th semester is provided in **Appendix 3-9**.

Place: The EPT is carried out in animal farms, experimental stations, agricultural cooperatives, private animal farms.

Duration: 4 weeks (20 days, 160 hours).

EPT supervision and control: Persons in charge are farms managers and licensed veterinary surgeons employed at farms.

EPT evaluation: It is done before students are enrolled for the new academic year on the basis of written EPT report. The report includes a diary and official notice certified with

the signature and stamp of the farm veterinarian. The documents are checked by a commission of instructors from the Department of Animal Husbandry, appointed with an order from the Dean. In case of positive evaluation, the preclinical EPT is validated with a grade "Pass" in the student record book by the instructor presiding the Commission. Students with negative EPT evaluation results are not eligible to enroll in the next semester.

Foreign citizens are allowed to perform half of their EPT in their native countries without financial obligations for the FVMSZ.

2. EPT after the end of the 8th semester

Purpose: The aim of EPT after the 8th semester is to strengthen and broaden the practical skills of students acquired from the clinical training from the first 8 semesters.

Place: Veterinary clinics and/or regional veterinary practices. During the first day of the practice, students are registered in the Regional Directorate of Bulgarian Food Safety Agency and specify the facilities where they will practice. At the end of the EPT they present their EPT documents in order to receive official certificate for EPT completion.

Duration: 4 weeks (20 days, 160 hours)

EPT evaluation: The documents that the students should present after the EPT are:

- Journal from the practice with description of performed activities (diagnostics and treatment of patients, visits to farms in a way similar to that used for ambulatory records);
- Certificate of attendance: short text stating the duration of the EPT and impressions from the performance of the students. It is signed by the licensed veterinarian.

EPT evaluation comprises discussion between the student and a commission of two instructors from the clinical departments, appointed with an order from the Dean, that check the documents and ask questions to the student. In case of positive evaluation, the preclinical EPT is validated with a grade "Pass" in the student record book. Students with negative EPT evaluation results are not eligible to enroll in the next semester.

3. Pregraduation EPT after the 10th semester

Synopsis: The professional specialisation aims to help in the assimilation of practical routine skills acquired after mastering of all procedures taught in clinical courses and EPT after the 8th semester. Future graduates should be adapted to real conditions in the practice. The pregraduation EPT allows improvement of professional and social contacts of graduates with practitioners, animal owners, farmers and workers in food processing enterprises.

Place and duration: In line with state requirements, the duration of pregraduation EPT is 12 (twelve) weeks.

The pregraduation EPT is performed in 3 stages. During the first 4-week stage, the future veterinarians are in Regional Directorates of the BFSA. The first 10 working days they visit all enterprises associated to food safety and quality. The next 10 working days they continue their training in regional (district) centres together with municipal (official) veterinary surgeons. The second 4-week stage should take place in private small animal veterinary clinics. The third 4-week stage is spent in a licensed large animal practice or large animal farm (work with farm animals).

Foreign citizens are allowed to perform the second and third part of their pregraduation EPT in their native countries following strictly the EPT programme. After returning to the faculty, they present a certificate for having spent the respective periods in veterinary clinics. This is done without financial obligations for the FVMSZ.

EPT documentation: The required documentation includes written report for the pregraduation EPT. It should include description of sites and technologies used at visited enterprises together with state veterinary control official, analysis of state and problems of veterinary services in the respective regions according to the pregraduation EPT programme. The report should reflect the creativity and individuality of the student, analytical and critical interpretation skills, and his readiness to practice the profession independently. The report should have a volume of 15-25 standard pages. The application of schemes, graphs, the presence of elements of critical analysis are desirable and lead to an increase in the overall grade of the EPT.

The EPT journal include day-by-day description of performed manipulations, diagnostic activities and treatment of diseases, visits at farms or other sites, similarly to keeping an ambulatory record.

The official notice contains a short text stating the duration of the EPT and the level of performance of the student. It is certified by the Regional Directorate of the BFSA and sites where the pregraduation EPT has been performed.

EPT evaluation: All reports for EPT carried in a given Regional BFSA Directorate are presented to the same commission for control and better evaluation of student's performance. The verification and evaluation of pregraduation EPT is done after presentation of the student, discussion and defense of the EPT before a commission (headed by a habilitated instructor and consisting of 5 members, habilitated or not) appointed with an order from the Dean.

EPT evaluation grades are: "pass", "conditional pass", "fail". Written reports and diaries are presented also to state examination commissions and could influence the final state exam grade.

The pregraduation EPT is given an evaluation "fail" in case of: 1. Lack of official certificate of student's attendance signed and sealed by the Director of the Regional Directorate of the BFSA; 2. Presence of serious stylistic, spelling and professional errors, unacceptable for a future graduate; 3. Evidence for cheating and unethical practices in preparing the report. The pregraduation EPT is given an evaluation "conditional pass" in case of: 1) Flaws in documentation, insufficient number of patients seen or poor patient records; 2) Lack of personal analysis of EPT information; 3) Amendable flaws in the written report or EPT journal.

When a "conditional pass" or "fail" evaluation of student's performance during the EPT is received, the latter is repeated as follows: for a period of 1 week in the clinics of the FVMSZ in case of "conditional pass"; for a period of 4 weeks in case of "fail". After the end of the respective period, the pregraduation EPT is defended once again.

3.1.10. How and by who the core curriculum is decided, communicated to staff, students and stakeholders, implemented, assessed and revised

The FVMSZ possesses a working system for timely information of the academic staff for the efficiency of training quality management activities and their outcomes

The Dean and FVMSZ authorities exert a permanent control and perform periodical analyses on students' achievements in different subjects and takes measures to eliminate existing weaknesses. All are first discussed by the Academic Affairs Committee to the FVMSZ and then, at a Faculty Council meeting. Such analyses are prepared after each examination session. The Faculty Council makes decisions and recommendations for correction and improvement of the training. By the end of each academic year, the Dean's team reports to the General Assembly of the Faculty – the main part of this report is devoted to analysis of tuition quality and measures for its improvement.

As already stated, the curriculum of the FVMSZ includes both core and elective subjects with respective hours of in-class and out-class studies. Every subject brings a specific number of ECTS credits. The programmes of core and elective subjects are developed in line with the Ordinance on State Requirements for Higher Education in the Specialty of "Veterinary Medicine" and the EC standards for acquisition of Master's degree in veterinary medicine. The programme for a given subject is composed by the leading instructor, discussed at department staff meetings, and is given for assessment to at least one external reviewer. If the evaluation is positive, the programme is accepted by the Academic Affairs Committee followed by approval by the Faculty Council. The development and approval of updates of subjects' programmes follows the same order. At the end of each academic year, the documentation is analysed and if necessary, corrections, additions and amendments are made.

Updates of study documentations are made upon changes in legal basis, proposals from departments or leading instructors of courses, recommendation of external or internal auditors, stakeholders, or results from questionnaires filled by students. The information for updated documentation is made available to academic staff by heads of departments, to students – by course managers. They are readily available at FVMSZ's website to whom it may interest.

International cooperation and ERASMUS+ mobility

The priority objectives of the Dean's team and International Relationship's Department at the FVMSZ for the period are related to the continuation of the process of expanding the international contacts and cooperation of the FVMSZ with other veterinary faculties and universities in Europe with a view to the successful internationalisation of the establishment and its recognisability as an renowned and reliable partner. Thus, Erasmus+ Program contracts as well as other bilateral cooperation agreements are very important with this regard.

The total number of Erasmus+ mobility contracts for the Trakia University for the period is 113, out of which, 37 for the FVMSZ.

To the 22 contracts existing to 2014, 15 new contracts have been signed in 2015-2018 with faculties of veterinary medicine or universities in EC countries (Milano, Perugia – Italy; Murcia – Spain; Evora – Portugal; Zagreb – Croatia; Ljubljana – Slovenia; Cluj-Napoca – Romania; Kaunas – Lithuania; Tartu – Estonia; Krakow, Lublin – Poland; Thessaloniki – Greece), Adana, Aksaray – Turkey, Skopje – Republic of North Macedonia. The faculties of veterinary medicine in Leipzig and Utrecht also receive our students with individual Erasmus+ contracts. Preliminary contracts have been signed with the State Veterinary Academy in Kazan, Russia, the State Veterinary Academy in Kharkiv, Ukraine, the Agrarian University in Moldova. This greatly expands students' exchange opportunities and elevates the international reputation of FVMSZ internationally. Thus, students have a larger choice of appropriate faculty to carry out mobility for training or internship. This also applies to the mobility of instructors. The ambition is to make the newly signed contracts working fully as soon as possible. The Dean's team makes a lot of effort in this direction.

Students from the FVMSZ are also actively involved in the new Erasmus + initiative, which allows conducting internships in private veterinary clinics in EU countries with individual contracts. In the period 2015-2018, the FVMSZ has signed more than 20 contracts with private veterinary clinics in Germany, France, Spain, Greece, Cyprus, Turkey, North Macedonia, Romania, Slovakia, the Czech Republic, the Netherlands, England, Ireland etc. Contracts with other clinics in EU countries are also being negotiated. It should be noted that students are the active part in these contracts. In most

cases, contracts are individual and apply to specific mobility, which necessitates constant search for new clinics. This allows our students to work and feel the atmosphere in private veterinary medicine facilities abroad, which gives them invaluable experience and opportunities for their future employment. The feedback for their work for now is very good, which inevitably contributes to the international credibility and recognition of the FVMSZ.

In addition to the Erasmus+ contracts, bilateral cooperation agreements have been signed in the field of education and research with other countries - the Moscow Veterinary Academy and the Kazan State Veterinary Academy in Russia, the State Veterinary Academy in Kharkiv, Ukraine, the University of Iowa, USA. A contract for cooperation was signed with the University of Seoul, South Korea.

During the period, the traditionally good relations between the FVMSZ and a number of veterinary faculties in Turkey continued to develop. An example is the ongoing, two-week internship of students from the Faculty of Veterinary Medicine and the Faculty of Veterinary Medicine at the University of Istanbul exchange practice. Our students and young lecturers participate regularly with presentations and posters at the annual International Student Conference, organised by the University of Istanbul. In addition to the University of Istanbul, the FVMSZ also cooperates actively with other veterinary medicine faculties in Turkey such as those in Bursa, Ankara, Adana etc.

Students mobility 2015-2018

During the reporting period, the number of students from the FVMSZ having performed Erasmus+ mobilities is continuously increasing, which further strengthened the leading position of FVMSZ among the other structural units of the university. In the 2017-2018 academic year, student mobility in the FVMSZ is almost half of all mobilities at the TrU, and this is also the case for the scholarships. The FVMSZ is the institution with the greatest contribution to the development of the program in the university. This success, however, requires hard work to uphold the positions we have gained and to develop them, which is very important for the successful internationalisation of the institution.

An important component of international activity and Erasmus+ activity evaluation is incoming mobility. This was a major topic of the intra-university monitoring conducted above. Important decisions were taken to increase not only the number of students wishing to undertake periods of study or internship at the various units of the Trakia University, but also to improve the conditions for their successful realisation. Although not at the desired extent, there is a significant increase in the number of Erasmus + foreign students during the reporting period at the FVMSZ. While in the 2016-2017 academic year we had four students (two from North Macedonia and two from Poland), in 2017-2018 their number is 10 (6 from North Macedonia, 3 from Poland and 1 from Turkey), 7 of which for full training and 3 – for practical training.

Student mobility from 2014 to 2018

Year	Outgoing students		Total
	Training	Practical training	
2014-2015	5	13	18
2015-2016	3	20	23
2016-2017	3	30	33
2017-2018	3	57	60
2018-2019	6	80 (requests)	86

Staff mobility 2015-2018

In terms of staff mobility, the new selection criteria on the basis of a scoring system aimed at greater objectivity in the ranking adopted by the Rector's Office are strictly applied. The current practice at the FVMSZ is to mobilise habilitated lecturers only for the purpose of teaching. In recent years, the number of staff mobilities in FVMSZ and TrU is almost constant.

Student and staff mobility in 2012-2014 vs 2015-2018.

	2012-2014		Total	2015-2018		Total
	outgoing	incoming		outgoing	incoming	
Student mobility	60	7	67	122	14	130
Staff mobility	43	5	48	35	15	50

The selection committee always gives priority to young teachers and those who have not participated so far. There are still unused reserves in terms of incoming teaching mobility. During the period, a total of 15 lecturers from Slovakia, the Czech Republic, North Macedonia, Turkey conducted mobility in the FVMSZ for teaching or training purposes. Visit periods, work schedules and other supporting documents are coordinated with the heads of relevant departments. However, there is a need for more activity to invite professors from related departments of other contracted veterinary faculties in Europe. This will, on the one hand, lead to the exchange of valuable experience and good practice in the training of the relevant disciplines, and at the same time, to establishment of useful contacts and conditions for future cooperation in the research activity by participating in joint projects and conducting research within different EU programmes.

English language programme

In academic year 2015-2016 the FVMSZ has started English-language training in the main major, e.g. Veterinary medicine. Thirteen students were enrolled in one study group. In 2016-2017, 22 students (2 study groups) were admitted. Two students were successfully transferred from the Veterinary Faculty in Warsaw, Poland in second year of study. In 2017-2018, the FMFSZ has enrolled 30 students and in 2018-2019: 24 students, also in two study groups. At present, a total of 87 students from Greece, the UK, Ireland, Israel, Cyprus, Canada, Norway, Finland, Jamaica, Malaysia, Singapore, Turkey and India are trained in English

The first class (2015) will complete their first 10 semesters in academic year 2019-2020 and at the end of 2020 most of them will graduate. The English language programme follows strictly the curriculum for Bulgarian students.

The start of the training in English has encountered a number of difficulties. Until now, the FVMSZ authorities successfully cope with all administrative, social, and educational issues. During the first two years, part-time lecturers were used for three of the subjects in the curriculum (Zoology, Ecology and Latin). At present only the Zoology course is taught by a part-time lecturer. All other subjects are taught by lecturers on a full-time contract with the Trakia University. The administrative management of the English language training is supported by two coordinators, members of the academic staff. The appointment of a full-time co-ordinator is planned in the future and this will significantly improve the administrative services to the English language programme.

Table 3.1.2 (cont'd). Curriculum hours in EU-listed subjects taken by each student

Professional ethics	10	5						15
Animal ethology	16	5	4		2			27
Animal welfare	14	1			3			18
Animal nutrition	30	22		8				60
Clinical Sciences	A	B	C	D	E	F	G	H
Obstetrics, reproduction and reproductive disorders	92			10		106		208
Diagnostic pathology	60			6		54		120
Medicine and surgery including anaesthesiology	141	4				94	10**	249
Clinical practical training in all common domestic animal species						108		108
Preventive medicine	12	12				12		36
Diagnostic imaging	20					20		40
State veterinary services and public health								
Veterinary legislation, forensic medicine and certification	30	45						75
Therapy in all common domestic animal species	100	4				111		215
Propaedeutics of all common domestic animal species	60					60		120
Animal production	A	B	C	D	E	F	G	H
Animal production and breeding	45	36			9			90
Economics	15	15						30
Animal husbandry	30	5	15	5	5			60
Herd health management	10					10		20
Food safety and quality	A	B	C	D	E	F	G	H
Inspection and control of food and feed	43	12		28			6***	89
Food hygiene and food microbiology	16			28				44
Practical work in places for slaughtering and food processing plants	3						24***	27
Food technology including analytical chemistry	28			29			6***	63
Professional knowledge****	A	B	C	D	E	F	G	H
Professional ethics & behaviour								
Veterinary legislation								
Veterinary certification and report writing								
Communication skills								
Practice management & business								
Information literacy & data management								

A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; H: total

*Issues related to G (others) include: * Visit of a pharmaceutical enterprise; **Extramural clinical training; ***Visits in food industry enterprises; ****The Professional Knowledge hours are distributed as follows:*

- *Communication skills: the study content is part of "Professional Ethics" course; also taught within the "Private Veterinary Practice Management" elective course.*
- *State veterinary service and public health: taught within the "Public Veterinary Activities and Legislation" course;*
- *Professional ethics and behaviour: taught within the "Professional Ethics" course*
- *Veterinary legislation, forensic medicine and certification – the study content is distributed between two independent courses: 1) Public Veterinary Activities and Legislation; 2) Forensic Veterinary Medicine*
- *Veterinary legislation: the study content is taught in the "Public Veterinary Activities and Legislation" course*
- *Veterinary certification and report writing: the material is taught for 5 hours in the "Public Veterinary Activities and Legislation" course*
- *Practice management & business – taught by "Private Veterinary Practice Management" elective course*

Table 3.1.3. Curriculum hours taken as electives for each student

Electives	A	B	C	D	E	F	G	H
Basic Sciences	94	12		44				150
Clinical Sciences	115	12		4	2	32		165
Animal Production	53	4		3				60
Food Safety and Quality	10		2	3				15
Professional Knowledge	30							30

A: lectures; B: seminars; C: supervised self learning; D: laboratory and desk based work, E: non-clinical animal work; F: clinical animal work; G: others (specify); H: hours to be taken by each student per subject group

Table 3.1.4. Curriculum days of External Practical Training (EPT) for each student

Fields of Practice	Minimum duration (weeks)	Year of programme
Production animals (pre-clinical)	4	3
Companion animals (pre-clinical)	4	3
Production animals (clinical)	4	4
Production animals (clinical)	4	5
Companion animals (clinical)	4	4
Companion animals (clinical)	4	5
FSQ & VPH	4	5
Others		
Student Practices programme of the Ministry and Education and Science* (optional)	240 hours	1, 2, 3, 4, 5

** The Project BG05M20P001-2.002-0001 of Ministry of Education and Science of Bulgaria "Student Practices - Phase 1" funded by Operational Program "Science and Education for Smart Growth" started in 2016. A total of 430 undergraduate students from the FVMSZ from 1st to 5th year of study are registered for participation. Companies registered in the projects are 47, and 22 of them have signed contracts.*

Table 3.1.5. Practical rotations under academic staff supervision (excluding EPT)

Types	List of practical rotations (disciplines, species)	Duration (weeks)	Year of programme
Intra-mural clinics (VTH)	Biobase*	1	2; 3
	Farm animal clinic	1	4; 5
	Small animal clinic (summer)	4	4; 5
	Small animal clinic (surgery)	2	5
	Small animal clinic (obstetrics)	2	5
	Small animal clinic (internal diseases)	1	5
	Equine clinic	1	4; 5
	VTH (Saturdays and Sundays)	1	5
Ambulatory clinics	Clinical departments	15	5
Herd Health Management	Internal diseases	5	5
	Surgery and Obstetrics		
	Infectious diseases		
	Parasitology		
	Animal hygiene and nutrition		

Table 3.1.5 (cont'd). Practical rotations under academic staff supervision (excluding EPT)

FSQ & VPH**			
Electives			
Other (training at Biovet Ltd)	Pharmacology	1	3

**The FVMSZ allows students to practice with a specific animal species after preliminary enrolment by the Head of the FVMSZ Biobase.*

*** The practical training in Food Safety and Quality and Veterinary Public Health is described in details in the text that follows.*

Table 3.1.6. Optional (not compulsory) courses proposed to students

	A	B	C	D	E	F	G	H
Badminton								104
Athletics								104
Football								108
Rugby								110
Field hockey								106
Volleyball								168

H: hours to be taken by each student per subject group

3.2. COMMENTS

The training in the Veterinary Medicine major is only full-time, therefore the opportunities of our students to profit from the "Student Practices - Phase 1" programme under Project BG05M20P001-2.002-0001 of Ministry of Education and Science of Bulgaria are limited, as bases are distant from the city. Fourth-year students are eligible to pass 2 weeks of their summer practical training in the clinics of faculties in Istanbul and Skopje according to agreement for collaboration.

The current status Approval given by ECOVE, the good material base and the excellent academic staff open great opportunities to our establishment. This, along with the growing prestige, can also be a substantial additional source of funding for the faculty, and a way to raise the salaries of the teaching staff.

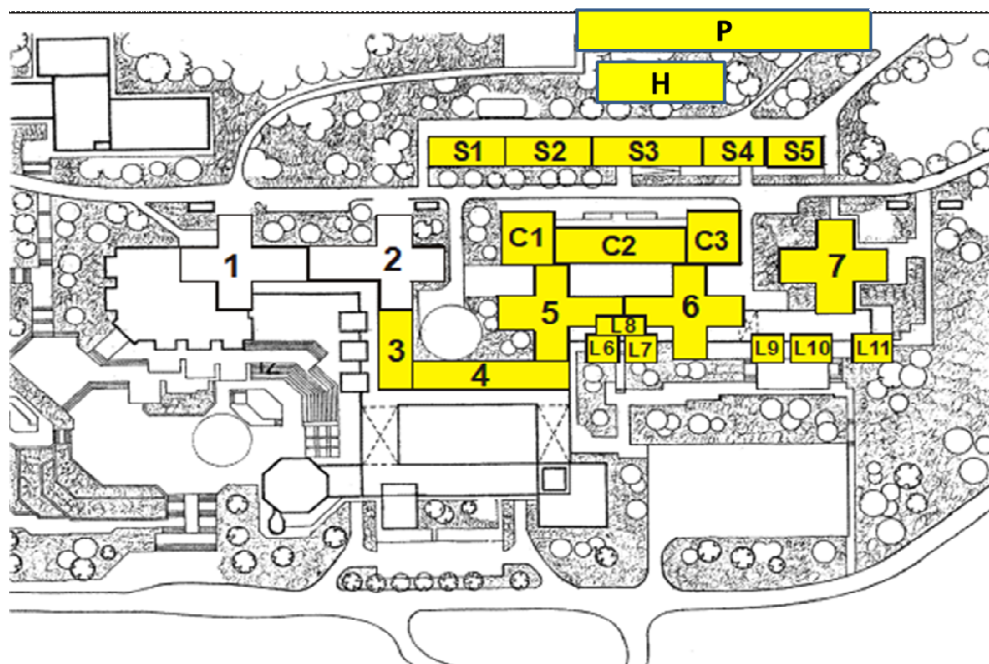
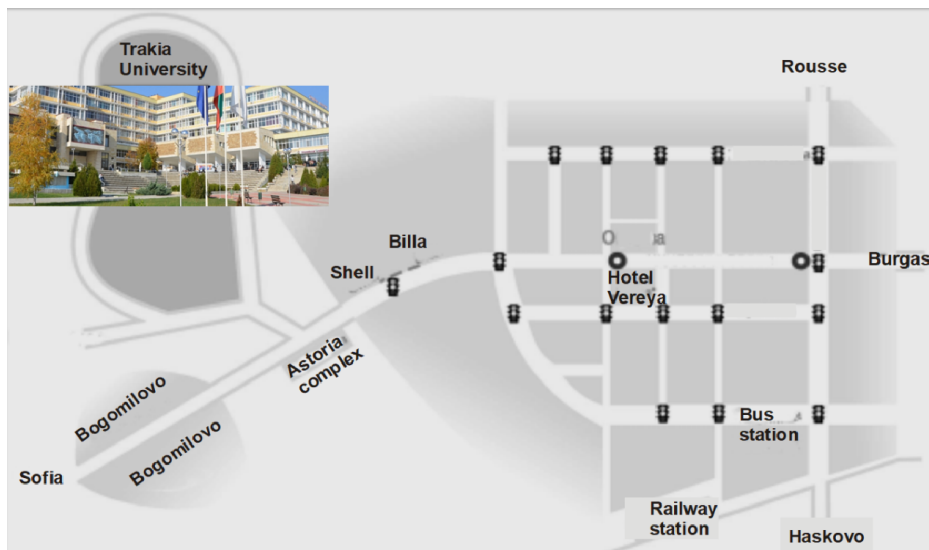
English language program also makes a significant contribution to enhancing student and academic staff mobility under the Erasmus International Program. Our future ambition is to try to develop and introduce English language training in the two additional Master's programmes "Veterinary Administration" and "Sanitary Microbiology and Food Safety" as well as in accredited doctoral programs and postgraduate courses.

4. FACILITIES AND EQUIPMENT

4.1. FACTUAL INFORMATION

4.1.1. Location and organisation of the facilities used for the veterinary curriculum

The FVMSZ is located in the main campus of the Trakia University. The latter is situated on a hilly slope with southeast exposure, a few kilometers west of Stara Zagora. The campus houses also the TrU Rector Administration's offices, as well as the training bases of the Faculty of Agriculture and the Faculty of Economics. The campus includes also student dormitories, the canteen, shops and related infrastructure.



Legend: buildings 1, 2 – Faculty of Agriculture; buildings 3, 4, 5, 6 and 7 – Faculty of Veterinary Medicine; L6–L11 – lecture halls; C1–C3 – clinical diagnostic unit; S1 – equine hospital; S2 – farm animal hospital; S3 – Biobase; S4 – small animal hospital; S5 – infectious and parasitic diseases section; P – pastures; H – horse stables.

The map above illustrates the different buildings at the campus. The FVMSZ is situated in buildings 4–11. The clinical diagnostic unit is located in modules C1 – C3, and teaching animal hospitals are in modules S1–S4. The S5 is the infectious and parasitic diseases section and isolation facilities.

4.1.2. Premises for lecturing, group work and practical work

Lecture halls (LH) used by the FVMSZ are as follows:

- LH № 6 – 180 places;
- LH № 7 – 144 places;
- LH № 9 – 144 places;
- LH № 10 – 144 places;
- LH № 11 – 62 places
- Total number of places: 674

The numbering of lecture halls is common for the university. When necessary, the FVMSZ uses also the other lecture halls (LH 1–LH 5) each with 144 places. Each lecture hall is equipped with two laptops and multimedia equipment.

The premises used by the main structural units of the FVMSZ (study labs, practical training labs, seminar rooms) as well as respective training and research equipment are fit to their specific requirements. Information for departments' infrastructure follows below:

Department of Animal Husbandry

- *Animal Genetics and Breeding Unit:* The unit has 2 rooms for group work, 24 places each, immunogenetics lab, statistical analysis lab, auxiliary rooms. A room from group work with 24 places is designed for molecular biology training.
- *Ecology and Radioecology Unit:* Disposes with a room for group work with 24 places and a research lab.
- *Animal Hygiene and Ethology Unit:* Disposes with 2 rooms for group work with 15 places each and a lab for practical work.
- *Animal Nutrition and Dietetics Unit:* The unit has a lab for practical work (24 places), research lab of veterinary sanitary expertise of fodders (5 places), lab for analysis of animal foods (3 places).

Department of Veterinary Anatomy, Histology and Embryology

- *Cytology, Histology and Embryology Unit:* The training of subjects taught at the unit is done in two labs for practical work with 10 and 24 places. Also, there is a research lab with 2 work places.
- *Veterinary Anatomy Unit:* Disposes with a room for group work with 25 places, two rooms for training in systematic anatomy (15 places each), two room for group work in topographic anatomy with 12 places each, 2 research labs, dissection hall, maceration hall, 5 refrigeration chambers, taxidermy lab, museum, photolaboratory.

Department of Pharmacology, Animal Physiology and Physiological Chemistry

- *Chemistry Unit:* The training of students is done in 3 practical training labs, each with 15 working places; a changeroom for students with lockers, and a research lab of ecological chemistry. The equipment used for tuition and research includes: UV/VIS spectrophotometer DR 5000 (Hach-Lange, Germany); thermostat LT200 (Hach Lange, Germany); magnetic stirrer (Hach Lange, Germany); UV/VIS spectrophotometer Metertech SP-8001 (Metertech Inc.); Thermal printer DPU 414

(Seiko Instruments Inc.); digital waterbath Memmert (Memmert GmbH + Co.); pH-meter Consort C931; 2 analytical scales KERN PFB, centrifuge Heraeus Labofuge 200 (Thermo, Electron Corporation); binocular digital microscope; KA_KS 130 Basic Shaker.

- *Veterinary Pharmacology and Pharmacy Unit:* The training in pharmacology is done in 2 practical training rooms (24 and 16 places) equipped with PC stations and multimedia projectors. The equipment used for training and research included analytical and technical balances, low-temperature freezer; CO₂ thermostat; refrigerated centrifuge, pharmacokinetic software; photo documentation system; inverted microscope; generator for emergency power supply; a Class II biological safety cabinet.
- *Biochemistry Unit:* The unit has 2 labs for practical work (20 and 22 places) and a fully equipped research biochemistry lab.
- *Animal Physiology Unit:* The rooms for group work are two, with 24 and 15 places respectively.

Some of practical training sessions in animal physiology are developed using the interactive training platform PTB4153 Human and Animal Physiology System (AD Instruments). Modules are equipped with software LabTutor Teaching Suite and PowerLab 26T hardware. The equipment kit allows performing a number of animal physiology experiments – registration and visualisation of parameters in frogs, earthworms and humans (blood pressure, ECG, heart sounds, peripheral circulation, cardiovascular effects after exercise, respiration physiology – measuring of lung volumes and lung capacities; cardiorespiratory effects after exercise; EEG). Another part of the study content is given under the form of presentations in the e-learning module. E-learning manuals allow performing practical training sessions both in Bulgarian and English.

Department of General and Clinical Pathology

- *Pathoanatomy and Histopathology Unit:* The unit has 3 rooms for group work with 25, 16 and 14 places respectively; a room for practical work with pathoanatomical specimens collection (20 places), histopathology lab (11 places), cytopathology lab (8 places) and a preparatory premise. The training in cytopathology and histopathology, as well the major part of training in normal cytology and histology is carried out in specialised micromorphology lab with 74 places (Hall No. 8). It is situated on 31 m² and is equipped with 40 modern microscopes, multimedia projector, interactive whiteboard, and monitors for demonstration of histological lesions on 3rd year students.

Pathoanatomy training is also done in an autopsy hall with total area of 750 m², refrigeration chambers for carcasses, changeroom with lockers, sanitary and auxiliary premises. The main hall has also auxiliary rooms for storage of disinfectants, 3 carcass chambers – one outside the building with area 36 m² at 4 °C; and two inside (36 m² and 8 m² at -18 °C). There is a filter room equipped with rubber aprons, boots, gloves and facemasks.

The unit disposes with a room for group work in general pathology and a self learning room, 3 histopathological labs and museum. The museum collection comprises about 1000 macroscopic preparations illustrating different diseases in birds and animals. The museum has a histothèque with more than 250 slides with histological lesions of diseases. The autopsy room is equipped with inox steel autopsy tables, various instruments and a basic autopsy set, sinks, hot water high-pressure cleaner, ventilation and electric hoist for large animals.

All carcasses referred for autopsy are stored in refrigeration chambers at 2-4 °C. The activities at the autopsy room comprise mainly necropsy of all animal species with research, diagnostic and training purposes. After work, the hall and all instruments are washed and disinfected with iodine disinfectants.

- *Functional Pathology Unit:* The unit has 2 rooms for practical work with 12 places each; 2 rooms for group work with 16 and 22 places; research fluorescence microscopy lab (4 places) and research immunology lab (4 places).

Department of Veterinary Microbiology, Infectious and Parasitic Diseases

The department is situated in building No. 7 at the 3rd, 4th and 5th floor.

- *The Veterinary Microbiology and Virology Unit* has 2 rooms for practical work with 20 and 24 places. They are equipped with modern binocular light microscopes, and sets for preparation of native and stained microscopic specimens. There is a preparation lab and autoclaving room for the training in bacteriology and mycology, and research and diagnostic clinical microbiology lab. Veterinary virology is taught in 2 rooms for practical work with 16 places each. There are also a research and auxiliary labs with a sector for cell culture maintenance.
- *The Epidemiology, Infectious Diseases and Preventive Medicine Unit* has a lecture/seminar hall with 45 places, a smaller seminar hall with 24 places; a room for training in epidemiology and preventive medicines (18 places), computer lab with 16 places. The equipment of a new laboratory of bee pathology with 20 working places is currently undergoing due to the engagement of the unit in teaching the obligatory subject Bee pathology.
- *Parasitology Unit:* The unit has 2 rooms for practical work with 24 places each, and a seminar hall with 42 places. As a part of the University Clinical Diagnostic Unit (UCDU), the unit hosts specialised research labs of helminthology, protozoology and arachno-entomology. There is also a collection of permanent preparations of parasitic species, and an auxiliary lab.

Department of Internal Diseases

The training of subjects taught at the department occurs mainly in the FVMSZ clinics. Also, there is a clinical training room with 28 places, 2 seminar rooms (for presentations) with 24 places each, 2 rooms for practical training with 16 and 18 places. The veterinary toxicology training is done in a specialised toxicology training lab with 30 places, and 2 teaching labs with 10 and 12 places. The Game diseases subject is taught in a specialised room with 35 places.

Department of Veterinary Surgery

The training of subjects taught at the department (general surgery, orthopaedics, anaesthesiology, radiology, physical therapy etc) occurs mainly in the FVMSZ clinics. The department has two rooms for practical work with 25 places, a physical therapy facility with 25 places, podiatry teaching lab with 25 places, and ophthalmology teaching lab with 25 places. The department has also a research lab with 3 working places and a library.

Department of Obstetrics, Reproduction and Reproductive Disorders

The training at the department is done in the three faculty clinics. A part of the practical training is realised at the time of mobile clinic training sessions or in farms, determined as sites for extramural training with contracts with the FVMSZ. Another part of practical training and seminars are held in two rooms in the Farm Animal Clinic, namely:

Obstetrics with 24 places and Gynaecology with 24 places. The new Animal Reproduction and Reproduction Health Control Ward, opened in 2017, has a reception room; demonstration room; assisted reproduction lab with 4 working places, lecture hall with 40 places. The reproduction and udder health lab at the Department has 6 working places for students.

Department of Food Hygiene and control, Veterinary Legislation and Management

- *The Food Hygiene, Technology and Control Unit* has a lecture/seminar hall with 62 places (hall No 11), 2 labs for practical work (28 and 30 places), fish diseases lab with 32 places (where laboratory training with students are performed). The unit has also a food physico-chemical analysis lab and sanitary microbiology lab. Auxilliary facilities are autoclaving room, auxilliary lab, library, reception hall.

At meat and milk processing enterprises, students are training in the local working facilities. The training in Laboratory Food Control is done in the microbiology lab of the department (12 places).

- *Veterinary Legislation and Management Unit*: The unit has 2 rooms for group works with 28 and 29 places respectively. There are also a specialised library and documentation archive. The unit manages also the museum collection “Veterinary activities in the Republic of Bulgaria” and the section of history of higher veterinary education in Bulgaria.

4.1.3. Premises for housing animals

1. Healthy animals

Healthy animals used for practical training are housed in a specially designed facility, termed Biobase. It is a part of the University Clinical Diagnostic Unit.

The Biobase is registered as an establishment under the Veterinary Act in force in the Republic of Bulgaria (**Appendix 4-1**). It has separate premises for housing cattle, sheep, sows, pigs, rabbits, poultry, dogs and cats. The permit issued to the FVMSZ by the Ministry of Agriculture and Foods, and Bulgarian Food Safety Agency for using experimental animals in training of students (**Appendix 4-2**) refers to housing of 3 horses, 1 donkey, 7 cows, 20 sheep, 7 goats, 41 pigs, 10 dogs, 6 cats, 800 frogs, 89 mice, 82 rats, 6 guinea pigs, 4 hamsters, 37 rabbits and 37 chickens.

The conductance of research experiments requires a special permit for each specific experimental design, issued by the BFSA (see 5).

2. Isolation facility

The animal isolation (quarantine) facility to the Infectious and Parasitic Diseases Ward is located in a building with a length of 35 m and width 12 m. The total built area is 420 m². Two entrances are available. One of them (from north) is equipped with a ramp for loading/unloading of large and small ruminants, horses, pigs and poultry. If necessary, the entrance serves for delivery of fodders, bedding etc. for accommodation of patients as well as for disposal of the manure and used bedding. The second entrance (from east) is for staff and students in charge of patients. The isolation facility has two zones. The so-called “clean area” comprises a corridor, manipulation room, changeroom, storage room, and WC/bathroom.

The second area is designed for accommodation of isolated animals. It has separate sections for housing large and small ruminants, pigs, dogs, cats, horses, rabbits and poultry

Accommodation boxes are separated from the corridor with a metal door that is locked so that the patient could not leave the box. In the corridor, there is a crush for manipulations with large animals, when this cannot be done in the box. All premises are supplied with window insect nets. A thermometer and a hygrometer are available in every box for monitoring of microclimatic conditions.

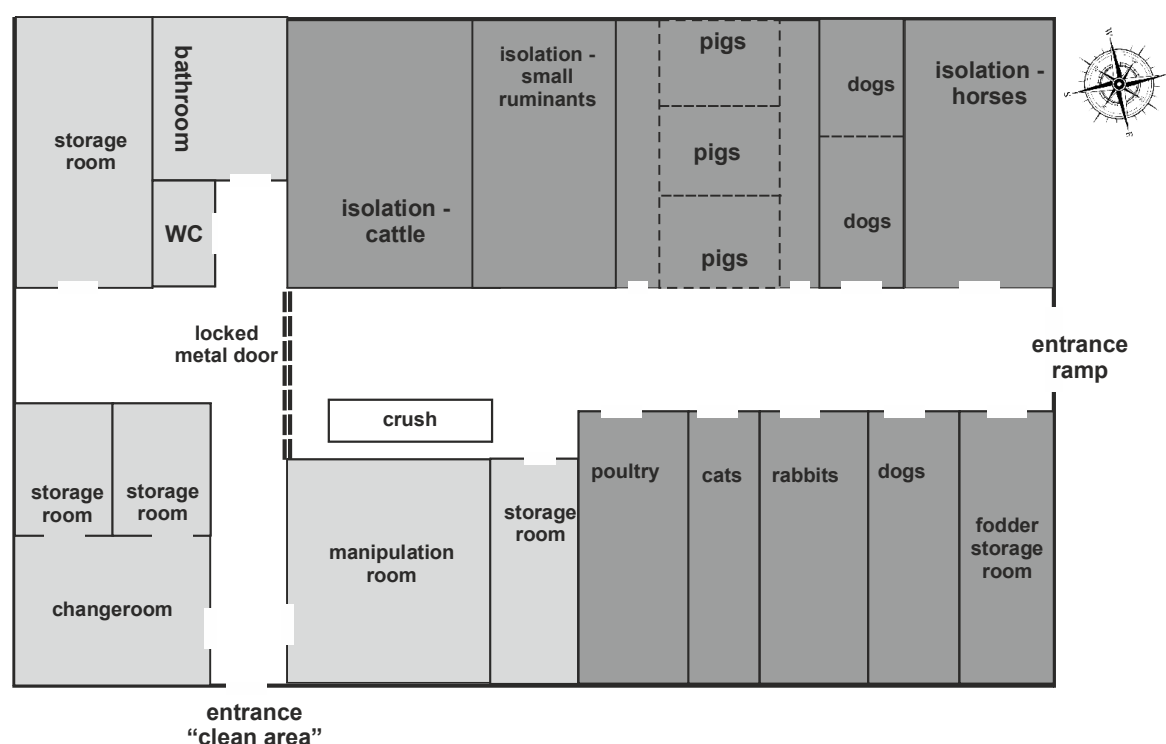
In front of the premise where the patient is housed, there is a disinfecting mattress soaked with disinfectant according to the detected disease.

The box for large ruminants is divided in two parts: one (area 10 m²) for accommodation of up to 3 animals, and a second one (area 10 m²) for a cow with a calf. The box is supplied with concrete manger and metal automated drinkers. The flooring is from granite tiles.

The box for small ruminants (19 m²) is lined with granite tiles, and equipped with metal manger allowing a good cleaning, washing and disinfection.

The premise for pigs is divided into 3 boxes (each with area of 4 m²) and two service corridors. Every box is equipped with metal feeders and nipple drinkers. The floor is concrete.

The premises for dogs are 2. The first one consists of two rooms of 7 m² each. In the anterior part are cages for dogs, and the posterior part is designed for a bitch and her litter. The floor is concrete. The second premise (area 15 m²) is equipped with cages. The floor is from polished concrete.



The box for horses has an area of 15 m², padded walls and rubber flooring. It is mainly designed for housing horses with tetanus, that is why there are no feeders and drinkers; the latter are introduced if necessary.

The rooms for rabbits, cats and poultry are with area of 15, 15, and 25 m² respectively with mosaic flooring and are equipped with appropriate metal cages.

Patients referred to isolation facilities are suspicious or with confirmed infectious or parasitic diseases caused by risk group 2 pathogens.

1. The animals are unloaded at the ramp at the northern entrance of the building and brought to the respective box with a disinfecting mattress.
2. Throughout the period of stay, the premises are locked except for the time the animals are cared for.
3. The staff, students and instructors enter the isolation facility through the east entrance, change their clothing with protective suits and only then are admitted to the area with the isolation boxes. Disinfection mattresses are placed at the entrance of the building and at the transition to the animal housing area.
4. Work with animals is done with disposable latex gloves, safety glasses and a respiratory mask.
5. After service or treatment activities, protective clothing is destroyed.
6. After service, the staff and students must pass through the bathroom.

The waste products (fodder residues, bedding, manure) are collected in plastic containers, treated with a of NaOH or glutaraldehyde solution with concentration of 4% and 2%, respectively. Exposure time is 24 hours, then wastes are destroyed with those from the Biobase. The carcasses of the dead animals are disposed in the FVMSZ morgue.

Consumables, syringes, needles, tools, etc. disposable consumables used in the handling of quarantined animals as well as protective clothing are disposed as described.

A complete disinfection protocol has been developed and implemented in the isolation facility (**Appendix 4-3**). Disinfections are recorded in checklists.

Re-planning and complete renovation of the isolation sector is forthcoming. The aim is to meet the requirement to provide separate outer entrance for individual animal species to prevent the crossing of the traffic routes of the different animal species, as well as to ensure independent cleaning and services. The renovation is planned for the second half of 2019. The necessary funds are provided and a public procurement contract for the construction and repair works is under way.

4.1.4. Premises for clinical activities

Small Animal Clinic

This is one of the most active structures at the FVMSZ. The initial project was made for its functioning only as a surgical clinical sector, but over the years it has evolved into a complex unit for diagnostics and treatment of pets. The Small Animal Clinic has the following facilities:

- reception room
- consultation room
- emergency and critical care unit
- pre-operative room
- two aseptic surgery rooms
- reanimation room
- septic surgery room
- obstetric surgery unit
- ophthalmology unit
- dentistry room
- endoscopy room

- echography and electrocardiography room
- manipulation room
- changeroom to the aseptic surgery room for the staff
- changeroom to the aseptic surgery room for students and specialisants
- changeroom for students
- sanitation facility
- room for storage of medications and consumables
- sterilisation rooms (for septic and aseptic surgery)

The *hospital* to the Small Animal Clinic has:

- canine inpatient ward – 16 places
- feline inpatient ward – 12 places
- manipulation room
- sanitation facility
- storage room
- staff room

The equipment of the respective units in the Small Animal Clinic comprises:

- *Surgery ward.* Aseptic surgery rooms are equipped with 2 anaesthetic machines, patient monitor, infusion pump, thermocautery device, phacoemulsifier, operating microscope, vacuum-pump, 2 surgical lighthoods, 2 X-ray illuminators
- *Emergency and critical care unit.* The emergency and critical care ward in the UCDCU was designed according to ECOVE recommendations to provide first-aid to critically ill patients. It allows oxygen therapy, intubation of emergency patients, assisted ventilation, invasive and non-invasive monitoring of vital functions. The ward is equipped with device for electrocardioversion.
- *The Obstetric, Gynaecology and Reproduction Ward* has a separate aseptic surgery room, canine ovariohysterectomy (spay) simulator, possibilities for ultrasound pregnancy checks; cytological diagnostics; planned and emergency Caesarean sections; surgery of the soft birth channel; preparation of spermogrammes and andrological exam; artificial insemination; diagnostics and therapy of mammary gland diseases, neonatology etc.
- *The Internal Non-Infectious Disease Ward* profits from all modern devices for diagnostics, monitoring and therapy of internal diseases; four-channel ultrasound (cardiography and Doppler), fibrogastroscope, videoendoscope (purchased in 2017), veterinary electrocardiograph etc.
- *Ophthalmology unit.* It is equipped with direct ophthalmoscope, slit lamp, electroretinograph, indirect ophthalmoscope with videocamera, vitreous aspiration and cutting device, tonometer.
- *Endoscopy room* – equipped with fibrogastroscope, videoendoscope, vacuum aspirator.
- *Dentistry room:* equipped with two veterinary dental units, ultrasound scaler, anesthetic machine, hydraulic table with dental plot. The instrument set allows performing orthodontic and endodontic treatment, and prosthetic dentistry.
- *Echography room:* equipped with echograph and electrocardiograph.
- *Sterilisation room:* equipped with autoclave, dryer, ultrasonic bath.

Farm Animal Clinic

The Farm Animal Clinic premises comprise:

- reception room
- staff room
- room for examination and treatment of small ruminants, pigs and poultry
- room for examination and treatment of large ruminants – cattle and buffaloes
- surgery ward

Recently, a new surgery ward was opened in the Farm Animal Clinic with aseptic surgery rooms for large ruminants. A neonatology sector is currently under construction.

The farm animal hospital has 9 places for large ruminants, facilities for small ruminants, separate facilities for pigs, poultry, and rabbits.

The Farm Animal Clinic is equipped with: three-channel veterinary electrocardiograph VE300; portable ultrasound, surgery tables, portable surgical lightheads; surgery table for small ruminants; 2 instrumental tables; 2 manipulation tables, infusion stands; water baths; ELISA reader for hormonal assays; PC configuration with laser printer; multimedia projector; 2 cold light vaginal speculums for small ruminants; dystocia simulator; dummy cow for obstetric examination.

The main serviced species in the clinic are cattle, sheep, goats, pigs and poultry. The main activities of the clinic comprise diagnostics, ambulatory and in-hospital treatment of diseased farm animals. The staff assists in the organisation of extramural practical training of Farm animal diseases, providing patients for the practical training of students at the FMVSZ territory. The Farm animal Clinic provide also services to research projects, organisation of seminars and training, expert consultations on all issues related to farm animal technologies.

Equine Clinic

The Equine Clinic of the FMVSZ is the only specialised clinic for diagnostics and treatment of equids at a national scale. It has a consultation room for examination of patients and clinical training of students with 27 places; aseptic surgery sector, equine hospital and teaching farriery.

The consultation and training room serves for initial examination of horses, and for performing routine diagnostic and treatment procedures, all septic surgical interventions and operations in standing position. The room is equipped with a crush for safe handling of animals. The room has also a box with insulated partially movable walls for casting and recovery of horses undergoing septic surgery in recumbency. Through an electric hoist mounted on the ceiling, anaesthetised horses are lifted and positioned on a movable operation table. The box is often used for reanimation of critically ill patients. The practical training of Non-infections Equine Diseases are also held in this room; as well as seminars with practicing veterinarians. That is why the room is supplied with three rows of desks placed amphitheatrically, and a large projection screen on the opposite wall.

The aseptic surgery sector is the only modern operation theatre for equids in the country. In this sector are performed all aseptic surgical interventions in recumbent horses. It is preceded by sterilisation room, room for hands preparation, anaesthesiology room and changeroom. Through a separate entrance, the animals enter the box for induction of anaesthesia and recovery from anaesthesia, whose floor and walls are cushioned. After induction of anaesthesia, horses are lifted and moved in the aseptic room supplied with machine for general inhalational anaesthesia under constant monitoring and vital

functions control. After the operation they are recovered in the same box until resolution of ataxia.

The equine hospital houses all hospitalised horses. The equine hospital has 7 large (4 x 4 m) and 2 small (3 x 3 m) stalls with rubber floors subject to wet disinfection, located in two rows, one reanimation box with cushioned floor and walls. The alley is equipped with sewage chutes with covered with grids for waste water evacuation. Each box has a feeder and automatic drinker. The lightning is both natural and artificial. All windows are secured with grilles. The air is kept clean by means of a ventilation system. There is a bath for horses in the hospital. Additionally, there are several service facilities for storage of concentrate and roughage, straw bedding for animals, as well as horse ammunition. The hospital has also a room for minor manipulations, staff room, room for students on duty, and a WC/bathroom. There are several paddocks for walking. All premises are with rubber flooring in compliance with modern biosecurity and welfare standards.

Teaching farriery. The farriery room is on the transition between the podiatry training room and equine septic surgery room. This location is very convenient for podiatry skills of students as after the training on carcass material (for instance, hoof trimming, normal and orthopaedic shoeing), they could practice on a live animal. In the centre of the farriery room, there is a forge for hot shoeing, and aside – a large table with clips and anvil. In the farriery room, there is a freezer for storage of carcass material (limbs).

The most important equipment of the Equine Clinic is as follows:

- dummy mare for obstetric exam
- fibrogastroscope
- ultrasonograph
- Equine dentistry file with Hausman speculum
- anaesthetic machine with assisted ventilation device
- vacuum aspirator
- patient monitor
- arthroscope with specific instrument set
- portable X-ray unit.

Radiology and computed tomography ward

The ward comprises radiology unit and CT unit and operates with last-generation equipment. The working protocols are compliant with EC and world standards for diagnostic imaging studies. All activities are in line with the curriculum of “Veterinary Radiology” course for 4th year students and “Small Animal Diseases” for 5th year students

The radiology unit is equipped with two X-ray machines (one for small and one for large animals PHILIPS-Bucky CS4, Germany), dental X-ray unit Kodak 2000 - Trophy (USA), radioscopy machine PHILIPS BV 25 N/HR (Germany); X-ray film digitizer Q-CR ACE of Image Information Systems (UK). All digital images are stored for 10 years in a separate server. The licensed software permits convenient classification, processing and sharing of images through the network

The computed tomography unit is equipped with the CT-FIDEX-CT/FL/DR system (Animage LLC, USA), allowing performance of digital radiography, radioscopy and computed tomography (high definition cone beam CT with preview, extensive viewing software, data base and DICOM compliance) in small animals. The processing of images is done by ultra-fast image reconstruction software COBRA 7© (Exxim Computing Corporation, USA).

Physical therapy ward

The main activities of the ward include treatment of patients from the three FVMSZ clinics by physical modalities and practical training of students. The ward is situated close to the clinics. The student training room is directly linked to the functional room.

The diagnostic and therapeutic equipment is located in separate isolated sectors according to used physical modalities and course topics: sector 1 – for ultrasound therapy, phonophoresis, magnetotherapy; sector 2 – Low-voltage low-frequency electrotherapy, TENS and electrophoresis; sector 3 – medium and high-voltage high frequency electrotherapy; sector 4 – laser therapy (3 types of lasers) and phototherapy (IR, VR, UV). The room has a crush for restraint of large animals.

The student training room has 20 places and is equipped with whiteboards, portable patient table and a large working desktop. Students are not allowed to work independently in the ward, but participate actively in procedures under supervision by instructors. They accompany the animals to the hospital wards, restrain them and clean.

Animal Reproduction and Reproduction Health Control Ward

The ward was opened in 2017. It consists of a reception room; demonstration room; assisted reproduction lab, lecture hall and practical training room. The ward is equipped for performing the following main activities: assisted reproductive technologies; semen analysis by means of computerised system; cryoconservation of semen; semen microscopic evaluation; endoscopic artificial insemination of dogs; artificial insemination of farm animals and equids; modern ultrasonography of genitals and pregnancy monitoring; obstetric help for dystocia; diagnostics and treatment of reproductive disorders in all animal species (colour Doppler, pulsed-wave Doppler, 3D ultrasonography, transvaginal ultrasonography).

Anaesthesiology ward

The ward was established in 2017 as a separate unit. It includes three anaesthesiologists: one is responsible in farm animals' anaesthesia; one - for anaesthesia of horses, and one - for small animals. When there are no patients in farm and equine clinics, the staff works in the quite busy Small Animal Clinic.

4.1.5. Premises for study, self-learning, catering

On the territory of the student town there is a canteen, cafeterias and shops with a capacity corresponding to the total number of trained students and the number of lecturers at the University. Students in FVMSZ are eligible to use the canteen at preferential prices. Self-training and learning conditions are offered by 3 large computer labs, the rooms at the university library and the self-study room at the individual departments. The number of lockers, toilets and baths is sufficient.

At the territory of the TrU, free wireless access to Internet is available. The services of the library, the sports halls, stadiums and swimming pools are free of charge.

4.1.6. Vehicles

The extramural practical training (mobile clinics) is realised with 8 passenger buses and one microbus from the university vehicle park. The latter is constantly undergoing modernisation, although financial shortages still impede this. During the last years, 3 new passenger buses have been purchased for transportation of students.

Apart the described transportation vehicles, the FVMSZ owns a veterinary ambulance, and a two-place camper for large animals, both of them licensed for transportation of animals by the Ministry of Agriculture and Foods, and the Bulgarian Food Safety Agency (**Appendix 4-4**).

Vehicles for animals are submitted regularly to thorough disinfection performed by authorised faculty staff after every transportation session.

The FVMSZ also has a specialised vehicle for transporting animal corpses and animal waste products. It is leased to a specialised company authorised by the BFSA for removal and transport of the carcasses to the incinerator. Thanks to this vehicle, the refrigeration chambers of the autopsy room as well as those of the Department of Anatomy, Histology and Embryology are continuously freed from corpses.

4.1.7. Equipment used for clinical services

It is described in detail above along with the description of premises for clinical activities

4.1.8. Description of the strategy and programme for maintaining and upgrading the current facilities and equipment and/or acquiring new ones.

The strategy for current material base upgrade comprises periodic meeting of the Dean and Associate Dean of Clinical Activities with the head of UDCU units and department heads. On these meeting, the need and possibilities for equipment and modernisation of existing technique as well as purchase of new items are discussed. Technical specifications for approved equipment (within the framework of the budget) are deposited in the Public Procurement Department, which begins a procedure for their purchase and delivery.

The specific equipment, whose purchase is already initiated, consists of a mass spectrometer needed for the training of students and clinical toxicology and pharmacology services rendered by the respective department. Participation of the FVMSZ in a national research project for purchase of magnetic resonance imaging unit is intended; it will be used for training of students, PhD students and specialisants, and for UDCU patients in the three clinics. In our opinion, the policy of modernising the training, research and diagnostic infrastructure should be further sustained and developed.

4.1.9. Biosecurity and safety policies

The problems of the biosecurity of the students, the academic and non-academic staff at the FVMSZ are a constant concern of the faculty and its main structural units. The aim is to prevent incidents involving traumatic injuries, infections or other risks arising from the manipulation of live animals, animal carcasses or raw materials of animal origin. In addition, students are obligatorily taught how to guarantee their personal safety. For this purpose, all students attending practical training sessions should be provided with personal protective clothing, boots, aprons and other personal safety equipment.

On referral of patients in the clinics (mainly dogs), owners are required to bring the passport certifying the immunization schedule of the animal.

When working with cadavers, special protection clothing is provided (boots, rubber aprons, helmets, goggles, hats, gloves). On entry and exit of premises where students work with necropsy material, they pass through a filter unit.

In the radiology unit, students are required to wear protection lead aprons, lead gloves and neck shields.

The contact of students with patients with tentative diagnoses for dangerous diseases is restricted until a final diagnosis is posed. When rabies infection is suspected, a preventive vaccination is performed and the costs are paid by the FVMSZ. In cases of any illness caused by physical agents, the treatment costs are also covered by the FVMSZ and disciplinary actions in case of instructor's fault are considered.

The permanent control on the utilisation of wastes, both non-toxic and hazardous is exerted through a contract with a specialised firm for disposal of hazardous biological wastes – Lovamed Group (**Appendix 4-5**). Also, the TrU has a contract with the EkomaChim Co. for transportation, treatment and decontamination of chemical wastes.

The Statute for Operation and Management of the FVMSZ includes a Waste Management Program valid for all its structural units.

4. 2. COMMENTS

During the last decade, the material base for practical training of students has been substantially renovated and improved. The available buildings are constantly optimised and investments in educational, diagnostic and research equipments are continuously made. Of course, compared to conditions in developed EC countries, this occurs in conditions of strongly restricted funds.

4. 3. SUGGESTIONS

In a short-term plan, the intentions of the FVMSZ include:

- Construction of semi-open stalls for horses to the Biobase of the faculty;
- Complete redesign and renovation of the isolation facility to the Infectious and Parasitic Diseases Ward;
- Improvement of the vertical and horizontal infrastructure surrounding veterinary teaching hospitals;
- Construction of a modern vivarium for teaching and research purposes;
- Further equipment of the physical therapy ward by purchasing equipment for shock-wave therapy, K-laser, Bioptron light therapy system with linear polarized light; treadmill hydrotherapy bathtub; cryotherapy equipment etc.
- Further optimisation of field practical and mobile clinics training. Implementation of an effective system to provide more patients at the Farm Animal Clinic is forthcoming. Contracts have already been signed with several pig holdings to ensure access to them or transport of sick animals to the clinic;
- Thanks to the contract for the use of the faculty vehicle for transporting animal corpses, the provision of the morgue with fresh material for the needs of the learning process will be significantly improved.

5. ANIMAL RESOURCES AND TEACHING MATERIAL OF ANIMAL ORIGIN

5.1. FACTUAL INFORMATION

5.1.1. Global strategy of the Establishment about the use of animals and material of animal origin

The global strategy of the FVMSZ to supply the learning process with live animals, animal carcasses and animal raw materials is subordinated to the understanding of the primary role of practical training and building permanent habits and skills for a successful start in the profession of veterinary surgeon. The faculty authorities are conducting a policy of sustained provision of patients to the faculty teaching hospitals (clinics), of healthy animals to the Biobase, and carcasses to the animal morgue. This turns to be a challenging process considering the general state of livestock farming in the country and the region. Regardless of the difficulties, the faculty management succeeded in the provision of the educational process, both through a policy of attracting more patients to the clinics and the autopsy hall, as well as through the use of regional animal husbandry facilities as a teaching base. In the recent years, this process has been greatly intensified, especially with regard to attracting productive livestock and equine patients and providing more fresh carcasses. This was achieved by improving the work conditions at clinical facilities on the one hand and, on the other, the diversification of advertising practice.

A direct confirmation of the above is the filmmaking of the FVMSZ activities for regional cable televisions, the making of a virtual tour of the faculty from Google business view, the use of on-line technologies for advertising faculty services and activities, the making of new arrangements with livestock business and the company responsible for the utilisation of carcass wastes in the region.

5.1.4. Organisation and management of clinical activities and clinical practical training at the VTH

The major part of clinical practical training of students takes place in the UCDU. Also, is it strengthened by the traditionally established mobile clinic form of training and other forms of work in the field.

All sites and premises for preclinical and clinical training of undergraduate students, both intramural and extramural, are clinics and animal rearing establishments registered in line with the national regulations and are subject to regular supervision by authorised agencies. This guarantees that establishments are compliant with national vocational standards.

All details regarding the operation of UCDU are described and regulated by the Statute for the organisation, operation and management of the FVMSZ approved in 2017.

The UCDU territory is under controlled, restricted access regime for people and vehicles in order to provide optimal conditions for main activities and safety of people and animals. In addition to the three main clinics, it also includes a Laboratory Diagnostic Center with: clinical (haematology, blood biochemistry and urinalysis) lab; mycotoxicology lab; diagnostic consultative centre of infectious diseases with labs of clinical microbiology, immunology, virology, mycology and herd health; parasitology lab; reproduction and udder health lab; pathomorphology lab; fodder analysis lab; bee pathology lab; fish pathology lab; veterinary sanitary expertise and food control lab.

UCDU has a powerful server and computer network linking all units and reflecting: referred and treated patients; performed analyses; dispensed drugs, materials and consumables. The UDCU is headed by Associate Dean of Clinical Affairs, Internships and Practices. UCDU clinicians, heads of clinics, heads of departments, ward and lab managers are directly subordinate to him. The University Clinical Diagnostic Unit has recently purchased a new generator for emergency power supply.

The teams during working days, evening shifts from 4:00 to 9:00 PM, and weekend and holiday shifts (8:00 AM to 4:00 PM and from 4:00 to 9:00 PM) are scheduled in advance and provided to the heads of the respective clinics. After 9:00 PM, in case of emergency, teams are gathered by phone call.

If a surgical intervention or an invasive study is necessary, owners shall declare by signing an informed consent sheet that they are familiar with all the circumstances and risks of the treatment, and accept them. Entry of external persons and owners is allowed to the pre-operative examination room, unless necessary to provide assistance in case of frightened or bad-tempered animals. Owners can visit the hospitalised animals during working hours with the permission and knowledge of the physician in charge or the clinic ordinator.

In case of suspicion of a dangerous infectious or parasitic disease, the patient is referred to the Infectious and Parasitic Diseases Ward. Measures for isolation, safe work, disinfection, detection and control of the disease are taken in accordance with written instructions given by the head of the ward. If ambulatory treatment is sufficient, the patient is given to the owner. If in-hospital treatment is required, the animal is placed in the appropriate hospital and cared for according to prescriptions of the attending physician. All changes in the condition of the animal are written down in its personal record.

All instructors on duty are required to follow strictly the prescriptions of the attending physician and reflect this in the relevant documentation. The monitoring of hospitalised patients and filling in data in their personal records is entrusted to individual students or a group of students under the supervision of the attending physician or the instructor on duty.

The discharge of treated animals is done during working hours by the attending physician, after the legitimation of the owner and payment of all necessary fees.

Animal carcasses are referred for necropsy in the autopsy room of the pathoanatomical diagnostic sector. All patients with lethal outcome are necropsied unless the owner has refused an autopsy; in this case he has to declare this in a written form. Each corpse is accompanied by a form indicating: the unit or structure of origin, the patient's ID number and signalment data, name of the owner; brief disease history and clinical data, primary diagnosis, type of required examinations, and signature of the instructor on duty. A copy of the autopsy protocol with a pathoanatomical/pathological diagnosis is applied to the main documentation at the appropriate clinic.

Euthanasia is performed in line with the requirements of the Veterinary Practice Act when all necessary documentation is available. Carcasses are registered and necropsied by the pathologist on duty. If bacteriological, virological or parasitological studies are needed without complete autopsy, a specialist from the respective department is called to collect the necessary specimens

5.1.5. Collection, storage and destruction of cadavers and material of animal origin for training in anatomy and pathology

Practical training in osteology uses pretreated and dried bones and over 30 whole skeletons of various domestic and wild animals. The Department of Anatomy has over 4,000 bones of domestic animals, allowing students to work independently during practical sessions. In addition, students can take bones from the departmental collection for self-learning at home. The other anatomy courses are mainly visualised with wet and, to a lesser extent, dry preparations. Fresh material (viscera, brain, eyes, hooves, mammary glands, etc.) is obtained from slaughterhouses or from small ruminants, pigs, horses and carnivores that have been autopsied in the clinics. Such patients are mainly used for the making preparations of blood vessels and nerves.

Preparations and animal carcasses are stored in five freezing chambers, each of 8 m³. The department also has six 12 m³ basins for short-term storage of wet preparations in aqueous solutions of sodium chloride, potassium and sodium nitrate, phenol, glycerol, ethanol etc (alone or in combination).

Formalin is used very rarely, only at minimum concentrations and always mixed with other harmless substances. Its use is limited to a small part of the practical training in topographical anatomy (2 hours) in premises, away from the main training facilities of the department. The Museum of Veterinary Anatomy has skeletons of different animals as well as dry and wet preparations. The collection is constantly enriched with new exhibits and is visited by many guests of the FVMSZ. A new exhibition hall for the exposition of the anatomical museum will be soon completed.

5.1.7. Hands-on involvement of students in clinical procedures

At the veterinary teaching hospitals

Practical training (laboratory, field, clinical) is held in groups. A study group is formed by no less than 6-8 students and no more than 10-12, depending on the specific subject.

Clinical training related to small animal diseases are conducted by clinical training modules. Each group of students spends two full weeks at the Small Animal Clinic. The day begins with visiting hospitalised patients, where students are acquainted with the history of the disease, the results of the examinations, the diagnosis, the treatment and the manipulations that have been made and are about to be carried out.

In this clinic, they also get acquainted with the schedule for the planned surgeries in the surgery ward. According to the upcoming tasks, the students are assigned and included in all activities of the clinic under the supervision of the teachers on duty and the physicians in charge. During the rest of the time, the students participate in the reception and examination of coming patients. Students have access to patient hospital records and, under the supervision of a lecturer, participate in completing the documentation.

Additionally, fourth and fifth-year students are engaged in individual duty according to a pre-defined schedule in other clinics and wards, where they are involved in admission procedures, examinations, appointment of laboratory and other diagnostic tests, and then in the care of sick animals. They are particularly actively involved in the provision of the necessary health care for the patients in hospitals at the individual clinics.

In addition to widespread participation in the activities of FVMSZ clinics and UCUDU, students also have free access to autopsies, which are made only at the autopsy hall. Students are also involved in collection and sending organ samples and materials for laboratory tests - histopathological, bacteriological, virological etc. They are involved in the writing of autopsy protocols as well as accompanying letters or notes to the reception labs or institutions.

Extramural practical training

The mobile clinic is a specific form of practical extramural clinical training at the FVMSZ performed at agricultural farms and private owned farms (backyards). The FVMSZ has signed contracts with most of them. Field practical sessions are also carried out in the University experimental farm. The most important places where mobile clinic training is carried out are 27 animal facilities presented in **Appendix 5-1**.

Mobile clinic practical sessions are conducted according to a schedule for each semester, prepared by the Associate Dean of Clinical Activity, Internships and Practices. The hours spent in mobile clinic training are included in the course hours of 4th and 5th year students. The instructors responsible for mobile clinic training are from the clinical departments, as follows:

- *Department of Veterinary Microbiology, Infectious and Parasitic Diseases:* Prof. Iliya Tsachev; Prof. Mihni Lyutskanov; Assoc. Prof. Vladimir Petrov; Assist. Prof. Gosho Mihaylov; Assist. Prof. Plamen Marutsov; Assist. Prof. Georgi Zhelev, Assist. Prof. Koycho Koev; Assoc. Prof. Andrey Ivanov; Assoc. Prof. Petyo Prelesov; Assoc. Prof. Zvezdelina Kirkova; Assist. Prof. Petar Iliev; Assist. Prof. Nikola Nizamov.

Field training in infectious pathology and parasitic diseases covers: field epidemiological surveys in case of epidemics; group diagnostics (tuberculosis skin test, mallein test for glanders); group immunisations in line with the State Programme for Prophylaxis of the Republic of Bulgaria; group treatments against endo- and ectoparasites; prophylactic disinfections, disinsection and deratisations

- *Department of Obstetrics, Reproduction and Reproductive Disorders:* Prof. Nasko Vasilev; Assoc. Prof. Plamen Georgiev; Assoc. Prof. Stanimir Yotov; Assist. Prof. Anton Antonov; Assist. Prof. Anatoli Atanasov, Assist. Prof. Ivan Fasulkov; Assist. Prof. Manol Karadaev

Field training provided by this department includes field gynaecological exams of ovaries and the soft birth channel, pregnancy checks, udder health checks with emphasis on subclinical mastitis detection (incl. rapid tests), neonatal pathology. Most commonly, a portable ultrasound Sonoscape S2 is used.

- *Department of Veterinary Surgery:* Prof. Mihail Paskalev; Assoc. Prof. Nikolay Goranov; Assoc. Prof. Galina Simeonova; Assoc. Prof. Svetozar Krastev; Assoc. Prof. Tsvetan Chaprazov; Assist. Prof. Roumen Roydev, Assist. Prof. Georgi Terziev; Assist. Prof. Vladi Nedev; Assist. Prof. Radka Garnoeva; Assist. Prof. Radina Vasileva.

Field surgical interventions are mainly castration of male animals (pigs); diagnostics and treatment of hoof diseases in cattle and small ruminants; dehorning of cattle; surgical treatment of wounds diagnosed during surveys. The department disposes of a portable crush for restraint, machine for hoof trimming, set of instruments for prophylaxis and therapy of hoofs, machine for dehorning; instrument sets for soft tissue surgery.

- *Department of Internal Diseases:* Prof. Roumen Binev; Assoc. Prof. Dian Kanakov; Assoc. Prof. Anton Russenov; Assist. Prof. Sasho Sabev, Assist. Prof. Ivan Valchev, Assist. Prof. Krasimir Stoyanchev, Assist. Prof. Lazarin Lazarov, Assist. Prof. Tsanko Hristov, Assist. Prof. Vanya Marutsova, Assist. Prof. Miroslav Mihaylov, Assist. Prof. Nikolay Nikolov

Field training in internal diseases comprise mainly field diagnostics of metabolic disturbances in large and small ruminants, digestive disorders in large ruminants, traumatic or not, collection of blood samples for screening herds for metabolic disorders ;

prevention of traumatic damage of forestomachs through ferromagnets. The equipment consists of combined Xpress-i Glucose/Ketone meters (USA); COR Mini food lab; VET ECG Ve-300; TRISMED model CARDIPIA 400.

5.1.9. Patient record system

The referred patient is registered with a serial number in the records of the respective clinic. When a sick animal enters, the clinic ordinator gathers initial information on disease history and informs the instructor on duty from the competent unit. The initial exam is carried out in the consultation room. Further needed consultations and analyses are written on the patient's record and specimens are sent to the appropriate laboratory accompanied with a letter or fiche where the results are filled in by lab staff. The radiological, ultrasound and endoscopic examinations are prescribed by the attending physician, and results are written on the patient's record. Diagnostic imaging pictures are stored in the electronic patient record and are also given to owners upon request.

The patient's records are completed in detail by the instructor on duty or an authorised student at the time of examination and treatment and signed by the attending physician. The latter is directly responsible for the patient from the referral to the discharge. Data entry in the electronic patient record is performed by the attending physician or instructor on duty within the working week.

5.1.10. Procedures developed to ensure the welfare of animals used for educational and research activities

All procedures to ensure the welfare of the animals used for educational and research purposes at the TrU in Stara Zagora comply with the requirements of Ordinance №. 20 of 01.11.2012 on the minimum requirements for the protection and humane treatment of experimental animals and the requirements for the use, breeding and / or delivery of the animals. These procedures include:

General requirements for the use of animals for educational and research purposes in the FVMSZ Biobase

All animal experiments, breeding, rearing and care for them in the faculty are conducted in a way that minimises distress, unnecessary pain, suffering, and permanent disability. When conducting experiments, the choice of the animal species is assessed in the light of the species' specificity and purpose of the study. Selected methods shall employ a minimum number of animals with a low degree of neurophysiologic sensitivity and experimental designs shall not result in severe pain, suffering, distress or lasting harm and at the same time, shall give satisfactory research and learning outcomes.

Evaluation and approval of research projects and training procedures using animals

For research projects, to obtain an authorisation, project leaders submit an application to the Executive Director of BFSA. In addition, the Animal Ethics Commission to the FVMSZ a.k.a. "Animal Welfare Team" consisting of 5 habilitated teachers who are well acquainted with the specificity of the problem of animal welfare, executes control functions in the evaluation of projects using animals for learning and scientific purposes. This commission advises all stakeholders on issues related to the acquisition, breeding, accommodation, care and use of animals in experiments.

At the FVMSZ, research experiments with animals are not carried out if another method or strategy, in which live animals are not used, is recognised in European Union legislation to achieve the desired result. For educational purposes and demonstrations in

which animals are killed, animal experiments are replaced by other methods of illustrating the learning material.

Main procedures guaranteeing the welfare of animals in the FVMSZ Biobase

- The Biobase of the FVMSZ has a Certificate of registration of animal establishment № 2401/23.01.2014, issued by the Regional Directorate of BFSA – Stara Zagora. The owner of the site is the FVMSZ. Only registered and tagged animals are housed in the establishment.
- The Biobase officer has a degree in veterinary medicine and has completed a training course on animal welfare.
- The Biobase staff is instructed to respect the welfare of the animals and has a practical experience of more than 3 years.
- The cleaning and disinfection of the premises comprises daily cleansing and removal of faeces in the rooms and cells; regular mechanical cleaning and disinfection of the premises and facilities; disinfection when replacing one batch of animals with another; daily cleaning of feeders; regular mechanical cleaning, washing, disinfection and renewal of cells, accessories, bottles and other equipment.
- The Biobase operates under controlled entry and exit of the site.
- Experimental animals to and from the Biobase are transported as required by Council Regulation (EC) № 1/2005 of 22 December 2004 on the protection of animals during transport and related operations. The consignor shall, by means of a written declaration, ensure that the animals are in good health for transportation and shall notify the recipient in advance of the date and time of delivery. The consignor and the carrier take all precautions with regard to loading and transport to avoid unintended animal suffering caused by injuries, inappropriate ventilation, high temperature exposure, food and water shortages, delays, etc. The transportation of sick animals and those with poor health is not allowed unless it is necessary for therapeutic or diagnostic reasons. The transport of females in advanced pregnancy and those likely to give birth during transport is not allowed. The animals arriving at the Biobase are unloaded without delay, registered and marked. After checking the transport documentation, the animals are housed in quarantine premises under conditions appropriate to their welfare. Transport and vehicle boxes are cleaned and disinfected after each use. New animals in the Biobase are quarantined for a period of time determined by a veterinarian and during the quarantine period, are not used for experimental and other purposes. The diseased animals are isolated from the others in a separate room and are subject to constant observation. They are immediately examined by a veterinarian and, where necessary, treated.
- Animals of incompatible species, of different age groups and sex in one room where this will lead to aggression and intolerance between them, as well as animal predators and prey are not accommodated together
- The health status of the animals in the Biobase is checked on a daily basis and results are recorded in a diary. A programme for health monitoring of the housed animals is implemented.
- All animals are provided with sufficient food and water, consistent with their species, age and physiological status and sufficient food space to avoid food competition. Feeders are regularly cleaned and disinfected. When wet food is used or the feed can easily be contaminated with water and urine, cleaning is done daily.

- All animals are provided with free and constant access to fresh drinking as per Ordinance №. 9 of 2001 on the quality of water intended for drinking and household use, by means of suitable drinkers or automatic watering systems.
- The animals are provided with a dry, absorbent non-toxic litter that does not collect dust, contains no infectious agents or pests and does not endanger their health. In addition, they are provided with appropriate materials and tools for the construction of lairs, sleeping areas, nests.
- The Biobase Officer organises the maintenance of appropriate hygiene in the facilities, by regular mechanical cleaning, washing, disinfection and renewal of cells, accessories, bottles and other equipment.
- All animals in the Biobase are housed in socially stable groups of compatible individuals, with the exception of animals kept in individual pens. When breeding animals in individual boxes (horses), they are in visual, auditory, olfactory contact with animals of the same species.
- All animals in the Biobase are provided enough space to express their natural behaviour.

Main procedures guaranteeing the welfare of animals used in research experiments at the FVMSZ

- Experiments with animals carried out at the FVMSZ are allowed only after positive evaluation by the Animal Ethics Commission (AEC) to the FVMSZ and authorisation order from the Executive Director of BFSA.
- The FVMSZ organises two training courses to provide the necessary theoretical and practical knowledge for manipulation and care of the experimental animals. The postgraduate course "Humane Treatment and Welfare of Animals Used in Experimentations" is conducted by faculty staff. It is targeted to all project managers using experimental animals. The second course " Humane Treatment and Welfare of Animals in Pet Shops, Kennels, and Shelters" is intended for owners and workers in said establishments and is approved by the BFSA. The lectures are held at the FVMSZ. The course started in 2008 and by the end of 2018, a total of 261 participants have successfully completed this course.
- The Animal Ethics Commission fulfils advisory and control functions on issues related to animal welfare, acquisition, accommodation, use and care. It advises members of scientific projects on limiting the number of animals used in experiments and ways to alleviate their pain and suffering, and keeps project participants informed about technical and scientific achievements regarding the application of these requirements. It also monitors the progress and results of projects, taking into account the effects on the animals used and ways to relieve pain and suffering.
- All experiments performed in VMFSZ that are associated with animal pain are conducted using general or local anaesthesia and using analgesics to ensure minimal suffering during and after the trial.
- At the end of the experiment, the veterinarian makes a full exam of each animal. When it is found in good health and is not a hazard to the environment and human health, it may be placed in a zoo or animal shelter.

Table 5.1.1. Cadavers and material of animal origin used in practical anatomical training

Species	2018	2017	2016	Mean
Cattle	20	21	16	19
Small ruminants	48	50	42	47
Pigs	52	47	38	46
Companion animals	18	20	14	17
Equine	16	18	15	16
Poultry, rabbits	20	18	20	19
Exotic pets	-	-	-	-

Table 5.1.2. Healthy live animals used for pre-clinical training (animal handling, physiology, animal production, propaedeutic)

Species	2018	2017	2016	Mean
Cattle	60	78	86	75
Small ruminants	100	180	240	173
Pigs	12	9	6	9
Companion animals	9	8	7	8
Equine	21	19	16	19
Poultry, rabbits	10/8	10/7	10/7	10/7.3
Exotic pets	-	-	-	-

Table 5.1.3. Number of patients seen intramurally (in the VTH)**

Species	2018	2017	2016	Mean
Cattle	113	97	130	113
Small ruminants	60	71	65	65
Pigs	149	44	34	76
Companion animals	5,756	5,225	5,175	5,385
Equine	69	73	79	74
Poultry, rabbits (decorative)	76/83	54/88	39/94	56/88
Poultry (farm)	24	12	28	21
Exotic pets	254	231	283	256

*** Each patient is officially recorded in the electronic patient record system of the Establishment and is individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient, even if it has been examined/treated by several departments/units/clinics.*

Table 5.1.4. Number of patients seen extramurally (in the ambulatory clinics)**

Species	2018	2017	2016	Mean
Cattle	2210	1931	1986	2042
Small ruminants	6157	4467	4826	5150
Pigs	227	129	130	162
Companion animals	0	0	0	0
Equine	0	0	0	0
Poultry, rabbits	21,087	20,468	22,007	21,187
Exotic pets	0	0	0	0

** Each patient is officially recorded and individually examined/treated by at least 1 student under the supervision of at least 1 member of staff. Each live animal affected by one specific clinical episode is counted as 1 single patient.

Table 5.1.5. Percentage (%) of first opinion patients used for clinical training (both in VTH and ambulatory clinics)

Species	2018	2017	2016	Mean
Cattle	75	69	71	72.7
Small ruminants	65	53	57	58.3
Pigs	93	83	69	81.7
Companion animals	83.3	81.2	79.8	81.4
Equine	27.5	24.7	22.8	25.0
Poultry, rabbits (decorative)	63/69	45/73	32/78	47/73
Poultry (farm)	55	43	41	46.3
Exotic pets	91	86	87	88

The animal material for autopsy is from various sources: larger farms in the region (poultry and livestock farms) which are partners to the FVMSZ. Other sources of corpses are university clinics. It should be noted that the significantly decreased number of farm animals in Bulgaria during the recent years affects also the number of autopsied carcasses.

Table 5.1.6. Cadavers used in necropsy

Species	2018	2017	2016	Mean
Cattle	35	68	57	53
Small ruminants	70	50	105	75
Pigs	80	49	20	49
Companion animals	103	114	150	122
Equine	11	7	14	10
Poultry, rabbits	193	400	76	223
Exotic pets	76	113	22	70
Dolphins/manatee		2/1		
Histological preparations	2,508	1,989	1,603	2,033

Table 5.1.7. Number of visits in herds/flocks/units for training in Animal Production and Herd Health Management

Species	2018	2017	2016	Mean
Cattle	191	192	194	192
Small ruminants	65	62	69	65
Pigs	32	32	33	32
Poultry	4	4	4	4
Rabbits				

Table 5.1.8. Number of visits in slaughterhouses and related premises for training in FSQ

Species	2018	2017	2016	Mean
Ruminant's slaughterhouses	9	9	9	9*
Pig's slaughterhouses	9	9	9	9**
Poultry's slaughterhouses	4	6	4	5
Related premises	12	12	12	12***
Others ****	4	4	4	4

* number of visits of student groups with an instructor (6-8 students) at the enterprise – 3 weeks, 3 groups per week; ** number of visits of student groups with an instructor (6-8 students) at the enterprise; *** visits at milk processing enterprises – 2 weeks, 6 groups per week (12-16 students); **** visits in meat processing enterprises, storage facility and retail markets during the student travel seminar – 4 visits of 3 groups (18–25 students).

Remark: Visits pertaining to Table 5.1.8 are within the semester. Each student makes one visit to a slaughterhouse and meat processing enterprise, two visits to milk processing enterprises, poultry slaughterhouse, storage facility and retail market. Visits at slaughterhouses are for a full working day (8 hours; from 8.00 AM to 5.00 PM).

5.2. COMMENTS AND SUGGESTIONS

The intentions of the Dean's team for improvement of the practical training of veterinary medicine students include:

- Continuation of the policy of investing in the diagnostic and therapeutic infrastructure of all structures within the UCDCU.
- More active and diverse forms of advertising of the activities and potential of the clinics are being activated in order to increase the number of incoming patients, especially horses and productive animals.
- Optimisation and organisation of attracting farms as external FVMSZ bases both for extramural field training and for attraction of patients with problematic diseases to be treated with the participation of students in FVMSZ clinics.
- If a sustained patient growth trend is established, consideration could be given to the introduction of a 24/7 on-call duty at the clinics, including for students. At this stage, given the location of the university, this is not justified, so the current practice consists of urgently calling a team, if necessary.

6. LEARNING RESOURCES

6.1. FACTUAL INFORMATION

Modern concept of education that has been adopted in many countries including Bulgaria, sets as main educational goals the intellectual and moral development of students, their critical and creative thinking, and last but not least their ability to work with information. A major part of specialised information is now available in the World Wide Web. That is why the availability of modern PC stations, free fast-speed internet access and provision of sufficient options for online learning is at the background of our strategy with this respect.

6.1.1. Trakia University Central Library

The Central Library of the Trakia University is the primary unit that provides services to undergraduate and PhD students, and to the academic staff of the FVMSZ. It is situated in the Student Campus. Apart the Central Library, students may use the library at the Faculty of Medicine and those organised in some of departments

The Central Library offers the opportunity to use the available funds through its information system. It provides information services to students, PhD students, lecturers, as well as other researchers, professionals and citizens. The normative document regulating its structure and activity of the University Library is „Statute of the University Library" adopted by the Academic Council with Protocol No. 21 / 25.09.2002. Basic parameters characterising the activity of the library are presented in the table below:

Parameters	2016	2017	2018	Mean
Library fund units	126,561	127,576	126,315	126,818
Registered readers	923	945	1,086	985
Individual visits	15,325	18,043	17,472	16,947
Borrowed units	30,957	32,950	34,415	32,774

The average annual number of readers is 985, and borrowed units for the 3-year period are 98,322. A total number of 50,840 individual visits were registered.

The staff of the Central library includes 4 librarians and one technical assistant, all with full-time employment contracts. Three of librarians are Master in Library Sciences; one is Bachelor of Book Publishing.

The working hours of the library are from 8.00 AM to 4.30 PM.

The total area of the library is 3,478 m². There is a lending service, two reading rooms with 40 places, and storage facilities situated on 3 floors. Students could use six automated places for access to library databases, for access to Internet and self-learning.

The library funds related to veterinary medicine include 22,761 books, 343 journals with a total of 15,670 volumes, PhD and DSc dissertations.

The Central Library has a long-standing exchange experience with the libraries of more than 109 universities and research institutes from 39 countries in Europe, Asia and America. In recent years, the tendency to subscription to electronic sources of information (full-text or bibliographic database) has been established, thus providing access to a large number of prestigious scientific publications. During the reporting period, the library has

provided licensed access to the following international databases: Academic Search Complete; Health Source; GreenFile; Teacher Reference Center; SpringerLink; SCOPUS; Science Direct; ISI Web of Knowledge

All information retrieval activities at the library are automated through electronic catalogues of books, periodicals, dissertations and diploma works; scientific archives and databases with an analytical description of articles from research periodicals received in the library.

The analytical database of research paper is especially valuable and extensively used by lecturers and students. Up to now, 5,697 records have been entered from the field of agrarian, veterinary sciences and ecology. The Reader Service and Library Fund Organisation unit at the library is working with readers in the Loan Service and Reading Room. It provides services to all lecturers, PhD students, and external readers after registration with personal subscription cards.

With respect to continuously increasing popularity of the distance service and using library services from workplace or home, the library has developed a well-designed and functional website. Thus the readers are informed about new electronic resources, new library items, new books and FAO books, training seminars and access to electronic databases, the electronic catalogue of the library, references to interesting and useful Internet resources. Upon request by readers, the requested library materials are scanned and sent by email. This service benefits students and lecturers as well as external readers.

The bibliographic records of journal articles that are received in the library are accompanied by web addresses and full texts. The database contains more than 111 000 descriptions. A 10 216 web address and more than 12 000 articles are added in full. They are accessible to our users through the library internet catalogue and are visible in the university network.

The Central Library is a FAO depository library for Bulgaria and as a result, about 160 volumes in the field of agriculture, published by this international organization, are coming annually in its funds. In recent years, electronic publishing is preferred because as soon as introduced into the library catalogue, the information becomes available in full text for users.

The digital center of the library is actively developing. All Bulgarian journals and current editions that have been uploaded in the library since the beginning of 2016 are already presented with full text in the library's internet catalogue. The staff also works on the retrospective presentation of full texts of previously described journals and digitisation of books that form the "Most Read Titles" collection.

6.1.3. IT facilities

The FVMSZ has 227 PC stations (24 in three computer halls, 5 in the lecture halls; 11 in FVMSZ clinics; 172 in departments and 15 – in Dean's Office and Accounting Office. Except for computer halls, all other PC stations are also supplied with printers. All they have unlimited free high-speed access to the university network. Having in mind the specifics of training in veterinary medicine, students are using computers mainly for gathering information on the internet, preparation and making quizzes in several subjects, and practical training in biostatistics and information.

Apart the computer halls which are exclusively used by the FVMSZ, students are also allowed to use university computer halls. The overall ratio of PC stations per 100 students is 31.7 or approximately 1 PC to 3 students.

The total area of computer halls is 140 m² and available area per 100 students: 17.9 m².

6.1.4. *Electronic information and e-learning courses*

The development of electronic forms of training is an important part of the educational and teaching and offers students continuous access to relevant materials on the Trakia University site (<http://edu.uni-sz.bg/>). Along with the wide participation of lecturers in the research and project development activities, an important role in the continuous updating of the teaching material is also played by the teaching of English programme students. In the course of lectures and exercises, modern world-class sources are used. In this way, the inevitable integration of the latest trends in the learning materials for the students is realised. Last but not least, electronic forms of training engage trainers to create a perfect product in terms of provided information.

The FVMSZ maintains and updates its webpage (www.uni-sz.bg/vmf) with most important events from the history and activities of the institution, contact details of Dean's team and departments, details for the admission campaign, research etc. The full texts of all issues of the journal published by the FVMSZ – the Bulgarian Journal of Veterinary Medicine (SJR 0.207 for 2017) – are regularly uploaded.

The InfoTrue programme, adapted to the requirements of the Ministry of Education and Science, is operating and contains data for every student and its actual status.

The students at the FVMSZ have also access to the following video collections:

- *Rehabilitation Therapy in Video* is the richest streaming video resource with more than 750 hours focused on physiotherapy and chronic health problems. The collection allows students to share footage of top clinicians and academics explaining the underlying anatomical and neurological issues in specific patient populations, and demonstrating effective techniques and methods for their treatment. All of the video has been thoroughly indexed to allow users to search and filter content by patient details, treatment method, presenting problem, and more.
- *Veterinary Education in Video* delivers content relevant to veterinarians, veterinarian techs, assistants. The collection demonstrates more than 600 procedures and techniques in more than 800 videoclips with clinical skills, descriptions of conditions, training in medical care and techniques on birds and animals with high standards of quality and accuracy.

All patients in clinics are recorded into a computer database with their entire signalment data and performed examinations and treatments. The records are used in the teaching and research work of the faculty. Since 2017, the software has been extensively up-dated and allows filtering of patients by species, diagnosis, name of the owner, date of review and treatment, etc. In the same year, a powerful server was purchased for storage of all imaging studies (CAT, radiographs, ultrasound and endoscopy).

6.2. COMMENTS AND SUGGESTIONS

The modern digitisation technique of the library is very useful for both instructors and students. Future prospects of improvement of library services include:

- Filling in and development of the Digital Repository of Trakia University. Completing the collection of summaries of PhD theses from the FVMSZ.
- Digitisation of proceedings from scientific forums available in paper version.
- Enrichment of own digital resources by developing lists and completing the "Literature for study years" collection.

7. STUDENT ADMISSION, PROGRESSION AND WELFARE

7.1. FACTUAL INFORMATION

7.1.1. Description of how the educational programme proposed by the Establishment is advertised to prospective students

The student admission campaign at the TrU is centralised (common) for all structural units (faculties, branches and colleges) and all majors. Therefore, the commitments of the structural units in this process are limited.

Before the start of the annual admission campaign, the Trakia University publishes a detailed *Student's Study Guide* with up-to-date information (**Appendix 7-1**) about the procedures for enrolment of new students, the requirements for local and foreign students, the rules for applying, the approved training fees, etc for each of majors. The booklet is distributed as advertising material and its full version is also uploaded on the website of the university.

Promotional materials and up-to-date information on the upcoming admission campaign are sent to over 1100 secondary schools across the country. Along with the information about the individual majors and professional fields, it also contains a schedule of student fairs (high school show) organised in different cities of the country, as well as the dates for conducting preliminary and regular admission examinations. In addition, candidates are also informed about the application process in the individual professional fields at the University.

Before the start of the campaign, and Open Door Day is held at the TrU for pupils, prospective students, their parents and teachers. They are allowed to visit lecture theatres, research and training laboratories, university clinics and animal hospitals, the Biobase, the teaching staff, museum collections and art galleries. Everyone could ask questions. The Open Door Day is a tradition that enables informed choice of students on their future education, career development and successful realisation.

At least 6 months before the start of the admission campaign, letters with advertising materials for the university and current information about the specialties that are studied there, including the Veterinary medicine major are sent to Labour Office Directorates of the Employment Agency and private labour offices in the country.

The university participates actively in the student admission fairs organised in larger cities in Bulgaria.

The TrU, and FVMSZ in particular, have advertisement contracts with a number of regional and national printed and electronic media.

Academic staff members and undergraduate veterinary students pay visits to secondary schools in the country and make presentations of majors taught at the TrU

In order to advertise the training at the TrU, the university authorities has agreements with specialised companies recruiting foreign students. These companies are committed to acquaint prospective students with the learning conditions.

The FVMSZ is a regular member of the European Association of Establishments for Veterinary Education (EAEVE) from 1994. Its mission and goals are harmonised with those of the European System of Evaluation of Veterinary Training (ESEVT). The last regular visit of ESEVT expert team was in 2010, and after the re-visit in 2015, in line with standard operation procedures in force at that time, the FVMSZ was granted an APPROVAL status. The related documents could be found on the faculty website: <http://uni-sz.bg/truni6/aeve-status/>.

7.1.2. Admission procedures for standard students

- Selection criteria

Bulgarian and foreign citizens with secondary education without age limit are eligible to enroll in any of majors taught at the TrU. The admission of prospective students who are Bulgarian citizens, citizens of the European Union (EU) and the European Economic Area (EEA) is done in compliance with Statute for admission of students at the Trakia University (**Appendix 7-2**), approved by the Academic Council of TrU. The application is made by:

1. Written competition examination or test in two sessions: preliminary and regular, whose results are valid only for the academic year when exams are delivered.

2. After 2008, an alternative is the grade from the state matriculation exam from the diploma for completed secondary education from and after 2008

The admission score is formed by the doubled grade from the biology exam or state matriculation exam in biology, plus grades of chemistry and biology from the diploma for completed secondary education. Only prospective students with a score > 14.00 are eligible to participate in ranking

The admission of foreign citizens from EC and EEA countries in Bulgarian language programmes is done according to the Ordinance on the State Requirements for Admission of Students in the higher schools of the Republic of Bulgaria (**Appendix 7-3**). Foreign citizens are admitted in accordance with intergovernmental agreements, acts of the Council of Ministers and art. 95 of the Higher Education Act. Applicants in English language programmes have to pass a test in biology in English and English proficiency exam.

The laureates of national and international biology Olympiads having completing their secondary education in the year of the contest, are admitted without entry examination.

- Policy for disabled and ill students

Two percents of the state-funded places for the Veterinary medicine major are for prospective students with disabilities. The ranking and admission of such applicants is determined by the Central Commission for Admission of Students at the Trakia University.

- Composition and training of the selection committee

The Central Commission for Admission of Students at the TrU and staff in the FVMSZ Commission for Admission of Students are approved by the Academic Council of the TrU before the start of the annual campaign. The members from the faculty are proposed after being discussed in the FVMSZ's Academic Affairs Committee.

The technical committees for conducting the entrance examinations and tests include experts from the academic affairs departments as well as the tuition quality department of the faculties. They are approved by the Academic Council by the Associate Rector for Academic Affairs. If necessary, they may include experts from other units of the Rector's Administration or from the main structural units.

Before the start of the admission campaign, all members of the committees sign a declaration of compliance with the rules on working conditions. Proposals for chairpersons, arbitrators and examination commission members are made by the faculties and are approved by the Academic Council. The number of members in each examination committee varies according to the number of written papers to be verified.

- Appeal process

Applications and petitions, apart from those for the identification of written papers, are submitted to the Rector and examined in a Specialised Complaints Commission, which is constituted in each admission campaign.

- Advertisement of the criteria and transparency of the procedures

The admission criteria and procedures are described in detail in Statute and Procedures for Admission of Students, available at the university website. Prior to the campaign, a detailed student's study guide describing in detail the conditions, rules and admission procedures is published in a booklet (**Appendix 7-1**), and posted in full text on the university webpage.

7.1.3. Admission procedures for full fee students.

The admission of full fee students is carried out within the framework of the training capacity of the Veterinary Medicine major, which is determined by the National Agency for Assessment and Accreditation (NEAA), but should not exceed 10% of it. Full fee students are eligible to apply again for state-funded places in the same specialty if a spare capacity is available.

7.1.4. Number of admitted students and the available educational resources

The number of students trained at the FVMSZ is determined by its administrative capacity. This capacity is determined on the basis of available resources and a formal request by the Faculty to the National Agency for Education and Accreditation (NAEA). Following accreditation procedures (institutional and programme accreditation), NAEA decides on the capacity of the faculty and whether any changes are required. Within the framework of the administrative capacity, the FVMSZ annually makes an application to the Ministry of Education and Science for the number of first-year students it can enroll. After approval by the Ministry of Education and Science, the FVMSZ announces the available places.

The admission and training of students in veterinary medicine is consistent with biosecurity and welfare standards. Practical training is done in small groups - from 6 to 12 students, who are instructed at the beginning of each semester about the specifics and requirements of the different subjects regarding biosecurity, and this is reflected in special logbooks.

During the last years, the FVMSZ enrolls 160 regular (state-funded) students plus 4 full fee students in Bulgarian language programme and 30 students in the English language programme. No changes are expected in the next 3 academic years.

- Policies and procedures for applicants with disabilities

The following groups are exempt from application and training fees: persons who are round orphans; persons with permanent disabilities and reduced working capacity of 70% and over 70%; persons grown up to their adulthood in homes for care and education of children deprived of parental care, war invalids and victims. Chronically ill or injured students, pregnant women and mothers with children up to 3 years of age may omit up to 50% of lectures and practical training sessions. They are provided with conditions that are tailored to their individual condition and needs for working out missed practical classes.

7.1.5. Progression criteria and procedures for all students

They are set by the following normative documents: Statute for the organisation, operation and management of the Faculty of Veterinary Medicine (**Appendix 1-2**), Statute for the training at the Trakia University (**Appendix 7-4**).

Exams take place in two parts - practical (test) and theoretical. Those who did not pass the first part are not allowed to the second. They may take a correctional exam in subsequent regular and resit sessions. Students who have taken up 100% of the practical classes and

have attended at least 50 + 1% of lectures are admitted to the exam. Students who did not pass the exams during the regular session are admitted to a resit (make-up) session. The latter takes place immediately after the end of the regular one. They have the opportunity to try to pass the examination once again in a September resit session just before the beginning of the next academic year. All students having failed at up to 2 examinations after the September session are required to complete their curriculum assignments during the next sessions. During this time, they are allowed to attend the classes in the subjects for the next year of the programme.

All students with learning difficulties are provided with individual consultations with lecturers in the respective subjects.

- Advertisement to students and transparency of these criteria/procedures

All the criteria and procedures related to students' training are clearly defined and explained in detail in the normative documents of the University and the Faculty, available on the respective webpages. Moreover, the policies and practices of the individual departments are explained in detail in the first week of the newly admitted students by the Dean and the Associate Dean on Academic Affairs. This is regularly done right before the session on a meeting specially organised on this occasion. Students are assisted by the Academic Affairs Office of the FVMSZ.

- Rate and main causes of attrition

For the reporting period, the average annual rate of students on leave is 23%, and the percent of those with poor performance is 5.4% on the average. According to the FVMSZ authorities, the reasons for the unsatisfactory performance of our students are complex. A new reading of the regulatory framework of the training is needed both at the university and at faculty level. In our opinion, the emphasis should be placed on the requirements of the staff responsible for some of subjects. They must have a sufficient degree of freedom, especially with regard to the forms of training and various forms of control on academic performance. All efforts should be directed to ensuring that students are regularly engaged in proving their knowledge in various forms. Individual work with students and their personal engagement should become leading in their preparation instead of relying on self-learning and work only during the examination sessions. The grade from the examination session should be only a component of the overall grade that reflects the student performance in a given subject.

- Mechanisms for the exclusion of students

The procedures and mechanisms for exclusion of students are clearly described in Statute on the structure, activities and management of the TrU), Statute on Academic Affairs at the TrU), Statute on the structure, activities and management of the FVMSZ (**Appendix 1-2**). All these are available in full text on the TrU and faculty's website.

- Appeal processes

Each undergraduate or PhD student at the TrU has the opportunity to file a complaint or a signal or other form of notification on issues related to the activities of the academic institution - educational, research, administrative, housing etc. The complaint/signal is filed in the Registry office of the TrU, where the sender receives a reference number. The complaints received are dealt with by the Complaints Committee, determined by order of the Rector of the TrU. In its work, the Committee follows strictly the procedures described in the Statute for examining complaints by undergraduate and postgraduate students (**Appendix 7-5**).

7.1.6. Services available for students

- Academic Affairs Office at the FVMSZ

All issues related to the administration of the training and services such as registration, distribution by study groups, provision of weekly schedules of lectures and practical sessions are carried out by the experts at the Academic Affairs Office of the FVMSZ under the leadership of Associate Dean on Academic Affairs. This also concerns the disclosure of decisions and orders from the Dean and a number of other services for students. All these activities that are carried out in the department are regulated in the Statute for administrative service of undergraduate and PhD students (**Appendix 7-6**).

The complete administrative service of foreign students, a Department for work with foreign students is established and functioning at the Rector's Administration. Two of instructors at the FVMSZ are charged with all the issues concerning the learning and accommodation of the students in the English language programme. The FVMSZ intends to appoint an administrative officer for this purpose for the next academic year.

All problems related to student mobility (ERASMUS+) are managed by an instructor responsible for international cooperation as well as provisional committees appointed by the Dean of the FVMSZ. Their operations are in line with the Statute on International Cooperation Activities of the TrU (**Appendix 7-7**) and Rules for the organisation, management and financing of ERASMUS+ programme activities (**Appendix 7-8**).

- Tutoring system and career development centre

In all matters concerning the learning, students can freely consult all lecturers as well as the Associate Dean on Academic Affairs. At the University level, a tutoring system in line with the Rules for tutoring system in the Trakia University (**Appendix 7-9**), is introduced. A Center for Career Development, whose activity is regulated by the Statute for the organisation and operation of the Career Development Centre (**Appendix 7-10**), at the Trakia University, was opened. The main goal of the Career Development Centre is to provide high quality services to the students in the field of career counseling and development in order to support their transition from education to successful professional realisation.

- Assistance for ill and disabled students

All students, Bulgarian and foreign, have a health insurance without exception. This means that they can benefit from free health services. Students (especially foreign ones) are assisted in choosing a GP. In the case of disability of 70% and more, students are exempt from payment of tuition fees. If needed, they can be trained on an individual curriculum.

- Student organisations

The primary organisation related to various aspects of student life and learning is the Student Council (SC). The main directions of the SC activity are:

- support of training for TrU students for their formation as highly qualified specialists.
- development of the scientific and cultural activity of the students through the realisation of projects and programmes for the benefit of the academic community.
- implementation of a long-term policy for improving and solving the social and accommodation issues of students, PhD students and specialisants.
- protecting the rights of students to relevant authorities.

- Resolution of student grievances

The Student Council is the main mediator among the students, instructors and the administration in solving all questions concerning the students' suggestions to the faculty

authorities, as well as comments and problems that are important for students. Students can contact them directly, depending on specific issue as well as the heads and lecturers of the individual departments, and the Academic Affairs Office. They have free access to the Associate Dean on Academic Affairs. Students may file applications and alerts to the FVMSZ Dean and, if necessary, to the Rector of the TrU. In these cases, the applications are first discussed by the Dean Council and, if necessary, the Dean delivers them to the Rector's Council. In the case of student complaints, the mechanisms described in the Statute for examining complaints from undergraduate and PhD students are followed.

7.1.7. Prospected number of new students admitted by the Establishment for the next 3 academic years

During the last years, the FVMSZ enrolls 160 regular (state-funded) students plus 4 full fee students in Bulgarian language programme and 30 students in the English language programme. No changes are expected in the next 3 academic years.

7.1.8. Procedures and committee structures related to the admission procedures

The tentative number of enrolled students (regular, full-fee, English programme) is voted at a meeting of the Faculty Council and then approved by the Academic Council of the TrU. The proposal is sent to the Minister of Education and Science, who submits it to the Council of Ministers of the Republic of Bulgaria for a decision. In accordance with art. 21 of the Higher Education Act, as an expression of academic autonomy, the educational establishment (e.g. the TrU) determines the admission criteria. Moreover, the services for students are also part of the policies of the higher school and they are taken and approved by the Academic Council; only some specific features are voted by the Faculty Councils incl. that of the FVMSZ. These decisions are brought to the attention of all students, administrative staff and technical staff by the person in charge for the admission, which is the Vice rector of Academic Affairs of the TrU. The implementation control is exerted by the Dean Council, the Faculty Council, Associate Dean on the Academic Affairs heads of departments and clinics.

Table 7.1.1. Number of new veterinary students admitted by the Establishment

Type of students	2017/2018	2016/2017	2015/2016	Mean
Standard students	160	160	160	160
Full-fee students	34	26	23	28
Total	194	186	183	188

Table 7.1.2. Number of veterinary undergraduate students registered at the Establishment

Year of programme	2017/2018	2016/2017	2015/2016	Mean
First year	194	186	183	188
Second year	156	142	139	145
Third year	116	117	120	118
Forth year	100	92	96	96
Fifth year	95	89	120	101
Sixth year	131	111	189	144
Total	792	737	847	792

Table 7.1.3. Number of veterinary students graduating annually

Type of students	2017/2018	2016/2017	2015/2016	Mean
Standard students	128	63	45	79
Full-fee students	1	3	1	2
Total	129	66	46	80

Table 7.1.4. Average duration of veterinary studies (The total duration of the studies matches the minimum number of years of the programme e.g. 5 or 6 years)**

Duration	% of the students who graduated in 2017/2018
+0**	35%
+1 year	32%
+2 year	12%
+3 years and more	21%

Table 7.1.5. Number of postgraduate students registered at the Establishment

Programmes	2017/2018	2016/2017	2015/2016	Mean
Interns				
Residents				
PhD students	10	6	8	8
Others (second Master's degree)	24	19	35	26

7.2. COMMENTS

In the context of the demographic crisis and the increasing emigration of young people, the FVMSZ makes annual efforts to attract prospective students. Every year, this process becomes even more difficult. Unlike many other faculties and universities in Bulgaria, the FVMSZ performs successfully in the difficult and highly competitive environment and is able to attract enough students.

A relatively good organisation for attracting prospective students has been set up. It is, at a high extent, subordinate to the general university practice concerning this issue. Various forms of advertising and presentations are used to emphasise the advantages of the veterinary education at the FVMSZ.

The training process at the FVMSZ is relatively well secured by existing regulatory framework. The safety and welfare at the faculty are almost entirely ensured. In all the main structural units, a system of information for students has been created, and students are allowed to participate in the regulatory processes.

At the university and FVMSZ level, the necessary conditions for administrative servicing of the students and for the regulation of all activities related to their participation in the training process, research activity and in the clinical services of patients and citizens are created.

The student's organisation at the university is well recognisable and actively involved in making strategic and specific decisions.

7.3. SUGGESTIONS

The normative documents related to student admission are developed at the university level. They should be updated more frequently. The communication between Trakia University and the FVMSZ should be improved.

In the future, all forms of electronic information to graduates from secondary schools related to the benefits of education received in the FVMSZ should be used even more. More specifically, Open Door days should be conducted so that everyone who has an interest can see how and where training in the field of Veterinary Medicine is done.

It is imperative that students and their organisation are more actively involved in creating the relevant public image of the veterinary profession, especially among adolescents.

8. STUDENT ASSESSMENT

8.1. FACTUAL INFORMATION

8.1.1. Student's assessment strategy

The forms for examining and assessing the knowledge and skills of students are defined in curricula and study programmes. The way of performing exams at the Faculty is based upon the Bulgarian Higher Education Act. According to them, the main form of assessment of the knowledge is the written examination, unless the specificity of the subject and/or module requires otherwise. Written materials from the evaluation of knowledge and skills test are kept for at least one year from the conduct of the exam.

Students' knowledge and skills are evaluated on a six-point system, which includes: excellent (6.00), very good (5.00), good (4.00), average (3.00) and weak (2.00). The examination is considered as successfully passed provided that the final grade is not lower than sufficient (3.00). The overall assessment strategy for students at the FVMSZ is laid down in Statute for the Organisation, Activities and Management of the FVMSZ (**Appendix 1-2**).

Permanent current and final control is exerted on students' learning and acquisition of knowledge. Upon a decision of the Department council, students that have successfully passed all required forms of current control could be exempt from the entire exam or at least for a specific part of the learning material. Only students that have participated in all practical training sessions and the required part of lectures are eligible to sit in an exam.

The terms, methods and form of final examination are a mandatory part of course syllabus. Registers of examined students are kept in the departments containing the names and faculty number of students that sat for the exam, grades from practical exam or quiz (if any), theoretical exam grade and the final grade. This register is kept at the Department for indefinite period. The final grades and earned ECTS credits are written down in an examination protocol, which is presented at the Dean's Office within 3 days after the end of the examination session. The grades from the protocols are written also in the Register Book of the FVMSZ.

8.1.2. Specific assessment methodologies

- Theoretical knowledge assessment

Permanent current and final control is exerted on students' learning and acquisition of knowledge. All forms of current and final control are approved by Department Councils after proposition by course leaders and written down in the course syllabus. Current control is performed within the period set by the study schedule for practical or theoretical study activities. Current control grade should be recorded in the primary documentation of the department or unit. The relative share of current control grade for the final grade is determined by the examiner. This occurs within the time of examination sessions set by the academic calendar, or after completion of a subject module.

The major form of assessing knowledge at higher schools is the written examination. It may be followed by a short discussion on examination subjects. The latter are in course syllabus, which is available to students before the training and/or department webpage.

The grading of theoretical knowledge of students is done by professors or associate professors, responsible for lectures in the respective course. If they are not available, examination is carried out by another habilitated instructor from the department,

appointed by the head of the department. The examination is completed within the working hours of the day with a grade in the student's book.

- Pre-clinical practical skills assessment

Pre-clinical practical skills of students are evaluated by a system for practical examination, developed and announced by the respective department. It could include a quiz, oral presentation, independent performance of individual tasks. Grades from practical examination and quizzes are valid for make-up examination sessions.

- Clinical practical skills assessment

Regular students or students in leave are allowed to take their examinations once during the regular examination session and once during the make-up (resit) examination session that take place after the end of each semester. All students with two past due exams after the end of the second resit examination session, are required to do so during the respective sessions of the next academic year. Meanwhile they are allowed to continue their studies in an upper course. Students that do not manage to take the examinations from the preceding year, take a leave because of poor performance.

8.1.3. Assessment methodology and achievement of the minimum level of competence as per ESEVT Day One Competences

Five- year students are admitted to state practice with no more than 2 past due exams up to end of the September resit examination session. Trainees with past due exams after this session could pursue their practice, but are not eligible to state examinations. 6th year students are allowed to take past due exams during the examination sessions when the regular exams of the respective courses are scheduled irrespective of the semester when the subject is taught. To this end, the departments schedule several dates within the frame of regular sessions. Only students that have successfully taken all semester examinations and have performed pregraduation external practical training, are eligible to state examinations.

The training strategy of the FVMSZ and all described procedures guarantee that students have completed the needed hours of training in all core and elective subjects from the curriculum and they will acquire a minimum level of competence to comply with the ESEVT's Day One Competences standards:

- Professional communication with animal owners, farmers, managers, carers and other clients that could describe the history of the disease, or performance of an epidemiological survey
- Performance of necessary complete clinical examinations in diseased animals, on individual or population level.
- Decision-making about performance of appropriate diagnostic laboratory or instrumental tests requiring a higher competence and requesting them from owners
- Administration of adequate treatment in the interests of the patients and with regard to the current legislation, by application of all permitted invasive and non-invasive techniques, and registered drugs and products
- Delivering in situ surgical or obstetric help in compliance with personal competence level as permitted by available conditions, or directing the animal owner to more specialised diagnostic and clinical units operating at a higher professional level
- Performance of in situ gross post-mortem examination, and when necessary directing the animal owner to consultation with pathologist from a more specialised diagnostic units
- Organisation and control on carcass disposal and utilisation in line with current regulations

- Strict performance of requirements related to the provision, storage, dispensing and utilisation of drugs, bioproducts and other consumables used in veterinary practice
- Inspection of food of animal origin and feeds in line with current regulations
- Organisation of mandatory events related to detection, notification and termination of contagious animal diseases for which a special regime and a regulated algorithm of procedures are required;
- To observe and demand from subordinates safe handling and restraint of patients with respect of the animals
- To maintain and store the required current and regular database associated with veterinary activities both as hard and electronic copies

8.1.4. Advertising of the assessment criteria

The curriculum of the FVMSZ is available on the faculty website. It states explicitly the examinations that should be taken for the entire period of studies. The way exams are conducted and evaluation system are announced in respective statutes, which are also available to both students and instructors. The evaluation system is described in detail in individual course programmes.

The grading system is described below:

The final grade is formed upon the six-grade scale. Corresponding ECTS grades are given below. The minimum passing grade is sufficient (D, E):

Excellent 6	Very Good 5	Good 4	Sufficient 3	Poor/fail 2
A	B	C	D, E	FX, F
Credits earned per the curriculum				No credits earned

Grading scale equivalents:

- Poor/fail (2) – very unsatisfactory level of knowledge (<50%), major errors, cheating attempts.
- Sufficient (3) – knowledge of 60% of course content,.
- Good (4) – knowledge of 61-73% of course content.
- Very good (5) - knowledge of 74-87% of course content.
- Excellent (6) – knowledge of 88-100% of course content

The final grade takes into account the results from all forms of current control throughout the semester. The relative weight of the assessments from the current control in the final grade is determined and recorded in the curriculum of the discipline. At the beginning of the given subject the assessment rules are announced by the lecturer and are announced at a special place in the respective department, which is well visible and accessible to the students at any time.

- Post-assessment feedback and guidance for improvement

The current evaluation and grading system allows students to know the results from their performance within the same day. As stipulated by the Statute for Organisation, Activities and Management of the FVMSZ, the examination ends with a grade in the student's book. Final grades and earned ECTS credits are written down in an examination protocol, presented at the Dean's Office within 3 days after the end of the examination session. The grades from the protocols should be written in the Register Book of the FVMSZ within two weeks.

Students that have performed poorly and fail on examinations could participate in group or individual consultations with lecturers from the respective department in order to overcome any flaws in self-preparation and improvement of skills and knowledge.

- Appeal processes against assessment outcomes

Within an academic year, all regular students and students on leave are allowed to take a given examination once during the regular and once during the resit examination session immediately after the end of each semester, as well as during the ultimate resit session in September.

If the students wish to obtain a higher grade in a given subject, they could request to be examined again with a written application deposited within the respective regular session. In such cases, the examination is carried by a commission appointed with an order of the Dean. The obtained grade is subject to no more appeals.

- System for certification of achievement of learning outcomes in the different subjects

The FVMSZ has an established system for timely information of the academic staff on the efficiency of tuition quality management. The Dean's team conducts constant control and analyses on students' performance in the various subjects and plans for measures to remedy any issues. They are discussed at the Faculty's Academic Affairs Committee, and at the meetings of the Faculty Council. Such analyses are conducted after every final exam session, the Faculty Council makes decisions and gives recommendations for the correction and improvement of the study process.

A comprehensive analysis of quality is performed at the end of each academic year and the necessary measures to improve it are drafted. This analysis is accepted and affirmed at a meeting of the Faculty Council.

The tuition quality system at the FVMSZ is supervised by the Tuition Quality Commission, Quality and Accreditation Unit at the Trakia University. At the faculty level, the bodies managing and controlling the quality of training are the Faculty Council, Academic Affairs Committee, Research Committee, Academic Staff Attestation Commission, the Dean, the Associate Dean on Academic Affairs. At the department level, the activity of maintaining and enhancing the quality of education and of academic staff is supervised by the departmental quality manager, the department councils, the heads of departments.

- Strategy to encourage students to take an active part in learning

The results of the training analyses are available to students. They also have a free access to support staff organising the teaching in each department. Important topics are announced on special boards in the working and seminar rooms. The academic staff provides opportunities for students to compensate for deficiencies in the training by giving them the right to work out the missed practical and seminar classes following a procedure determined by the respective department. In each department, there is a schedule for consultations with the lecturers of the courses.

The Dean and Associate Deans have reception hours for students, lecturers, employees and citizens. The working hours of Dean's Office is defined in order to ensure that students and PhD students have free access to the administrative services. In order to better coordinate the interactions between faculty staff, students and administrative services, free access to the FVMSZ administration, information bases and library funds, additional forms of language and computer training, sports and arts facilities is provided.

The periodic meetings of the Dean's team and the heads of departments with the students to discuss the work of the Dean's Office, teaching and support staff are very useful in terms of correction and amendments of current practices. These meetings are regular and

cover all issues related to the quality of the training, the administrative services and the student activities in the field of research, sports and recreation. The Student Council at the FVMSZ initiates these meetings or they are necessitated by emerging problems and then, initiated by the Dean's team.

8.1.5. Decisions and revisions on student's assessment strategy

The Departmental Councils, chaired by the heads of departments, prepare their suggestions on the evaluation strategy for the subjects taught in the Department. The Academic Affairs Committee, which includes students and practicing veterinarians chaired by the Associate Dean on Academic Affairs examines the proposals and in the case of violations or discrepancies with the regulations of the TrU and the FVMSZ return them for amendments in the department.

After correction of the inaccuracies, Academic Affairs Committee submits the proposals of departments for discussion and approval by the Faculty Council. Approved proposals on the evaluation strategy become an integral part of the programmes of the relevant courses. Information of staff, students and other stakeholders is done by the administrator of the Faculty's website as well as by the heads of departments.

The leaders of the respective courses and the heads of departments are charged with the implementation of the evaluation strategy.

- Learning outcomes and assessment design

After each examination session, Associate Dean on Academic Affairs presents the evaluation results to the Faculty Council, which are submitted to a critical analysis of the achievements. This analysis and evaluation includes also members of the Faculty Council. The goal is to set measures for optimisation of examination and the evaluation methods.

8.2. COMMENTS

The control on students' knowledge is an essential element of the learning process. This is particularly true for the development of the assessment system, as it can be a strong stimulus yet in the case of obvious imperfections it can also have an adverse effect.

The system of knowledge control and assessment set up at the FVMSZ is based on long-lived academic traditions. There are various forms of permanent and final control.

The mechanism for assessment of students as well as for analysis of its outcome developed at the FVMSZ allows the set learning objectives to be achieved to the fullest extent and ensures that all the procedures laid down in the curriculum are personally done by each student. Both the quantitative and, to a large extent, qualitative approaches to assessing students' knowledge and skills are the basis for their ability to comply with the ESEVT's Day One Competences standards.

8.3. SUGGESTIONS

The assessment system should be even more flexible and capable of responding adequately to any change in learning environment. Instructors in individual subjects need to be proactive and be more resolute in making changes.

The Dean's team fully realises the need from a new approach in assessing the knowledge of students and specialists. It is imperative to modify the system so that it could have a stimulating effect and to motivate students to seek new knowledge and to work more independently to master their professional skills.

It is absolutely imperative to build new training and practical bases, especially for practical clinical training – independent work on models, carcass and organ material, interactive training etc.

9. ACADEMIC AND SUPPORT STAFF

9.1. FACTUAL INFORMATION

9.1.1. Global strategy ensuring that all requested competences for the veterinary programme are covered and that staff are properly qualified for their roles

The strategy ensuring that appointed staff is competent for training students consists in following a procedure with a number of rules. First of all, there is a selection of students with outstanding achievements in the field of study, clinical and scientific research. The appointment after competition is a leading principle. Vacancies are announced on the website of the university and in the State Gazette. The announcements lay down the exact requirements that candidates should possess. Initially, instructors are appointed on a temporary employment contract. In their future activities and development, they are required to meet certain criteria in several areas - study, clinical and scientific research. Only after the fulfillment of the above criteria and the successful defense of the dissertation they are appointed on a full-time permanent employment contract (more details are given below). All lecturers in the VMF are subject to a regular attestation, of their activity and development. A recent practice in our university is financial stimulation of academic staff having shown excellence in research.

The support staff competences are decided by the heads of departments and faculty clinics. They make a description of job profile and are responsible for the selection of candidates. Support staff members are appointed initially with temporary contracts. They are also subject to periodic attestation.

- Academic staff (AS) categories

The training of veterinary medicine students is performed by instructors with relevant profile and qualification. The academic staff members of the FVMSZ with full-time contracts are 101 (**Appendix 9-1**). They are divided into two main categories: habilitated (56) and non-habilitated (45).

Habilitated instructors are Full professors and Associate Professors. Full professors are holding either PhD degree or both PhD and DSc degrees. The majority of Associate professors are with PhD degree, a minor part are with both doctoral degrees.

Chief assistant professors are non-habilitated instructors with PhD degree. Both habilitated instructors and chief assistant professors are appointed with indefinite term employment contracts.

Assistant professors are also non-habilitated. After the competition exam, they are appointed with a 4-year employment contract. Within that period, they have to defend a PhD thesis in order to be appointed with indefinite term contract. Therefore, they are instructors and PhD students at the same time. After the expiration of the 4-year temporary contract, a new employment contract is not allowed.

There is also a very small group of assistant professors without PhD degree, which are with indefinite term employment contracts. Their status is different because they have been appointed according to the old law in force until 2011.

The academic staff members are appointed after winning a competition, announced on the basis of study hours for an academic year. The minimum number of hours for a professor is 240, for associate professors - 300, and for assistant professors - 360 hours. The minimum number of available lecture hours is 30. Non-habilitated instructors are responsible for the practical training. Available lecture hours are not required for appointment of non-habilitated persons.

Regular PhD students who are not on indefinite term employment contract may be charged with a workload of up to 180 hours (half that of an assistant professor). During the last year of doctoral studies, they are not charged with teaching.

The training in physical education and sports, information technologies, physics and biophysics, medical botany, biostatistics, animal husbandry economy, zoology is done by academic staff with employment contracts in other faculties of the Trakia University.

A small group of instructors are engaged part-time. They are not members of the academic staff of the FVMSZ. They are appointed to perform a specific part of the training either in Bulgarian or English language. The distribution of the academic staff according to the type of employment contract is presented below.

The major part of the academic staff holds a Master's degree in veterinary medicine (DVM) as seen from Table 9.2.2. Others are Masters of Science (Art) in chemistry, biology, mathematics, zooengineering, economics and administration.

The distribution of academic staff with indefinite term employment contracts in the different FVMSZ departments by 2019 is presented in 1. Objectives and Organisation.

In the FVMSZ, there are no persons engaged only in research activities, e.g. research staff. State-funded PhD students are engaged mainly in research, but they are not employed by the university.

- Support staff

The support staff includes those engaged in support of teaching and research activities, administrative staff servicing students and instructors, as well as maintenance of buildings, equipment, environment, FVMSZ clinics and hospitals, the Biobase. All support staff members are with indefinite term employment contracts. They possess high school diplomas or university degrees (Bachelors or Masters).

9.1.2. Selection, recruitment and training of the academic staff

The Faculty of Veterinary Medicine admits and trains young instructors and PhD students in all specialties.

During the last 10 years the selection and growth of academic and research staff in the Republic of Bulgaria is carried out under conditions of constantly changing legislation. Since 2018, a new legal framework has been adopted and implemented with the Academic Staff Development Act and statutes for its implementation (**Appendix 9-2; 9-3; 9-4**). They determine the rules for academic career of university academic staff, including the staff of the FVMSZ.

Instructors and PhD students involved in the training of veterinary medicine students are recruited and appointed based on a competition. The admission of PhD is done in doctoral programmes accredited by the National Agency for Evaluation and Accreditation (NAEA). Their admission to the competition is made by a commission appointed with an order from the Dean.

The competition for assistant professors includes an examination in the specialty. The PhD students are required to sit in the same exam, as well as to pass an examination in a foreign language. Until the second exam, only candidates who have successfully passed the exam in the specialty are admitted. Candidates who passed the examinations are ranked according to the score from the specialty exam.

Habilitated instructors and chief assistant professors are appointed after assessment of their entire activity and based on a competition. In the evaluation, the scientific jury takes into account the results of the research and publication activity at the first place. In addition, it evaluates the teaching, clinical, expert and administrative activities, introduced

teaching methods innovations, activities in a practical environment outside the higher school. Special attention is paid to the work with students and PhD students, including collaboration in research and artistic projects. Memberships in a renowned creative and/or professional organisation in the relevant field, research results applied in the practice; inventions and other intellectual property products are also considered.

Part-time instructors, which are only few at the FVMSZ, are appointed after opening a competition. They should comply with a number of requirements regarding their educational background, qualification, specialisations, skills, training experience etc

The main goal of the training of new assistant professors and PhD students is the advanced theoretical knowledge of respective specialties, acquisition of modern didactic approaches for teaching of the subjects in the field and skills to be applied in the research process in laboratory and clinical settings.

The tasks that should be fulfilled by assistant professors and PhD students can be summarised as follows:

1. Professional competence:

- Acquisition of knowledge and skills for obtaining a doctoral (PhD) degree;
- Acquisition of a high qualification allowing teaching relevant subjects;
- Acquisition of pedagogical, clinical and laboratory skills needed for training students;
- Personal and professional growth with regard to rapid adaptation to the dynamically changing environment;
- Acquisition of skills for application of all modern methods in the specific professional field allowing good quality of teaching and research.

2. Research competence:

- Understanding in detail the theory of experimentation and methods of experimental activities, data analysis, processing and presentation of results;
- Acquisition of skills for writing and editing scientific papers, reports, messages, abstracts, posters and dissertation papers;
- Co-operation and integration with specialists and young scientists from other scientific fields.

3. Moral educational competence

- Improvement of the professional ethics and formation of a value system that is adequate to the new realities;
- Observation of the highest standards of scientific and publication ethics.
- The development of assistant professors, resp. PhD students is carried out on an individual curriculum, whose design, structure and content correspond to an established model. The curriculum draft is made by trainees and their supervisors or consultants, it is discussed by the Department Council and then approved by the Faculty Council. The individual curriculum consists of a study plan for the entire period of study, as well as work tasks by years. An essential part of it is the examination in the specialty according to an approved syllabus. The training itself is accomplished by:
 1. Participation in the lectures in the relevant subjects performed by habilitated instructors;
 2. Participation in clinical practical training, including mobile clinics, performed by habilitated instructors;

3. Participation in specialised and/or interdisciplinary seminars and courses organised during the training period;
4. Visits at foreign educational institutions;
5. Participation (alone or in a team) in the implementation of a research project;
6. Update and visualisation of the lecturing material in the relevant scientific field;
7. Mastering the research activity by searching, developing and applying new research methods;
8. Participation in scientific forums with oral reports and posters to promote the obtained results;
9. Continuous compliance with the requirements of the training programme and timely taking of necessary examinations.

Young instructors report the done work at the end of each semester and are attested at the end of each academic year. After an analysis of the achievements, the members of the Department Council make their suggestions for corrections, noted in protocols from the meetings and representing an indispensable element of the quality assurance system in the PhD student's training. There is a credit accumulation system that reflects the PhD student's readiness to defend a dissertation.

Traditionally, young academic staff members at the FVMSZ are required to pass the following training courses:

- Six-month intensive English language course for levels B1, B2;
- Professional pedagogical qualification course;
- Course in protection and welfare of experimental animals used in research and education
- Training course on research and experimental methodology

The training of academic staff members at the FVMSZ is carried out with full profiting on modern digital, information and didactic tools used to strengthening their active cognitive position. New opportunities for better presentation and visualization of the learning material and the research results are sought in line with current legal requirements and norms. The collective approach to learning is combined with individual work, assigning specific tasks and periodical checks on performance.

The young academic staff members take active part in courses, seminars, brain storming, development of concepts and methods of work, experimentation, adoption of modern information tools for analysis and processing research results, and preparing and publishing scientific reports. The constant relationship with the scientific mentor is of primary importance, as well as the work with technical staff from the department and the faculty laboratories. They also have access to services provided by universities' research structures and the library.

The University Library has nearly 400,000 volumes of scientific literature, as well as access to information databases (Internet delivery, library, electronic databases including ScienceDirect, Academic Search Complete, Springer Link, EBSCO Publishing, VetMed Resource, etc.), subscriptions to Bulgarian and foreign journals.

9.1.3. Selection, recruitment and training of the support staff

A part of the administrative and support staff of the FVMSZ staff is appointed on a contract with a probationary period of 3 to 5 months. Upon a positive evaluation, the worker receives an indefinite term employment contract. Another part of the staff, most often with university degrees, is actively involved in the laboratory, research, clinical and administrative activities of the faculty. Such people are recruited by job position

competitions. For persons at specific positions, acquiring a higher level of education is not a reason for higher remuneration if it does not meet the job description.

Support staff members are eligible to participate in different training courses:

- Six-month intensive English language course for level B1;
- Course in protection and welfare of experimental animals used in research and education
- All postgraduate courses organised at the FVMSZ
- Training seminars organised outside the FVMSZ

9.1.4. Formal programme for the appraisal, development, promotion criteria and procedures, supporting and mentoring of both academic and support staff

The academic staff with indefinite term employment contracts is subject to regular attestation. Its purpose is to evaluate the contribution of each lecturer in the teaching, research, administrative and other activities of the higher school, as well as to improve teaching and research quality. The attestation is carried out according to the procedure and terms stipulated in the respective internal rules (**Appendix 9-5**).

Non-habilitated instructors are evaluated at 3-year periods, while habilitated – at 5-year periods. Attestation is done by the Central Attestation Commission of the TrU and Attestation Commission of the FVMSZ.

Each academic staff member is subject to a complex assessment by criteria divided into several main areas: a) teaching and teaching activities; b) research and development; (c) professional experience and qualifications; d) clinical diagnostic activities. The evaluation is based on an individual attestation card (**Appendix 9-6**). When in two consecutive appraisals the evaluation is "unsatisfactory", the Faculty Council may make a proposal to the Rector of the TrU for termination of the employment contract.

From December 2017, the FVMSZ is listed in the Register of Scientific Activities in the Republic of Bulgaria. It is maintained by the National Centre for Information and Documentation (NACID <http://nacid.bg/en/>) and contains data for the entire scientific development and career of academic staff members. The information contained in NACID database will also be linked to the state subsidy that will be received by our faculty. The electronic register allows for a detailed up-to-date and public accountability that will become the main tool for evaluating and attesting the FVMSZ as an establishment and each individual instructor.

The performance of administrative and support staff members are regularly attested at 3-year periods following respective rules. Professional competence and qualifications are considered as a set of knowledge and skills necessary for the high-quality performance of the duties; the working time of that position; level of responsibility and service, etc. Evaluation is carried out by a commission on a proposal from the direct administrative supervisor in compliance with internal rules. In cases of change of position and workplace, the date of the change is considered as starting date of the three-year attestation period. If the results from the attestation are negative, the employee may be dismissed.

9.1.5. Outside work, incl. consultation and private practice, by FVMSZ staff

The main responsibilities of the staff with employment contract with the FVMSZ are to perform and support the educational process with undergraduate veterinary medicine students. At the same time, their participation in scientific and research activities is obligatory. The majority of veterinary surgeons working in the faculty clinics are members of the Bulgarian Veterinary Union, which is their professional organisation.

This permits clinical activities, which are not closely related to student education, and allows for a broader professional realisation with full personal development. In this respect, members of the academic staff as well as the support staff participate in various activities outside our institution under the form of:

- Consultation and therapeutical activities;
- Expert activities;
- Training activities (National Centre for Professional Training and Competence „America For Bulgaria“, <http://ncpok.uni-sz.bg/en-us/pages/aboutus>);
- Participation in presentations at seminars, congresses, meetings etc.

All these options are regulated by the Statute for the Organisation, Operation and Management of the FVMSZ.

During the next 3 years, no significant change in the number of staff categories is expected. Only increase in the number of PhD students is foreseen.

9.1.6. Current formal system for academic staff assessment by the students

The FVMSZ has implemented an active system for academic staff evaluation with students' participation. It is regulated by „*Statute for Tuition Quality Management at the FVMSZ*“ – integral part of „*Quality Management System at the Trakia University*“ described in detail in „*Quality Handbook*“ (see **Appendix 11-2**).

The system allows creating, maintaining and processing objective database aimed at control and evaluation that stimulates instructors for conscious constant development and assuming responsibility for the quality of education and the educational outcome. It operates at university, faculty and department level.

An important element of the system ensuring the quality of education at the FVMSZ is the *student evaluation of tuition quality*, described in detail in Standard 1. The surveys are performed in the presence of representatives of the Student's Council – a guarantee for impartiality of data. The students evaluate the overall competence and paedagogical skills of instructors, way of conducting and regular attendance of classes. An anonymous survey card was created for this purpose (see **Appendix 11-8**). The results from students' surveys are presented to each of instructors with the purpose to make respective corrections in his/her future work.

The results of the conducted surveys with students in recent years are indicative of a high level of teaching quality. Since the personal data for the teaching staff are available only to the Dean, if results are alarming, he conducts conversations with specific instructors in order to improve the quality of their teaching performance.

The operative results from the Quality Evaluation and Management System are readily available for everyone. This is also valid for annual audits performed by the TrU Commission on Tuition Quality that monitors:

- activities related to organising and conducting education;
- the system ensuring the level of students' academic preparation;
- the system for awarding and transfer of credits, and the student mobility system;
- the system for student participation in research;
- the quality of administrative services for students;
- control over the quality of the activities related to providing the proper material-technical and technological environment for education;
- the system for keeping track of the career development of graduates and the system for feedback from employers and recruiters.

- postgraduate and continuous education

The information from internal audits and their recommendations is presented to authorities of the TrU and FVMSZ.

9.1.7. Prospected number of the academic and support staff of the veterinary programme for the next 3 academic years

During the next few years, no substantial change in the type and number of employed academic and support staff members with permanent contracts is anticipated.

Table 9.1.1. Academic staff of the veterinary programme**

Type of contract	2017/2018	2016/2017	2015/2016	Mean
Permanent (FTE)				
Professors	18	21	21	20
Associate professors	37	34	35	35.33
Chief Assistant Professors	13	12	15	13.33
Assistant Professors	23	26	25	24.67
Temporary				
Assistant Professors	8	8	4	6.67
Part-time lecturers	5	4	5	4.67
Interns (FTE)	1	1	1	1
Residents (FTE)	-	-	-	-
Practitioners (FTE)	-	-	-	-
Others (FTE)				
Visiting lecturers	1	1	1	1
PhD students (FTE, non budgeted)	1.75	1.25	2	1.67
Total (FTE)	107.75	108.25	109	108.34

FTE – Full-Time Equivalent; **PhD students are not generally included in the academic staff; only a few participate in a very limited way in the veterinary programme.

Table 9.1.2. Percentage (%) of veterinarians in academic staff

Type of contract	2017/2018	2016/2017	2015/2016	Mean
Permanent (FTE)	93%	93%	93%	93%
Temporary (FTE)	-	-	-	-

Table 9.1.3. Support staff of the veterinary programme

Type of contract	2017/2018	2016/2017	2015/2016	Mean
Permanent (FTE)	45	45	46	45.33
Temporary (FTE)				
Total (FTE)	45	45	46	45.33

Ratios between different staff categories and students are presented below.

Ratios	2017/2018	2016/2017	2015/2016	Mean
Academic staff / Students	99/1036	101/989	100/933	100/986 (0.101)
Support staff / Students	45/1036	45/989	46/933	45.3/986 (0.05)
Academic staff / Support staff	99/45	101/45	100/46	100/45.3 (2.32)

Table 9.1.4. Research staff of the Establishment

Type of contract	2017/2018	2016/2017	2015/2016	Mean
Permanent (FTE)	n.a.	n.a.	n.a.	n.a.
Temporary (FTE)	n.a.	n.a.	n.a.	n.a.
Total (FTE)	n.a.	n.a.	n.a.	n.a.

9.2. COMMENTS

Currently, for the first time the number of habilitated instructors in the FVMSZ exceeds that of non-habilitated academic staff. There is a trend towards decrease in the number of support and technical staff compared to previous years. The requirements to the academic staff and support staff are constantly increasing, along with their duties and responsibilities. The start of the English language programme also plays a role in this process.

The low remunerations of the instructors create an imminent risk of compromising academic staff quality. According to the legal framework, the main criterion for academic career growth are the results of publishing and research activities. In our view, other factors, such as age structure, research and teaching experience, contribution to rating system indices, development of individual courses, directions etc., are also important in addition to science metric values. Habilitated lecturers have superior pedagogical, clinical and professional experience. In this sense, their prevalence is beneficial for the educational process; yet on the other hand, this could impair the natural proportions in the staff structure of the FVMSZ.

9.3. SUGGESTIONS

Possibly, in the future our traditional concept for the academic staff structure in each department, clinic or laboratory will inevitably change along with changes in responsibilities of instructors. The academic careers should pay an equal emphasis to teaching and clinical activities and not only to research results. Efforts should be made to attract more PhD students and specialisants.

10. RESEARCH PROGRAMMES, CONTINUING AND POSTGRADUATE EDUCATION

10.1. FACTUAL INFORMATION

10.1.1. Research activities of the Establishment and their contribution to research-based undergraduate veterinary education

The academic staff members of the FVMSZ perform simultaneously teaching, research and clinical activities. As outlined in Standard 9, the main criterion for academic career development of instructors is their individual scientific influence metrics. In recent years, requirements have been steadily rising in this respect. Most valuable are articles published in editions referenced and indexed by Web of Science and SCOPUS. A testimony of the results in this respect are the publications of FVMSZ academic staff with IF and SJR (**Appendix 10-1**).

The research performed in line with ethical principles of work and experimentation with animals according to the current legislation, is an integral part of the activities of the academic staff as well as of undergraduate, PhD students and post-graduate students.

Every year, the lecturers from the VMF participate in dozens of collective or individual research projects, purposefully funded by the state budget. Implementation of research projects is the most popular form of conducting research. The research teams of projects include also students and PhD students. Most of them are related to fundamental research on animal health, welfare and metabolism, morpho-functional changes in various pathological conditions, control and management of reproduction, prevention and control of infectious and parasitic diseases, food safety, detection of drug residues and toxins, implementation of novel and modern methods - these are the scientific priorities at the FVMSZ.

Although to a lesser extent, instructors participate as leaders or members of teams developing research projects at national and international scale (see **Table 10.1.5** and **Appendix 10-2**). We are working on agreements with higher education institutions and various international organisations and programmes, with accompanying joint research programmes.

10.1.2. Postgraduate clinical training and its contribution to undergraduate veterinary education

The work and training of students at the FVMSZ, including clinical training, is in accordance with the hierarchical level of the trainee, its rights, competence and ability. The goal is to achieve integrity in the training and research process. For example, undergraduate students are mainly involved in receiving, registering, primary patient care, collection of samples, post-operative care and monitoring. At the same time, they are included according to their competence together with the clinical staff and instructors in the actual work in every clinical case, as well as in clinical and laboratory diagnostics.

The competence and practical skills of postgraduate students are however far greater. Thus at certain times, they serve as undergraduate students' teachers and are a natural connection between patients, students and instructors. Very often the PhD students work with undergraduate students and collaborate with them in various clinical cases,

experiments, realisation of scientific projects. In a sense, this is also necessitated by the relatively limited number of the clinical staff.

10.1.3. Undergraduate students and the importance of evidence-based medicine, scientific research and life-long learning;

There are various ways to make undergraduate students realise the importance of evidence-based medicine. First, they are trained in subjects using mathematical methods of objective assessment of biological phenomena, including those related to pathology and treatment of animals. Examples are the courses in Animal Genetics and Breeding, Informatics, Biostatistics, Epidemiology and Preventive Medicine. Furthermore, the course of Organization of the experiment teaches scientific methods of experimental practice and internationally approved principles of animal welfare. Various statistical methods for analysis the results have also been introduced.

Second, during the studies, especially in the preparation of written reports, hospital papers (reports and analyses), the students draw information from the practical and clinical classes; from what they have seen themselves. When making a bibliographic reference study, they use information from world-renowned sources, thanks to the library base and the computer network at the university.

Undergraduate students' motivation for bibliographic search, scientific methods and research techniques, and writing of scientific papers

During the preparation of the mandatory reports during their studies, students are looking for the necessary information through appropriate bibliographic search, acquaintance with specialised literature in certain fields and on specific issues. More prominent students participate in scientific forums present their research results even before the graduation. Together with their instructors from the FVMSZ they are co-authors of scientific papers. Even less often, students post on their own or in cooperation with other researchers.

Undergraduate students' voluntary involvement in research programmes

During the educational process, the passing of the semester and state examinations, participation in the clinical and laboratory diagnostic activity some students with increased interest and abilities in a certain scientific field are outlined. Typically, in the preparation of classes, patient care or research, they come in contact with their instructors. In these cases spontaneous involvement of students in research programs is achieved thanks to the resulting interaction and cooperation. In other cases, instructors seek assistance and offer participation in research to students with excellent performance. The participation of students in research programs is not obligatory. It is entirely voluntary. The easiest way to integrate students into the research process is by joining them to the team of scientific projects.

The most powerful stimuli that attract students to scientific and experimental activity are associated opportunities for more intensive work with patients, participation in writing articles, presenting them to scientific forums, contacts with colleagues from other universities and abroad, trips. Unfortunately, most of the distinguished students in this respect do not continue their studies at the FVMSZ after graduation.

10.1.4. Continuing education programmes at the FVMSZ meet the needs of the profession and the community

PhD programmes

The admission and preparation of PhD students at the FVMSZ is done through PhD programmes accredited by the National Agency for Evaluation and Accreditation

(NAEA). FVMSZ has the necessary capacity to train PhD students. Doctoral students acquire specific knowledge and skills that build on those of the Master's degree. The specificity of each accredited PhD programme corresponds to the profile of the primary unit, where the relevant subjects related to the specific scientific field are taught. The documents, regulations and standards related to the PhD programmes at the faculty are in compliance with the current legal framework, are constantly updated and correspond to the content of the relevant criteria from NEAA requirements.

The FVMSZ trains students in 13 PhD programmes. All of them are from the higher educational field "Agricultural Sciences and Veterinary Medicine", professional field "Veterinary medicine". The training is done on an individual plan (in the case of the assistant professors with employment contract), full-time (including state-funded and paid) as well as part-time. PhD students are given the opportunity to express themselves and improve in this unique area of our academic environment. In addition, innovative approaches to acquiring knowledge and skills enable successful communication and integration with other research and educational environments, particularly in the fields of medicine, biology, pharmacy, engineering and biotechnology.

Continuing education

Training in veterinary medicine requires the acquisition of comprehensive knowledge. Profiling during the course of study is difficult. This necessitates a post-graduate training which, combined with the experience gained in practice, helps to improve the knowledge and the skills in a specific field.

In line with the European requirements for the so-called continuous professional development, the FVMSZ mission is to carry out post-graduate training (lifelong learning) and continuing education. It aims at increasing the qualification of practicing veterinarians and other specialists with higher and secondary professional education as well as re-qualification of persons with secondary education.

This type of training is organised and coordinated by the Continuous education department at the faculty in close contact with the Dean's team. In addition, the BFSA and the professional organisation of veterinary surgeons in the Republic of Bulgaria: the Bulgarian Veterinary Union are also engaged. This activity is carried out in accordance with the Statute for Postgraduate Qualification (Continuing Education) at the TrU (**Appendix 10-3**). and Statute for the Organisation, Activity and Management of the FVMSZ .

In response to the needs of the business and the state, the following types of postgraduate training in different directions and forms have gained increasing interest in the last years:

- Long-term (18 months) continuing education courses for veterinary surgeons.

The FVMSZ offers training in 19 long-term courses. During the last 3 years, a total of 29 attendees have finished 11 courses (Table 10.1.4):

- Short-term (up to 6 months) continuing education courses for veterinary surgeons.

For the last three years, a total of 803 attendees were trained in 23 courses (Table 10.1.4):

After successful completion of the curriculum and having passing all forms of control over the acquired knowledge, attendees receive a "Professional Qualification License" is issued, and those enrolled in short-term forms - "Professional Qualification Certificate ". For short-term DDI forms that do not include mandatory control of the knowledge obtained, a "Certificate of Participation" is issued.

Appendix 10-4 presents a short synopsis of all continuing education courses carried out in the FVMSZ.

The overall activity on improving the staff qualification is self-financed and self-supported.

- *Extramural and other forms of continuing education (lectures, seminars, information meetings etc.)*

The extramural forms of post-graduate training are continuously active. At the joint initiative of the BFSA, the National Agricultural Advisory Service (NAAS) and the Regional Directorates of the BFSA, producers and traders of medicines, lecturers from the FVMSZ perform regular presentations at dozens of seminars on "Current problems of bee pathology" "Farm animal pathology" as well as "Diseases of pets" held with practitioners from all over the country.

For the last 3 reporting years, different public events and forums have been organised in the FVMSZ for popularization of the knowledge and scientific achievements of the instructors. Thus, for example, the National Veterinary Medical Exhibition "BULVET MEDICA", organised by VMF, plays an important role to disseminate own and worldwide experience in the field of veterinary medicine. This event started in 2001 and there are already 11 editions, the latter being held in October 2018. BULVET MEDICA is the only event in Bulgaria that gathers together veterinary professionals on a national scale. During the exhibition, along with the exhibition part, which is attended by dozens of companies producing and importing veterinary medicines, a scientific-educational programme is also held. Instructors from the FVMSZ and guests from the country and abroad perform lectures on different topics to veterinary practitioners and farmers (BULVET MEDICA Programme for 2018 is given in **Appendix 10-5**).

In addition, companies make presentations of various products for veterinary medicine. The academic community together with representatives of the BFSA, the professional organisation and other NGOs are discussing the most important issues and outline the problems and priorities in the development of the veterinary activities in Bulgaria.

The FVMSZ organises and performs regular scientific forums to promote knowledge. During the last years, in October of odd years, the faculty hosts international scientific conferences. The last one: "Veterinary Medicine in Service of People" was in 2017. On it, our and foreign scientists working in the field of veterinary medicine and other close fields of science were invited to present innovative ideas, results and achievements through plenary reports, oral reports and posters. The conferences became very popular among veterinary practitioners.

On the 2017 conference, the total number of participants was 327, 170 of them with more than one report. The scientists from the FVMSZ were 76, those from other Bulgarian institutions – 65. The foreign participants were 186, from which 109 in more than one report. The PhD students that took part in the conference were 18 (4 from the FVMSZ and 14 foreign ones). Undergraduate students' number was 16 (11 from the FVMSZ and 5 foreign). A total of 118 reports were presented: 8 plenary, 47 oral presentations and 63 posters. The 2017 conference programme was with exclusively practical focus (**Appendix 10-6**). In the autumn of 2019 will be its second edition.

The FVMSZ also hosts different training seminars organised by associations, companies, professional unions; in 2015-2018 they are as follows:

- 2015: Animal Welfare Symposium "Improvement of animal welfare – practical approaches", organized by the European Commission, Directorate-General for Health and Food Safety
- 2016: Small Animal Seminar in Parasitology and Infectious Diseases
- 2017: Practical dermatology and emergent infectiology
- 2017: Feline gastroenterology, organised by the BASAP

- 2018: Parasitic and Infectious Practices
- 2018: What every Veterinarian should know about Exotic pets

The exact number of participants is not recorded

10.1.5. Prospected number of students registered at post-graduate programmes for the next 3 academic years

All efforts are made to increase continuously the number of students registered at post-graduate programmes in the near future, including by introduction of programmes in English

10.1.6. Procedures related to research, continuing and postgraduate education programmes at FVMSZ

The admission and training of PhD students is carried out according to the normative documents in force. The accreditation of each doctoral program is carried out by the National Evaluation and Accreditation Agency for a term of 6 years.

The specific research subject is determined by the achievements and potential of the training unit, most often the department. At the beginning of each calendar year, upon proposal of the departments, approval by the Faculty Council and the Academic Council, an application is made to the Ministry of Education and Science for the admission and funding of PhD students in the next academic year. Once approved, an announcement is posted on the University's website and in a central daily newspaper.

Prospective PhD students submit their applications and documents. The procedure for approved candidates was already explained.

Admitted PhD students are trained according to an individual study plan. The research activities of state-funded PhD students at the faculty are funded with about 3,000 EUR.

The different postgraduate forms of study have their own curriculum, distribution of the teaching material (lectures, seminars, practical classes) with the corresponding workload. The curriculum clearly outlines the hours, exams, and knowledge assessment criteria. The main and additional literature is mentioned.

Short-term forms of study have only a curriculum developed by the lecturers leading the relevant courses which on a proposal of the course manager, are approved by the Faculty Council. Most often they are coordinated with the BFSa and the Bulgarian Veterinary Union.

The post-graduate training at the faculty is carried out by the existing academic staff and, if necessary, external lecturers are invited against a fee in accordance with the law.

The TrU website provides detailed information on various forms and courses for postgraduate specialisation at the Faculty of Veterinary Medicine. Candidates for postgraduate training are enrolled by order of the Rector, based on an application for individual specialisation or a group course to the Dean of the FVMSZ.

The inclusion of undergraduate students and PhD students in research is a criterion in the assessment of instructors and their career development. In addition, the higher number of students involved in research gives priority to the rating and accreditation of the faculty and PhD programmes. The higher number of PhD students and students in the research programmes ensures a more active, dynamic and efficient activity, which inevitably has a positive impact on the learning process.

Table 10.1.1. – not applicable**Table 10.1.2. Number of students registered at postgraduate research training degrees:**

	2017/2018	2016/2017	2015/2016	Mean
PhD	16	10	14	13
Others (please specify) –	n.a	n.a	n.a.	n.a
Total	16	10	14	

Table 10.1.3. Number of students registered at other postgraduate programmes (including any external/distance learning courses)

	2017/2018	2016/2017	2015/2016	Mean
Veterinary Administration	7	1	10	6
Sanitary Microbiology and Food Safety	17	18	25	20
Total	24	19	35	26

Table 10.1.4. Number of attendees to continuing education courses provided by the FVMSZ

LONG-TERM COURSES	2015/2016	2016/2017	2017/2018	Mean
Veterinary sanitary expertise of animal foodstuffs	2	1	4	2.3
Food microbiology	-	3	-	3
Epidemiology and prevention of infectious animal diseases	1	2	-	1.5
Veterinary bacteriology and microbiological diagnostics	-	1	-	1
Veterinary surgery	2	3	1	2
Small animal parasitic diseases	1	-	-	1
Pharmacology	-	2	1	1.5
Clinical laboratory diagnostics of non-infectious animal diseases	1	-	-	1
Large ruminant pathology	1	-	-	1
Small ruminant reproduction	-	-	1	1
Veterinary dermatology	-	1	1	1
Total number of attendees; long-term courses:	8	13	8	10
SHORT-TERM COURSES	2015/2016	2016/2017	2017/2018	Mean
Animal protection, safe and humane transport of animals	233	177	209	206.3
Humane treatment and welfare of animals in pet shops, kennels and shelters	25	26	18	23
Humane treatment and welfare of animals in slaughterhouses	7	4	5	5.3
Humane treatment and welfare of animals used in experimentations			36	36
Ultrasound of genitals in small ruminants	1	-	4	2.5
Artificial insemination in large ruminants	2	10	2	4.7
Artificial insemination in small ruminants	-	3	8	5.5
Artificial insemination in mares	-	-	1	1
Artificial insemination in dogs	-	5	-	5
Endoscopy and echography in dogs and cats	1	-	-	1
Endoscopy, echography, ECG in dogs and cats	-	-	1	1

Reproduction and reproduction disorders in dogs and cats	-	-	1	1
Ultrasound application in large ruminant reproduction	-	-	3	3
Ultrasound application in swine reproduction	-	1	-	1
Analysis and processing of semen for assisted reproduction in ruminants	-	-	1	1
Basics of ultrasound diagnostics in dogs and cats	-	1	1	1
Veterinary ophthalmology	1	-	1	1
Anaesthesiology in dogs and cats	1	-	1	1
Small animal surgery	1	1	-	1
Important surgical diseases in dogs and cats	2	1	-	1.5
Beekeeping and bee health	1	-	2	1.5
Food safety systems	3	1	-	2
Management and legal issues of veterinary services	1	-	-	1
Total number of attendees; short-term courses:	279	230	294	268

Table 10.1.5. List of the ongoing research projects at the FVMSZ

Ref. No	Title	Participants from the FVMSZ	Funding, €	Years
01/17	Hepatitis E: first screening of seroprevalence in pigs from South Bulgaria	Total - 2 PhD students - 0 Undergraduate students - 0	4,800	2
02/17	Comparative studies between conventional, express and RT-PCR laboratory methods for detection of avian influenza A virus and Newcastle disease virus in avian samples with mono- and co-infections	Total - 3 PhD students - 0 Undergraduate students - 1	3,200	2
03/17	Assay of concentrations of ¹³⁷ Cs, ¹³⁴ Cs, Hg, Pb, Cd and ⁴⁰ K in edible wild mushrooms from the Batak mountain. Calculation of the annual effective dose	Total - 2 PhD students - 0 Undergraduate students - 0	3,500	1
04/17	Methods for isolation and culturing of primary epithelial cells from ruminant udder	Total - 4 PhD students - 0 Undergraduate students - 0	4,000	2
05/17	Molecular identification of members of the SIG (<i>S. intermedius</i>) group by PCR-RFLP analysis	Total - 4 PhD students - 0 Undergraduate students - 1	2,800	2
06/17	Pathomorphological studies in spontaneous pneumoenteritis syndrome in calves caused by bovine coronaviruses	Total - 4 PhD students - 0 Undergraduate students - 0	3,000	2
07/17	Early sex identification in sturgeons (<i>Acipenseridae</i>) by ultrasound and biopsy. Monitoring of some haematological and hormonal parameters	Total - 5 PhD students - 0 Undergraduate students - 1	3,300	2
08/17	Distribution and histochemical features of mast cells in the intravesical part of porcine ureter	Total - 4 PhD students - 0 Undergraduate students - 1	1,650	2
09/17	Transvaginal ultrasound detection of early pregnancy and foetus number in goats	Total - 5 PhD students - 0 Undergraduate students - 2	2,600	2

10/17	Comparative morphological studies of thyroid, parathyroid, ultimobronchial and thymus glands in broiler chickens, turkeys and ducks	Total - 1 PhD students - 0 Undergraduate students - 0	750	1
6HΦ/17	Veterinary Medicine in Service of People	Total - 4 PhD students - 0 Undergraduate students - 0	1,250	1
01/18	Quantitative morphology of spontaneous squamous cell carcinomas in cats	Total - 4 PhD students - 0 Undergraduate students - 1	3,200	2
02/18	Determination of total polyphenols, radical activity, phospholipids, metal-binding activity, fatty acid composition and amino acids in nine wild mushroom species	Total - 1 PhD students - 0 Undergraduate students - 0	1,350	2
03/18	Investigation on the effect of long-term phytotherapy on equine osteoarthritis	Total - 6 PhD students - 1 Undergraduate students - 2	2,200	2
04/18	Comparative studies on trochlear wedge recession and trochlear block recession for treatment of patellar luxation	Total - 6 PhD students - 1 Undergraduate students - 1	2,350	2
05/18	Quality and safety of fish and fish products and risk analysis evaluation for <i>Staphylococcus aureus</i> , <i>Vibrio parahaemolyticus</i> , histamine, antimicrobial drug residues	Total - 6 PhD students - 1 Undergraduate students - 1	3,400	2
06/18	Toxicological studies in experimental chronic aflatoxicosis in Pekin ducks	Total - 9 PhD students - 0 Undergraduate students - 2	3,900	2
07/18	Validation of a method for assay of tetracyclines in serum of sheep/goats/rabbits	Total - 1 PhD students - 0 Undergraduate students - 0	1,250	2
08/18	Granulocytic anaplasmosis in cats: first seroepidemiological screening in South Bulgaria	Total - 2 PhD students - 0 Undergraduate students - 0	3,900	2
09/18	Comparative studies on three surgical techniques for treatment of cranial cruciate ligament rupture and osteoarthritis development in dogs	Total - 6 PhD students - 1 Undergraduate students - 1	1,600	2
10/18	Diagnostics of laryngeal pathology in horses	Total - 4 PhD students - 0 Undergraduate students - 1	1,700	2
11/18	Investigations on community composition of ectoparasitic insects in goats. Seasonal dynamics and attempts for control of natural phthirapterosis in goats	Total - 5 PhD students - 0 Undergraduate students - 1	3,200	3
12/18	In vivo investigations of the role of chickens as paratenic hosts of <i>Toxocara canis</i>	Total - 1 PhD students - 1 Undergraduate students - 0	800	2
13/18	Microencapsulation of bioactive plant extracts in biopolymer and inorganic matrices	Total - 5 PhD students - 0 Undergraduate students - 2	3,600	2
14/18	Preventive potential of oleic and docosahexaenoic acids against adipogenesis of 3T3-L in vitro	Total - 5 PhD students - 0 Undergraduate students - 1	3,400	2
15/18	Nicotineamide dinucleotide phosphate diaphorase (NADPH-d) reactivity in the intramural part of porcine ureter	Total - 4 PhD students - 0 Undergraduate students - 1	1,600	2

10.2.COMMENTS

The results achieved in postgraduate and continuing education confirm the FVMSZ status as a main centre for continuing and postgraduate training of veterinary surgeons in the Republic of Bulgaria.

In our opinion the FVMSZ academic staff still do not fully realise the possibilities for wider partnership with other research structures and organisations in the country and abroad and especially with the business.

Besides all efforts made to stimulate training in PhD programmes, obviously the recruitment of PhD students is difficult. The process is two-sided. On one hand, for financial reasons, the attractiveness of the PhD degree is insufficient due to the fact that it does not bring any guaranteed benefits. On the other hand, it is necessary to look for reserves and to do more for a better selection of students, to look for and work on programmes to support and fund the research work related to dissertations' subject. Of course, more activity and motivation by both PhD students and their supervisors is needed. However, the main problem with regard to PhD students remains their extremely low monthly remuneration in the form of a scholarship that the state provides for this category of researchers.

10.3.SUGGESTIONS

The development of the FVMSZ as the most important training center for veterinary surgeons in Bulgaria, more work should be done in the following directions:

- Development of new curricula in accordance with the EU requirements as well as proposed by the professional unions, BFSA and personal proposals;
- Improving the quality of training;
- Organisaition of courses on actual topics
- Expanding the range of subjects and forms of training;
- Strong emphasis on distance and e-learning (virtual clinics, online courses, introduciton of digital technologies in the education process);
- Expanding the forms of external training;
- Emphasis on the outcome of training (not on presence in courses but on acquired knowledge and skills - assessment through adequate forms of examination);
- More extensive advertising in media and internet to promote post-graduate training in the VMF;
- Active participation in the development and implementation of the system of continuing professional development of veterinary surgeons in the country and affirmation of FVMSZ as a main provider of educational product.

11. OUTCOME ASSESSMENT AND QUALITY ASSURANCE

11.1. FACTUAL INFORMATION

11.1.1. Outcome assessment and quality assurance strategy

The strict compliance with Ordinance on State Requirements for Higher Education in the Specialty "Veterinary Medicine" guarantees to a very high extent that future veterinary specialists have acquired the necessary knowledge, skills and competences described in the National qualification framework and Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications (Official Journal of the European Union, L 255/12, 30.09.2005). The documentation is harmonised also with Directive 2013/55/EC of the European Parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System (Official Journal of the European Union, L 354/132, 28.12.2013).

The Trakia University has implemented a system for development of endorsement of documentation related to training in all qualification degrees and forms of training

The system describes the *uniform academic standards* for development of academic plans and course programmes. Thus, changes in content of core, elective and facultative subjects are discussed by department councils, proposals are presented to the Academic Affairs Committee of the FVMSZ, then follow sanctions from the Faculty Council and the Academic Council of the TrU. Changes in the current documentation are made considering the opinions of students and employers and compliance to the FQEHEA. Attempts are mainly focused on integration of components and elements of study programmes to achieve a uniform framework.

Fulfilling its mission, the VMFSZ pursues long-term and short-term goals leading to more advanced training of veterinary specialists in line with the current level of knowledge and current demands of the labour market. The harmonisation of establishment's mission and declared goals on one hand, and areas of professional realisation and qualification level on the other, demonstrates the stability of the establishment, its strength and activity, and its social value. The comparison between the main functions of the FVMSZ and the principles in the State Requirements for Higher Education in the Specialty "Veterinary Medicine" reveals its complete adequacy in terms of objectives and tasks' fulfilment.

The FVMSZ's primary goal is to provide not only a sound theoretical basis, but also technical skills that are useful in different situations to newly graduated veterinary surgeons, fulfilling the requirements of the Day One Competence philosophy of ESEVT.

The essence of these concepts are at the background of the so-called "Qualification characteristics of the Master's degree in veterinary medicine" (**Appendix 11-1**). This is a primary document associated with planning, organisation and management of training process. It represents the society's demand to the training of future veterinary surgeons assuming responsibility for animal health, the safety of foods of animal origin, maintenance of adequate environmental conditions in the livestock sector, and public health prevention from zoonotic diseases and other risks stemming from human interaction with the animal world. This document is an open system, prepared to respond to all changes in legal framework of educational and qualification activities of the FVMSZ, it is therefore subject to update, particularly following major changes in national and EC legislation in the field of education, veterinary practice and associated activities.

Teaching and instruction at the FVMSZ is under constant administrative control, conducted through the principles of academic hierarchy, legality, acting institutional rules and principles, as well as university traditions.

A strong aspect of the FVMSZ's administrative organisation is the established quality control system, which is founded upon the shared responsibility of every instructor under the constant control of the instructors responsible for each course, department chairs, department council, and conducted on the grounds of regulations approved by the Academic Council of Trakia University.

In order to implement the policies for ensuring and guaranteeing the quality of the training received by the students and specialisants at the FVMSZ, a few primary priorities have been adopted:

- Control over the quality of activities related to organising and conducting education;
- Control over the system ensuring the level of students' academic preparation;
- Control over the system for awarding and transfer of credits, and the student mobility system;
- Control over the system for student participation in research;
- Control over the quality of administrative services for students;
- Control over the quality of the activities related to providing the proper material-technical and technological environment for education;
- Control over the system for keeping track of the career development of specialists who have graduated from the university, and over the system for feedback from employers and recruiters.

11.1.2. Form by which the strategy, policy and procedures are made formal and are publicly available

The instruments necessary for ensuring the quality of education at the FVMSZ corresponds directly with the main postulates of the *Quality Handbook*, which is issued for the whole university (**Appendix 11-2**). It specifies and details the various elements of the *Quality Management System (QMS)* in accordance with the requirements of the Higher Education Act of the Republic of Bulgaria.

11.1.3. Description of the regular publication of up to date, impartial and objective information, both quantitative and qualitative, about the educational programmes and awards the Establishment is offering

The FVMSZ is a state-run educational and scientific institution, performing a mission and goals of national significance. In order for them to be visible to society and clearly recognisable on all levels of the social-economic environment, it is necessary to conduct a policy of constant exposure for all university activities, using the legally-defined methods and means to achieve this goal. In this relation, the Faculty's administration makes efforts to expand and develop all possible forms of social awareness. The FVMSZ has developed a special electronic profile on the Trakia University website, which presents all main activities – education, scientific research, diagnostics, treatment and consultation, post-graduate qualification and specialisations etc.

The FVMSZ website presents the current curricula in Bulgarian and English, an extensive database on the organisation of the educational process, the opportunities for practical training and careers for graduates of veterinary medicine. This also applies to the Master's

programmes after completed higher education: Veterinary Administration, and Sanitary Microbiology and Food Safety. There is also information on all current programmes for post-graduate specialisation and qualification in long- and short-term training courses. The website also includes the currently active scientific projects and research tasks under the leadership and with the participation of the Faculty's instructors, students and PhD students.

The services provided by the FVMSZ are also clearly presented and objectively visualised on the webpage with links showing the primary sub-divisions and activities within the Faculty.

A greater public representation of the FVMSZ is also achieved through the periodic events, such as the National Veterinary Medical Exhibition "BULVET MEDICA" taking place every second year, whose organisation is handled entirely by the FVMSZ and has been held 11 times.

Apart from the display of equipment, medicines and supplies for veterinary medicine, the expo also includes a science-themed and presentation programme prepared by the instructors and researchers of the FVMSZ. Student participation has been increasingly visible during the last few events. It would not be an exaggeration to say that this national public event of the Faculty is one of the most important veterinary medical events in the country as a whole.

The FVMSZ participates actively in all events related to presenting the specialties and activities of the university. These include the prospective student fairs, which take place in the capital and other major cities in the country, as well as university forums of scientific or organisational-methodical nature.

The FVMSZ administration and academic staff have managed to compile a new and extended edition of the "*Almanac of the Faculty of Veterinary Medicine*" within the last 5 years, which presents all instructors that were part of the Faculty since its founding in 1923 up until present day, with their scientific publications, defended dissertations, written study aid books, monographs, etc. (**Appendix 11-3**).

Another positive aspect of presenting the Faculty before the scientific community was the publishing of a "*Chronicle of the Faculty of Veterinary Medicine*", which presents (in Bulgarian and English) the academic and technical staff, as well as the activities within the various sub-divisions of the Faculty (**Appendix 11-4**). Recently, a photo album of similar nature was issued in honour of the 95th anniversary since the founding of the FVMSZ (**Appendix 11-5**).

The Faculty administration and instructors regularly make use of the opportunities to publish materials, related to the past and present of the FVMSZ, in national scientific and applied-science publications. These are most commonly publications and interviews for the professional print periodicals of the Bulgarian Veterinary Union (BVU) or the Bulgarian Food Safety Agency (BFSA).

The Faculty's administration utilises the opportunities provided by the electronic media, both regional and national, to publicise the Faculty's activities. A retrospective film about the FVMSZ and its presence within the social and academic life of the Republic of Bulgaria was produced in 2018 (**Appendix 11-6**).

The FVMSZ has earned a strong social presence over the last few years by building the *Specialised Museum Collection "Veterinary medical practice in the Republic of Bulgaria"*, which presents chronologically the development of the veterinary medical science and practice in the Republic of Bulgaria as a whole, and in its specific sub-fields. Through its museum, the FVMSZ aims to preserve for posterity the various artefacts of the emergence and development of veterinary medicine in the country, as well as its

accomplishments over the last 140 years. A separate exposition in the museum presents the development of veterinary medical education in Bulgaria, especially the FVM, which was founded in 1923, and whose rightful heir is the Faculty at Trakia University.

11.1.4. Quality assurance procedures

Management of education quality at the FVMSZ begins as early as the stage of *student admission*. The proper selection is an important element of ensuring success throughout the education process. Throughout the students' training, the proper structuring and distribution of the time for the courses included in the curriculum is of great importance, along with the content of the syllabi. With the latter, it is particularly important to observe their balance regarding theoretical instruction and practical training.

Another important element of the system ensuring the quality of education at the FVMSZ is the *student evaluation of teaching quality*. The students' opinion is surveyed at least once per academic year. This element is regulated through the *Rules and procedures for obtaining student evaluations of the quality of teaching* (**Appendix 11-7**). To this end, the FVMSZ has developed a *survey card* (**Appendix 11-8**). The surveys are anonymous and serve to evaluate the Faculty's academic staff. The summarised data are presented to the Dean and the Trakia University Rector's administrative team.

The complex assessment is completed after processing the surveys anonymously filled in by the students. They are used to evaluate the Faculty's instructors and provide important additional information about the quality of teaching. Every instructor receives a summary from the student evaluation results, and can use it to improve their future work. The summarised data are presented to the Dean, as well as the TrU Rector's team. The results from the survey of the students' opinion on the quality of education throughout the reporting period are presented in **Appendix 11-9**. An important element of the education quality management activities is the implemented information system INFO TRUE. The information programme it is built upon the personal data of every student – from their status at the time of entry into the higher education institution, through their student standing, all the way to issuing their diploma of completed higher education.

The FVM has an active Quality Management System in line with the professional field specifics. The methodical control over the quality management process on the TrU level is conducted by the administrative Department of Quality and accreditation, while on the level of the FVMSZ, this work is performed by the Associate Dean of Academic Affairs together with the expert of tuition quality control.

On the level of individual departments, *quality of education supervisors* are appointed to conduct the direct control through the organised surveys, attestations, etc. The quality management activities are registered in a Journal, while the criteria for the evaluation of activities related to the educational process are announced publically on the department and section level, and are available to the students.

In accordance with the Statute of the FVMSZ at TrU, a strict regimen of completing the tasks related to students' education and their engagement is introduced. The relevant activities are regulated through orders and other administrative acts by the Dean. In case these administrative acts are violated by students, instructors or employees related to the educational process, they bear the proper responsibility for their actions.

Apart from the internal system for quality of education management, it is also subject to *external control*. It comprises periodic accreditation procedures for the professional field of veterinary medicine, as well as for the separate Master's programmes, and of the FVMSZ as an educational establishment.

The procedures and criteria for conducting the accreditation process are detailed within the regulations of the National Agency for Evaluation and Accreditation (NAEA) of higher education at the Ministry of Education and Science. The accreditation expert groups include instructors and scientists from similar educational and scientific institutions, as well as an overseeing expert from the agency itself. Apart from reading the self-evaluation report prepared by the FVMSZ administrative team and the appendices attached to it, the experts also come for a visit on site, during which they have the opportunity to personally inspect all details related to the quality of education and the evaluation of students throughout their tuition.

Apart from the procedures for accreditation, the quality of education at the FVM is also an element of the so-called *Rankings of the higher education institutions in the Republic of Bulgaria*. It is conducted annually by an independent non-governmental organisation chosen via contest by the Ministry of Education and Science. It is founded on a system of criteria and parameters, some of which concern the quality of education. Here it is based on the student evaluations on one hand, and the opinions of employers who hire veterinary medical specialists on the other. The results from the university rating studies are published officially on the Ministry of Education and Science web site, and have played a major role in the formulation of universities' budgets on the professional aspect, over the last few years. Over the last three years, the FVMSZ has always assumed one of the top two ranks in the professional field of veterinary medicine (**Appendix 11-10**).

11.1.5. Publication of results related to quality of education management

The results from the work of the quality of education management are available to all interested parties within the university. This is particularly true for data from audit visitations conducted at the University, as well as the Faculty and its structures. The university's committee for quality of education performs annual *internal audits* the subject of which are the following components of the *Quality Management System*:

- The quality of planning, organising and conducting education;
- The system for establishing the students' level of preparation;
- The system for awarding and transferring credits, and student mobility system;
- The system for student participation in research activities;
- The system for interaction with business, professional, government and non-government organisations;
- Quality of the material-technical and technological environment for education, work, communication;
- Quality of administrative services for students;
- System for keeping track of the careers of students who have graduated from the university, and the system for feedback from employers and recruiters;
- Post-graduate training and further qualification.

The information from the conducted internal audits and the proposed recommendations is presented to the Trakia University administration, as well as the Faculty's administrative team.

As was already indicated, the control body of the FVMSZ is its *General Assembly*. In accordance with the current Statute of the FVMSZ, the Assembly is gathered at least once every year. At the end of each calendar year, the Dean's administrative team prepares a report on its activities and the work performed by the Faculty Council. At the end of a Dean's term, a concluding reporting and elective meeting of the General Assembly is held, which elects a new Dean and the new Faculty Council. At the annual and concluding

meetings of the General Assembly, the Dean's administration presents, through its report, the results in terms of what was or was not achieved by the FVMSZ during the respective period. The analysis always encompasses the results from the undergraduate and PhD student admission campaigns, the data on the state of the educational process per classes and disciplines, results from post-graduate trainings, international cooperation, scientific research, cadre development, as well as an analysis and an evaluation of the provided services – clinical-diagnostic, treatment and consultation.

Furthermore, the FVMSZ administration informs the members of the General Assembly about the institution's financial condition, investments, as well as the state of the budget's income part.

Discussions take place for all of these issues, then proposals are commented on, in order to make decisions.

When there is an urgent need, amendments can be made to the Statute, or a new one can be accepted. The current one was passed in March 2018. It is precisely the General Assembly of the Faculty that accepts strategic decisions for the further development of the institution. Most of these decisions are taken through an open vote and a common majority. Minutes are meticulously taken from every meeting of the General Assembly. Representatives from the administration of the professional organisation (BVU) are invited as guests to the General Assembly, as well as members of the largest recruiter of veterinary medicine graduates – BFSA, and representatives from business - various industry unions and associations, along with non-government organisations.

The FVMSZ has implemented a system for the timely notification of the academic staff about the efficiency related to quality management. The Dean's team conducts constant control and analyses on students' performance in the various subjects and plans for measures to remedy any issues. They are discussed at the Faculty's Academic Affairs Committee, and at the meetings of the Faculty Council. Such analyses are conducted after every final exam session, the Faculty Council makes decisions and gives recommendations for the correction and improvement of the study process. A comprehensive analysis of quality is performed at the end of each academic year and the necessary measures to improve it are drafted. This analysis is accepted and affirmed at a meeting of the Faculty Council

11.2.COMMENTS

The training performed at the FVMSZ is subject of permanent control. It is executed both by state institutions, and by the Quality Management System operating at the Trakia University level.

The Trakia University is certified according to ISO 9001:2015 Quality Management System by the Center for Testing and European Certification, Stara Zagora. According to the Bulgarian legislation, the university and its branches undergo periodically institutional accreditation.

The vocational field "Veterinary Medicine" is subject to accreditation by the NAEA at 6-year periods.

SER 2019: CONCLUSIVE HIGHLIGHTS

1) *The Faculty of Veterinary Medicine at the Trakia University, Stara Zagora, is an affirmed educational and scientific establishment in the Republic of Bulgaria, with a calling to train specialists, solve scientific problems, and provide various services or consultancy activities in the field of veterinary medicine.*

2) *As the oldest school of veterinary medicine in the country, the FVMSZ has preserved and continues to develop the traditions and good practices in teaching veterinary medical knowledge to Bulgarian and foreign students.*

3) *Throughout the years after the last regular visit by the experts of ECOVE, the FVMSZ has made significant progress in the development of its curricula, with a particularly notable achievement being the introduction of the English language programme for foreign students.*

4) *The scientific and educational infrastructure of the FVMSZ was considerably improved, while the academic staff's development is continuously stimulated. This is particularly visible in the improvement of the available facilities used for training in both the fundamental and pre-clinical courses, but most notably in the clinical training sector, which combines various forms of subjects taught in specialised units or in the field.*

5) *The approved new curriculum and updated course programmes ensured, to a great extent, the provision of contemporary knowledge in the field of veterinary medicine.*

6) *The passed and affirmed new Statute of the FVMSZ has generated an environment stimulating the development and expansion of the educational forms, in order to foster research activities and bring the institution's regulation to a higher level.*

7) *The FVMSZ has become an even more relevant national diagnostic and consultative centre in the field of veterinary medicine, highly sought by citizens, farmers and the owners of factories in the food production industry.*

8) *The FVMSZ's international relations and partnerships became considerably more dynamic.*

9) *The system for post-graduate training of veterinary specialists continued to grow and improve through diversification of lifelong education forms.*

10) *In spite of the relatively low funding of the institution, compared to developed European countries, the FVMSZ has made serious steps towards improving its facilities:*

- *Major development of the available facilities, in terms of buildings for educational, research and servicing activities, as well as student accommodation.*
- *A major leap in the improvement of the Equine Clinic, Farm Animal Clinic, and the Faculty's Biobase.*

- *Modern high-tech educational, scientific and diagnostic equipment that has been purchased.*
- *Despite some difficulties, the FVMSZ's relations with businesses are developing, with regard to the study process, research, as well as in developing mutually beneficial projects.*
- *Considerable steps were taken towards creating sustainable habits with regard to the biosecurity of the students and staff, and ensuring the welfare of all animals at the FVMSZ.*

The Dean's administrative team, aiming to reach the level of the best examples in veterinary medical education, has identified the following major tasks that are to be solved in the future:

- *Sustainable and determined implementation of the policies for improving the facilities and creating better regulations of the activities within the FVMSZ.*
- *Introduction of state-of-the-art digital training technologies.*
- *Building modern training and research laboratories, enabling active student participation.*
- *More active conducting of policies with the aim of earlier attraction of students towards research activities.*

12. ESEVT INDICATORS

Calculated ESEVT indicators

Name of the Establishment: Faculty of Veterinary Medicine - Stara Zagora		FVMSZ values	Median values ¹	Minimal values ²	Balance ³
Date of the form filling: 11 March 2019					
Calculated Indicators from raw data					
I1	n° of FTE academic staff involved in veterinary training / n° of undergraduate students	0.127	0.16	0.13	0.001
I2	n° of FTE veterinarians involved in veterinary training / n° of students graduating annually	1.212	0.87	0.59	0.622
I3	n° of FTE support staff involved in veterinary training / n° of students graduating annually	1.162	0.94	0.57	0.595
I4	n° of hours of practical (non-clinical) training	851.000	905.67	595.00	256.000
I5	n° of hours of clinical training	712.000	932.92	670.00	42.000
I6	n° of hours of FSQ & VPH training	223.000	287.00	174.40	48.600
I7	n° of hours of extra-mural practical training in FSQ & VPH	36.000	68.00	28.80	7.200
I8	n° of companion animal patients seen intra-murally / n° of students graduating annually	67.037	70.48	42.01	25.028
I9	n° of ruminant and pig patients seen intra-murally / n° of students graduating annually	3.166	2.69	0.46	2.702
I10	n° of equine patients seen intra-murally / n° of students graduating annually	0.917	5.05	1.30	-0.381
I11	n° of rabbit, rodent, bird and exotic seen intra-murally / n° of students graduating annually	5.253	3.35	1.55	3.708
I12	n° of companion animal patients seen extra-murally / n° of students graduating annually	0.000	6.80	0.22	-0.223
I13	n° of individual ruminants and pig patients seen extra-murally / n° of students graduating annually	91.548	15.95	6.29	85.253
I14	n° of equine patients seen extra-murally / n° of students graduating annually	0.000	2.11	0.60	-0.595
I15	n° of visits to ruminant and pig herds / n° of students graduating annually	3.606	1.33	0.55	3.059
I16	n° of visits of poultry and farmed rabbit units / n° of students graduating annually	0.050	0.12	0.04	0.005
I17	n° of companion animal necropsies / n° of students graduating annually	1.739	2.07	1.40	0.339
I18	n° of ruminant and pig necropsies / n° of students graduating annually	3.602	2.32	0.97	2.631
I19	n° of equine necropsies / n° of students graduating annually	0.336	0.30	0.09	0.243
I20	n° of rabbit, rodent, bird and exotic pet necropsies / n° of students graduating annually	2.660	2.05	0.69	1.967
I21*	n° of FTE specialised veterinarians involved in veterinary training / n° of students graduating annually	0.021	0.20	0.06	-0.042
I22*	n° of PhD graduating annually / n° of students graduating annually	0.046	0.15	0.09	-0.042
1	<i>Median values defined by data from Establishments with Approval status in April 2016</i>				
2	<i>Recommended minimal values calculated as the 20th percentile of data from Establishments with Approval status in April 2016</i>				
3	<i>A negative balance indicates that the Indicator is below the recommended minimal value</i>				
*	<i>Indicators used only for statistical purpose</i>				

Raw data for calculation of ESEVT indicators

Name of the Establishment:		Faculty of Veterinary Medicine - Stara Zagora				
Name & mail of the Head:		Prof. Mihni Lyutskanov; e-mail: mihni57@abv.bg				
Date of the form filling:		11 March 2019				
Raw data from the last 3 full academic years		2018	2017	2016	Mean	
1	n° of FTE academic staff involved in veterinary training	101	101	100	100.67	
2	n° of undergraduate students	847	737	792	792.00	
3	n° of FTE veterinarians involved in veterinary training	98	98	96	97.33	
4	n° of students graduating annually	46	66	129	80.3333333	
5	n° of FTE support staff involved in veterinary training	93	93	94	93.3333333	
6	n° of hours of practical (non-clinical) training	851	851	851	851	
7	n° of hours of clinical training	712	712	712	712	
8	n° of hours of FSQ & VPH training	223	223	223	223	
9	n° of hours of extra-mural practical training in FSQ & VPH	36	36	36	36	
10	n° of companion animal patients seen intra-murally	5756	5225	5175	5385.33333	
11	n° of ruminant and pig patients seen intra-murally	322	212	229	254.333333	
12	n° of equine patients seen intra-murally	69	73	79	73.6666667	
13	n° of rabbit, rodent, bird and exotic patients seen intra-murally	437	385	444	422.0	
14	n° of companion animal patients seen extra-murally	0	0	0	0.0	
15	n° of individual ruminants and pig patients seen extra-murally	8594	6527	6942	7354.3	
16	n° of equine patients seen extra-murally	0	0	0	0.0	
17	n° of visits to ruminant and pig herds	288	285	296	289.7	
18	n° of visits of poultry and farmed rabbit units	4	4	4	4.0	
19	n° of companion animal necropsies	121	134	164	139.7	
20	n° of ruminant and pig necropsies	305	285	278	289.3	
21	n° of equine necropsies	27	25	29	27.0	
22	n° of rabbit, rodent, bird and exotic pet necropsies	289	234	118	213.7	
23	n° of FTE specialised veterinarians involved in veterinary training	2.52	1.74	0.9	1.7	
24	n° of PhD graduating annually	7	2	2	3.7	

The boxes within the red frames must be filled in by the Establishment (the other values will be automatically calculated)

APPENDICES

All appendices mentioned in the SER are accessible at <http://uni-sz.bg/truni6/eaeve-visit-2019/>

LIST OF COMMONEST ABBREVIATIONS

BVU – Bulgarian Veterinary Union

EPT – External Practical Training

FVMSZ – Faculty of Veterinary Medicine in Stara Zagora

LDC – Laboratory Diagnostic Centre

NAEA – National Agency for Evaluation and Accreditation

QMS – Quality Management System

TrU – Trakia University

UCDU – University Clinical Diagnostic Unit

VHT – Veterinary Teaching Hospital

VMSC – Veterinary Medicine Students' Council

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