

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

**SELF EVALUATION REPORT
STAGE ONE (SER 1)**

STARA ZAGORA

July 2009

TABLE OF CONTENTS

<i>INTRODUCTION</i>	3
CHAPTER 1. <i>GENERAL OBJECTIVES</i>	5
CHAPTER 2. <i>ORGANIZATION</i>	7
CHAPTER 3. <i>FINANCES</i>	11
CHAPTER 4. <i>CURRICULUM</i>	15
CHAPTER 5. <i>TEACHING AND LEARNING: QUALITY AND EVALUATION</i>	28
CHAPTER 6. <i>FACILITIES AND EQUIPMENT</i>	35
CHAPTER 7. <i>ANIMAL AND TEACHING MATERIAL OF ANIMAL ORIGIN</i>	43
CHAPTER 8. <i>LIBRARY AND LEARNING RESOURCES</i>	51
CHAPTER 9. <i>STUDENT ADMISSION AND ENROLMENT</i>	55
CHAPTER 10. <i>ACADEMIC AND SUPPORT STAFF</i>	59
CHAPTER 11. <i>CONTINUING EDUCATION</i>	63
CHAPTER 12. <i>POSTGRADUATE EDUCATION</i>	66
CHAPTER 13. <i>RESEARCH</i>	68

INTRODUCTION

The Faculty of Veterinary Medicine in Stara Zagora (FVMSZ) is the legitimate successor of the faculty founded on May 11, 1923 as the 7th faculty of the Sofia University. Throughout its 85 years of history, it has achieved numerous significant accomplishments, as the prestigious 14th position in the FAO classification of higher veterinary schools during the 1970-ties.

Briefly, the historical development of the FVMSZ could be divided into six periods:

- First period: The FVM as a part of the Sofia University (1923–1948);
- Second period: The FVM as a part of the Georgi Dimitrov Agricultural Academy (1948–1953);
- Third period: Independent Higher Institute of Veterinary Medicine “Prof. Georgi Pavlov” (1953–1972);
- Fourth period: The FVM as a part of the Reserach and Education Livestock Production Association (1972–1974);
- Fifth period: The FVM as a part of the Higher Institute of Zootechnics and Veterinary Medicine (1974–1995);
- Sixth period: The FVM as a part of the Trakia University – since 1995.

A primary intention of our veterinary education establishment has always been to face confidently the challenges of times, and to achieve a full conformity to the changes in national and international regulations.

FVMSZ was the first higher education establishment that in 1996, received institutional accreditation with the highest grade of very good. This evaluation was confirmed throughout the second accreditation in 2007.

In 2001, the FVMSZ was visited by a group of EAEVE experts as an initial step towards obtaining European accreditation. The team has made the following category I comments:

1. Teaching covering statistical methods, epidemiology and experimental design and validation must be provided;
2. The caseload for practical clinical teaching and necropsy work must be increased for all species;
3. Proper facilities for small animal hospitalisation and care, including post-operative and intensive care, should be established within some of the existing underused space in the clinical block, to function alongside an emergency service;
4. Isolation facilities for small animals should be created.

It should be pointed out that during that visit, the FVMSZ had a temporary and obsolete clinical base that was the main subject of criticism. By present, a large part of negative issues had been corrected, as now the faculty resides in the new clinical facility in the Student’s Campus, built upon an area of about 35,000 m².

The **primary structural changes** since then, consist in:

- reduced number of departments (from 16 to 9);
- introduction of the system of evaluation of teaching and learning and evaluation of teaching staff performance (students’ evaluation also included);

- major changes in the curriculum according to the requirements of EC Directive 36/2005;
- introduction of species-oriented training.

Important problems, that have not been finally solved, are the lack of ability to introduce a 24-hour continuous duty mainly due to financial reasons, and the insufficient number of necropsies available for clinical training purposes. Another significant problem is the lack of comprehensible principles in the distribution of the budget of the Trakia University to all basic units within its structure and the consequent financial deficit for purchasing the necessary equipment.

The most important decisions of the Faculty Council (FC) – the highest collective ruling body, are related to optimization of the number of support staff, the introduction of mandatory courses in paedagogics and foreign language for newly appointed assistant professors, the periodical evaluation of academic staff performance, the delegation of a specific budget to each department together with the right of its management consistent with its needs.

CHAPTER 1. GENERAL OBJECTIVES

1. 1. FACTUAL INFORMATION

The principal mission of the FVMSZ is to produce qualified specialists with higher veterinary education. At the same time, the FVMSZ is a national centre of veterinary science development, innovations, clinical services, continuous education and postgraduate studies.

Graduates of veterinary medicine obtain a Master's qualification degree and are awarded a professional qualification of veterinary surgeon.

FVMSZ is entitled to perform training in a second Master's degree "Veterinary public administration" both state-funded and paid (Higher Education Act, art. 21, para 2), as well as to train professional bachelor students within the framework of the capacity of the establishment. The training capacity of the FVMSZ has been determined by the National Evaluation and Accreditation Agency (NEAA), to be 200 students per year.

The FVMSZ has received programme accreditation by the NEAA for 15 scientific specialties (one with grade "good" and 14 with grade "very good") and thus, is entitled to train PhD students in 14 fields of sciences.

The specialty Veterinary medicine is a state-regulated profession (Decree of Council of Ministers No 136/18.06.2004 and 223/21.10.2005), implicating a high quality of teaching and regulated annual admission.

The FVMSZ trains Bulgarian as well as foreign citizens who have obtained the right to be students in veterinary medicine as per state requirements.

The FVMSZ performed activities related to diagnostics, therapy and prevention of animal diseases through its clinics, laboratories and units, in accordance with the Law on Veterinary and Medical Activities.

The academic staff of the FVMSZ provides expertise, consultations and development initiatives according to their professional qualification to all fields of the economy requiring veterinary medical competence as required by the Bulgarian legislation.

The main mission of the FVMSZ is realized through:

- occasional revisions of the curriculum, resp. syllabuses of courses, by introducing the last scientific and practical advancements on the principle "Education and research belong together";
- close cooperation with state organs (Ministry of Education, Ministry of Agriculture and Food), the National Veterinary Service, the National Diagnostic and Research Veterinary Institute, the Regional Veterinary Services, professional organizations, state-employed and private veterinarians, other veterinary education establishments.
- high level of provided service – training, research, therapeutic, consulting, expert etc.
- innovation and development of the veterinary profession by postgraduate studies and long-life learning by organization of qualification courses, seminars, etc.;
- education of young people, who are open minded, intelligent, and motivated for service to society, with the goal of bringing prosperity to the country;

- affirmation of the faculty status of national centre of education, research and clinical services;
- academic and support staff, and material base conforming to legal requirements and ensuring a high-quality theoretical and clinical education of students;
- broad international contacts through bilateral contracts or participation in international programmes related to both education and research.

The primary mission and aims are determined in the following documents:

- Strategy for development of the Trakia University
- Rulebook of the structure, activities and management of the Trakia University
- Rulebook of the structure, activities and management of the FVMSZ .

These basic documents are periodically updated in conformance with the changes in legislation and the current needs. They are elaborated by specialized committees appointed by the Academic Council with the participation of various specialists, and are then approved by the highest collective ruling bodies: the General Assembly of the Trakia University and the General Assembly of the FVMSZ.

In a certain way, the mission and specific goals are determined from the programme of Dean's mandate that is approved by the FC of the Faculty of Veterinary Medicine and thus, the goals stated in this manifesto for the next 4-year period are the primary ones that are pursued. In his annual report the Dean informs the General Assembly of the FVMSZ about the implementation of his platform's goals, points out the achievements and the failures of his team, and specific solutions to some problems are discussed and approved. In other words, the executive power of the Dean is inspected and approved by the FC on an ongoing basis.

1. 2. COMMENTS

The academic life is characterized by a diversity ensuing from the autonomy of Bulgarian higher education establishments, set in the Higher Education Act and the right to perform independently their overall activities and to determine the future development of the institution. Certain conservatism, resulting from the state-regulated profession of the veterinary surgeon, is proper for veterinary medicine training and in our opinion, this is the primary cause for the sustainable development of the FVMSZ.

Thus, the strongest points of the faculty are coming from the tradition and the understanding that the FVMSZ should be committed on provision of a high-quality education service and its improvement.

The main negative aspects of the FVMSZ are the inadequate financial support, the inadequate level of language proficiency of the academic staff, the small number of long-term specialization carried in renowned higher veterinary schools.

1. 3. SUGGESTIONS

Additional funding is needed, mainly orders from the private practice and business, postgraduate studies, participation in international projects, increase in state subsidy (the funding coefficient) to a level similar to that of human medical sciences.

CHAPTER 2. ORGANIZATION

2. 1. FACTUAL INFORMATION

Faculty details:

Name: Faculty of Veterinary Medicine

Address: 6000 Stara Zagora, Bulgaria

Student's Campus

Trakia University

Phone:042-699 500

fax: 042-670 624

Website: <http://uni-sz.bg/vmf/index.html> (Bulgarian version);

<http://uni-sz.bg/vmf/engl/index.html> (English version)

E-mail: d_dinev@uni-sz.bg

Dean: Prof. Dinko Dinev, PhD, DSci

The Faculty of Veterinary Medicine is among the primary structural units of the Trakia University (Decree of the Council of Ministers 62/1996, Official Gazette 29/1996).

The Trakia University (TU) is founded in 1995 and consists of 5 faculties: Faculty of Medicine, Faculty of Veterinary Medicine, Faculty of Agriculture, Faculty of Paedagogics, Faculty of Economics as well as of 2 colleges: Medical College and Technical College. The approximate number of students in all majors is about 4,200.

The TU is mainly under the supervision of the Ministry of Education and Science, but due to the variety of specialties – also under the supervision of the Ministry of Public Health, and the Ministry of Agriculture and Food.

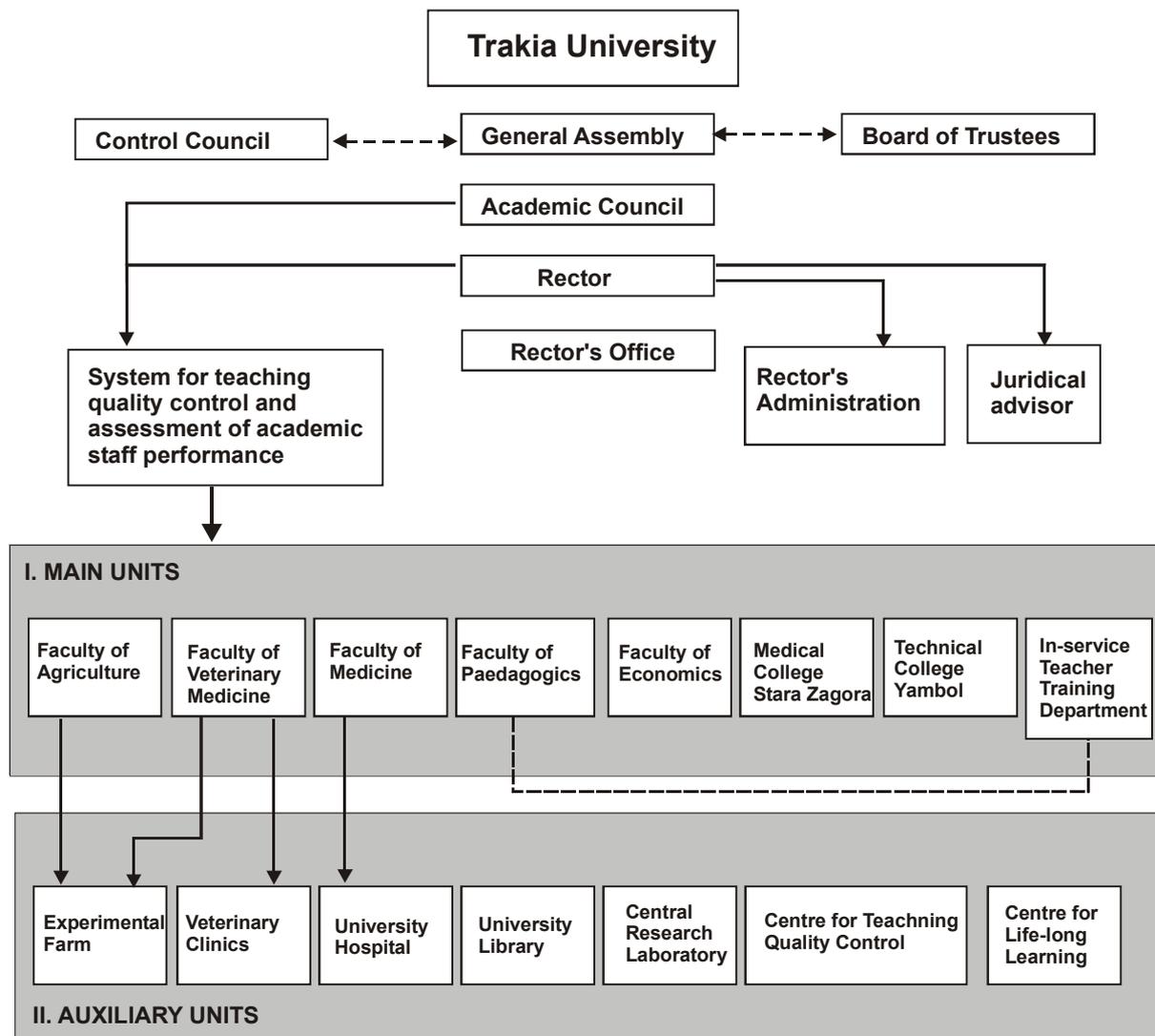
The FVMSZ is also governed and managed by the Academic Council of the university, the Rector of the TU and its own managing bodies.

The FVMSZ is represented in the General Assembly of the TU by 67 delegates: 55 instructors and 12 students) and in the Academic Council – with 10 instructors and 1 student. One of the university vice-rectors is, as a rule, from the FVMSZ quota (for the present mandate, the vice-rector on administrative and economic affairs is from the FVMSZ).

The dean of the FVMSZ is elected from the General Assembly of the FVMSZ (all instructors, representatives of support staff and students) by a secret ballot. Upon Dean's proposal, the Faculty Council (FC) elects three associate-deans, responsible for academic affairs, research and international collaboration, and practical training. Each associate dean is by right chairman of a standing commission in the respective field of activities. The associate-dean of research is also editor of the FVMSZ publication – Bulgarian Journal of Veterinary Medicine, published since 1998 in English.

Also, upon Dean's proposal, the FC elects a person responsible for activities related to postgraduate studies. Together with the Dean, the Rector appoints a Chief Manager on Teaching Quality and Evaluation of Academic Staff Performance.

Apart the Chief Manager, the FVMSZ Commission on Teaching Quality includes also one representative of each of the nine faculty departments.



The FC consists of 35 members (26 habilitated, 5 non-habilitated, 4 undergraduate and PhD students) elected by the General Assembly. The habilitated members of the FC work also as scientific council that is entitled by the National Evaluation and Accreditation Agency to confer the academic rank “associate professor” in 9 scientific fields for the needs of the faculty.

The functions of the FC are various:

- it is a primary collective ruling body that, together with the Dean, bears the entire responsibility for accomplishment of faculty mission;
- makes proposals to the AC for opening, transformation or closing of main and supplementary units;
- approves changes in the curriculum, the nature of specialized training, approves proposals for habilitation of instructors;
- elects and approves the advancement in rank of assistant professors;
- announces competitions for habilitated instructors;
- approves the final reports of research projects;

- approves the annual financial report of the chief accountant of the FVMSZ.

The FVMSZ consists of 9 primary units (departments) and auxiliary units. The structure is compatible with the requirements of the Higher Education Act stipulating that each department should employ at least 7 full-time instructors.

STRUCTURE OF THE FACULTY OF VETERINARY MEDICINE

I. MAIN UNITS

I. 1. Departments

- Department of Veterinary Anatomy, Histology and Embryology
- Department of Pharmacology, Animal Physiology and Physiological Chemistry
- Department of General and Clinical Pathology
- Department of Animal Husbandry
- Department of Veterinary Microbiology, Infectious and Parasitic Diseases
- Department of Veterinary Surgery
- Department of Obstetrics, Reproduction and Reproductive Disorders
- Department of Internal Non-infectious Diseases
- Department of Food Hygiene and Control, Veterinary Legislation and Management

I. 2. Clinical Diagnostic Unit

- Laboratory Diagnostic Centre
- Small Animal Clinic (Registration and veterinary pharmacy, Radiology unit)
- Farm Animal Clinic
- Equine Clinic
- 24-hour Emergency Service

II. AUXILIARY UNITS

II. 1. Dean's Office and student services

II. 2. Continuing Education and Postgraduate Studies Service

II. 3. Administration (accounting office, HR)

II. 4. Editorial office of the BJVM

Each department is managed by a department chair elected in a secret ballot by the Department Council and approved by an open ballot by the FC. The department chair's mandate is 4 years. The Department Council meets at least once monthly. Its duties are:

- to make proposals to the FC for actualization of syllabuses of courses;
- to distribute course load among the instructors of the departments and to appoint the responsible for individual courses;
- to discuss the quality of training and the performance of PhD students and postgraduate training in the department;
- to propose the publication of textbooks, their authors and respective reviewers;
- to approve the research projects, developed by department members.

The activities of all auxiliary organs and commissions are subject of approval by the FC. An exception of this rule is the work of the Chief Manager on Teaching Quality and Evaluation of Academic Staff Performance, which is directly subordinated to the Rector of TU.

The highest veterinary administrative authority– the National Veterinary Service, being the main user of veterinary specialists and thus providing the necessary feedback, is influencing the development of the faculty. The professional organization of practicing veterinarians – the Bulgarian Veterinary Union, is also involved, mainly with regard to changes in the current legislation for improving or introducing a mandatory periodical prequalification of veterinarians within the life-long learning programme.

2. 2. COMMENTS

Because of the place of the FVMSZ in the structure of the Trakia University and the obligations related to the Higher Education Act, the decision-making process is sometimes very slow. Practically, almost all decisions of the FC should be approved by the AC and the Rector of TU.

There is a problem with the dismissal of newly appointed assistant professors that have not shown the necessary competence - according to the Higher Education Law this could occur only after two successive negative assessments, i.e. after 6 years.

2. 3. SUGGESTIONS

The principles of payments due to university administration should be clearly defined. The university budget excess should be maintained at a lower level and each faculty should be allowed to use extra funds by the decision of faculty authorities.

Such an approach could be an alternative in solving the problem with the low remuneration of academic and support staff that is an integral part of personnel's motivation.

Legislative initiatives with regard to the easier dismissal of newly appointed assistant professors in case of poor performance, are needed.

CHAPTER 3. FINANCES

3. 1. FACTUAL INFORMATION

The most important question that has to be answered, is whether the current financial model allows the fulfillment of FVMSZ's mission.

In our view, the general model of higher education funding in Bulgaria should be changed. Now, the budget determined by the Ministry of Education and Science for every higher education establishment, is allocated on the basis of the average number of students, multiplied by a coefficient different for each professional group (see below). Thus, the aim of universities is to keep at all costs their students aiming to ensure a budget, that permits the functioning of the establishment and protection of the staff employed. Of course, this influences considerably the quality of trained students as various compromises are made. On the other side, there is a tendency from the part of universities to propose more and more new majors, many of which are accredited but could hardly be classified in the list of state priorities. Thus, huge financial resources are spent, instead of being directed for development and strengthening of specialties that are important for the national economy and social life.

Professional groups and funding coefficients

Professional group	Coefficient
1. Education, economics, management	1.00
2. Social and humanitarian sciences	1.60
3. Mathematics, engineering, natural sciences	2.30
4. Agriculture sciences and veterinary medicine	4.30
5. Arts	5.00
6. Sports	6.20
7. Medical sciences	9.40
8. National security sciences	7.81
9. Military sciences	10.57

3. 1. 1. GENERAL INFORMATION

It should be said that the procedure for budget distribution for the main units of the university including the FVMSZ, is particularly unacceptable, as it is practically performed by the Rector of the University and the Chief accountant and is only formally approved by the Academic Council. Despite the fact that veterinary medicine is a regulated profession, the funds allocated to the FVMSZ are strongly reduced because of the need to fund the existence of specialties with lower funding coefficients – economical and paedagogical majors, that are taught within the framework of the Trakia University. The subsidy per one student for these specialties is 963.00 BGN, provided that the basic coefficient is 1.0, whereas the funding coefficient of 4.30 for veterinary medicine gives 4,140 BGN per student. For 814 students trained in 2009, the resulting budget is 3,370,672 BGN, a large part of which remains at disposal of the Rector and is personally managed by him.

At present, steps are taken for increasing the basic funding coefficient for veterinary medicine to 9.40 (the same as for human medicine) that would provide 9,052.20 BGN per student and

we have obtained the consent of the Minister of Education and Science to support this request. Although, this could hardly solve the funding problems with the present defective model of financing.

With regard to new building works and the maintenance of existing buildings, they are supported by funds from the common budget of the Trakia University that are approved by the Academic Council and are allocated to the main university divisions.

The purchase of new equipment is mainly on account of approximately 20% of the budget, approved for the FVMSZ by the Academic Council. Additional financial support could be available from research projects (up to 40% of each research projects could be spent on equipment!) and from sponsors. The departments address their propositions with detailed list of requested equipment and its price, and the approval of the expenditure is made by the Academic Council on the basis of Dean's suggestion. This procedure could be executed several times per year provided that there is a surplus of funds in the faculty budget.

3. 1. 2. INFORMATION ON EXTRA INCOME

Table 3.1. Extra income of the FVMSZ (%), in BGN (1 BGN = 0.51 €).

Income	Year 2008	% from total extra income
1) State subsidy	2,728,348	
2) Extra income	642,094	
student fees	383,540	60 %
fees from postgraduate studies	69,215	11 %
clinical services	79,498	12 %
administrative services	2,836	
other sources (conferences, exhibitions etc.)	67,764	11 %
rental fees	27,855	4 %
fine/forfeits	374	
donations	12,982	2 %
taxes on extra income	- 1,970	

The tuition fees, determined by a normative act of the Council of Ministers (No. 96/12.05.2008), are as follows:

- for undergraduate students in veterinary medicine (Bulgarian and EU citizens): 768 BGN
- for undergraduate students in veterinary medicine (non-EU citizens): 3500 EUR
- for PhD students (Bulgarian and EU citizens): 768 BGN
- for PhD students (non-EU citizens, full-time): 5000 EUR
- for PhD students (non-EU citizens, part-time): 3000 EUR

The extra income of the FVMSZ is mainly generated from tuition fees, clinical services, postgraduate studies and continuous education, rental fees, donations. The extra income for 2008 is presented in Table 3.1.

In terms of percentage from the state subsidy, extra income are as follows: for 2006 – 19.6%, for 2007 – 21.3%, for 2008 – 22.5% (see Table 3.2).

3. 1. 3. INCOME (REVENUE) AND EXPENDITURE

Table 3. 2. Income (in thousands of BGN)

	2006	2007	2008
Total budget of the Trakia University (state subsidy)	8,805	11,817	15,082
State subsidy to the FVMSZ	1,949	2,357	2,728
Extra income	447	523	642
Funds for research (from the Ministry of Education and Science)	126	62	101

Table 3. 3. Expenditures (in thousands of BGN)

	2006	2007	2008
Total expenditures	2,394	2,870	3,342
Salaries + social security payments	1,723	2,054	2,540
Other payments	103	164	175
Operating costs related to teaching	356	398	469
including clinical activities	16	16	27
Operating costs related to research	73	63	98
Capital expenditure	130	174	157
Others	82	80	1

3. 2. COMMENTS

Veterinary medicine is a regulated specialty that presumes a high quality of offered training and a strict control on admission. The specificity of veterinary medicine is that unlike other specialties, it requires the maintenance of well equipped clinical facilities.

The proportions of own income that the FVMSZ could retain, depends on the origin of income: the faculty retains 100% of funds coming from examination fees, sponsorship, and international contracts. The net income generated by postgraduate studies and clinical services is distributed as follows: 3% for the University administration, 27% - for the FVMSZ and 70% - for staff remuneration.

3. 3. SUGGESTIONS

As the FVMSZ is a state higher education establishment, the increase in the funding coefficient to a value equal to that of other medical sciences (as mentioned above) ranks first in priority for us. On the second place, we have to seek options to generate income for the faculty from training of foreign students in English, from research, clinical services, postgraduate studies etc.

With regard to the academic autonomy and the independence in taking financial decisions, it is only in the framework of the FVMSZ budget, approved by the Academic Council, that is generally much smaller than due financing.

The distribution of the budget among the different university units should be done under strict observance of the provisions of the Higher Education Act, art 90, para 2.

The necessary steps to the Ministry of Education and Science should be made, in order to remove the specialty veterinary medicine from the group of agricultural sciences and to increase its funding coefficient near to that of human medicine.

CHAPTER 4. CURRICULUM

4. 1. FACTUAL INFORMATION

The curriculum in the FVMSZ is developed according to Bulgarian legislation about state-regulated professions. The government had published obligatory state requirements for veterinary medicine education, in Decree of Council of Ministers No 136/2004 (State Gazette, 56, 2004), amended and supplemented in Decree of Council of Ministers No 223/2005: Official Gazette, 87, 2005.

The changes in the curriculum of FVMSZ could be continuously made when necessary. The procedure includes a proposal of the Academic Affairs Commission (AAC) that has a statute of advisory organ to the Dean's office. The changes are accepted by the Faculty council of FVMSZ and then, approved by the Academic Council of the Trakia University. If the changes in curriculum are outside the minimum course hours specified in the obligatory state requirements, the FVMSZ is required to make representations to the Government, coordinated with the National Veterinary Service, for alterations in state requirements.

Even minor changes in the curriculum should follow the described procedure. Not only the AAC, but also each department is entitled to initiate the introduction of such changes. This is done with demand from the department chair supported by a protocol from a department staff meeting. The request is initially discussed by the AAC that could approve it or not, and then the proposal is presented to the Faculty Council. At the FC meeting, each member of AAC can express their opinion. The decision is taken with an ordinary majority of votes. The procedure is rather complicated and in general the decisions about changes in the curriculum are took with consensus-based approach in AAC and the Faculty Council.

The syllabuses of courses are developed by course's instructors and are accepted at a department meeting. The AAC approves the syllabuses, monitors for repetitions among various courses' content as well as between the theoretical and practical training within a course, surveys whether the content of a given course is compatible with the requirements of the curriculum. When needed, peer-review of a given syllabus is carried out, and then follows approval by the Faculty Council. The procedure is the same as for making changes in the curriculum.

The distribution of hours among courses as well as within a course is taken by the Faculty Council. The minimum number of hours for an independent subject is 15 hours. There is no upper limit, i.e. maximum number of hours. The number of hours for each course is determined depending on the thematic units of the syllabus. This was realized with the assistance of multidisciplinary teams associated to AAC. Each multidisciplinary team consists of instructors of the respective course and from other departments with similar syllabuses. As a result from discussions, the syllabus and the horarium are either accepted or revised. In some instances, the work of these teams resulted in reduction of the number of hours, and occasionally, in their increase.

The distribution of hours within a course into theoretical and practical also occurs according to the syllabus. As a rule, theoretical training hours are less or equal to those of practical training. For single courses, theoretical training is more as compared to practical one due to the specifics of their content.

In order to have an integral curriculum, the input-output relations of courses should be observed. All courses should be taught in a strict order, beginning with fundamental courses

and ending with clinical subjects that determine the skills of the future graduate. This order is determined on the basis of past experience and is discussed by the members of the AAC, then is approved by the Faculty Council. Of course, some changes could occur due to the aim of most instructors to teach their courses in late years of study, The present curriculum is compatible with European requirements and the subjects, that are not listed in Directive 36, are very few (Table 4.4).

4. 1. 1. POWER OF SUBJECTS AND TYPES OF TRAINING

4. 1. 1. 1. POWER OF SUBJECTS

The core subjects taken by every student are listed in Table 4.2. As shown, the curriculum includes all basic subjects and basic sciences, in most cases as independent courses.

Things with clinical subjects are different. For instance, animal pathology is divided into 3 parts: general pathology – Part I; general pathology – Part II (pathomorphology) and clinical pathology.

The courses in obstetrics, surgery, internal diseases, parasitology, infectious diseases consist in general part and special parts dealing with diseases in various animal species – productive animals, companion animals, equids.

The general part of surgery consists in three courses: general surgery, operative surgery, anaesthesiology and critical care medicine.

Propaedeutics is taught in three courses with various hours – internal diseases, surgery, obstetrics.

Elective courses are shown in Table 4.3. Each student is obliged to take at least one elective course per semester and once selected, this course becomes obligatory. For the entire period of studies, each student takes at least 10 elective courses.

The obligatory extramural training is performed over 3 years and is beyond semestrial weeks. Extramural training is presented in Table 4.5.

4. 1. 2. UNDERGRADUATE CURRICULUM FOLLOWED BY ALL STUDENTS

4. 1. 2. 1. CURRICULUM HOURS

Courses and respective hours according to Directive 2005/36 are shown in Table 4.2.

Table 4.1. General table of curriculum hours taken by all students

Year	Hours of training							Other (G)	Total
	Theoretical training		Supervised practical training						
	Lectures (A)	Seminars (B)	Self-directed Learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical Work (F)			
First	285	20	119	243	68		30	765	
Second	390	38	71	207	104			810	
Third	330	76	32	102	40	95		675	
Fourth	335	65	16	82	41	146		685	
Fifth	335	81		90	92	220		818	
Sixth	-								
Total	1675	280	238	724	345	461	30	3753	

Table 4.2. Curriculum hours in EU-listed subjects taken by each student

Subject	Theoretical training		Supervised practical training				Other (G)	Total
	Lectures (A)	Seminars (B)	Self-directed Learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical Work (F)		
1. Basic Subjects								
a) Physics	30	4	2	24				60
b) Chemistry	30	2		28				60
c) Animal biology	15			30				45
d) Plant biology	15			15				30
e) Biomathematics	15			15				30
<i>1- Total number of hours</i>	105	6	2	112				225
2. Basic Sciences								
a) Anatomy (incl. histology and embryology)	180	11	94	90	60			435
b) Physiology	60		30	30	30			150
c) Biochemistry, cellular and molecular biology	60			30				90
d) Genetics (including molecular genetics)	30		13	26	6			75
e) Pharmacology and pharmacy	60	75		15				150
f) Toxicology (including environmental pollution)	30	10	16	4				60
g) Microbiology (including virology, bacteriology and mycology)	90	3		87				180
h) Immunology	30		1	14				45
i) Epidemiology (including scientific and technical information and documentation methods)	20	14			6			40
j) Professional ethics	15							15
<i>2- Total number of hours</i>	575	113	154	296	102			1240

Table 4.2. Curriculum hours in EU-listed subjects taken by each student

Subject	Theoretical training		Supervised practical training				Other (G)	Total
	Lectures (A)	Seminars (B)	Self-directed Learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical Work (F)		
3. Clinical Sciences								
a) obstetrics	15	1				14		30
b) pathology (including pathological anatomy)	120	4		56	60			240
c) parasitology	10			15				25
d) clinical medicine and a surgery (including anaesthetics)	75					45		120
e) clinical lectures on various domestic animal, poultry and other animal species including	290	56		82		187		615
f) Field veterinary medicine (ambulatory clinics)						74		74
g) preventive medicine	10					10		20
h) Diagnostic imaging (including radiology)	20				20			40
i) Reproduction and reproductive disorders	45			11		34		90
j) Veterinary state medicine and public health	15			4				19
k) Veterinary legislation and forensic medicine	15	20					4	35
l) Therapeutics	45					60		105
m) Propaedeutics (including laboratory diagnostic methods)	60			4		56		120
<i>3- Total number of hours</i>	720	55		198	60	500		1533
4. Animal Production								
a) Animal production	15							15
b) Animal nutrition	25	2	16	10				53
c) Agronomy	5			2				7
d) Rural economics	15	15						30
e) Animal husbandry	45		13		32			90
f) Veterinary hygiene	22	9	3	12	9			55
g) Animal ethology and protection	23	9			3			35
<i>4- Total number of hours</i>	150	35	32	24	44			285
5. Food Hygiene/ Public Health								
a) Inspection, and control of animal foodstuffs or foodstuffs of animal origin and the respective feedstuff production unit	30				39			69
b) Food hygiene and technology	45			31	20			96
c) Food science including legislation	15			12				27
d) Practical work (including practical work in places where slaughtering and processing of foodstuffs takes place)					33			33
<i>5- Total number of hours</i>	90			43	92			225
6. Professional Knowledge								
a) Practice management								
b) Veterinary certification and report writing		2						2
c) Career planning and opportunities		4						4
<i>6- Total number of hours</i>		6						6

Table 4.3. Curriculum hours in EU-listed subjects offered and to be taken as electives

Subject	Theoretical training		Supervised practical training				Other (G)	Total
	Lectures (A)	Seminars (B)	Self-directed Learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical Work (F)		
Basic Subjects								
Informatics				15				15
Scientific information	15							15
Taxidermic techniques	3			12				15
Organization of experiments	3			12				15
General economic theory	15							15
Foreign language				60				60
Basic Sciences								
Cynology	9			6				15
Endocrinology	9			6				15
Nuclear diagnostics	7			8				15
Clinical microbiology	9			6				15
Imaging anatomy		5		10				15
Clinical sciences								
Physiotherapy	7			8				15
Biology and pathology of bees and silkworms	15			15				30
Clinical biochemistry	7			8				15
Fish pathology	15			15				30
Biology and pathology of laboratory animals	7			8				15
Dermatology	11			4				15
Tropical diseases	30							30
Veterinary dentistry	7			8				15
Veterinary neurology	11			4				15
Game pathology	15							15
Cardiology	9			6				15
Neonatal pathology	9			6				15
Ophthalmic surgery	7			8				15
Animal production								
Forage production	15							15
Veterinary sanitary expertise of forages	5			10				15
Food hygiene/Public health								
Professional knowledge								
History of veterinary medicine	15							15
Management of the private veterinary practice	15							15

Students must choose at least one elective course per semester, i.e. they have to obtain **150** hours from elective courses for the entire period of the studies.

Table 4. 4. Curriculum hours in subjects not listed in Table 4.2 to be taken by each student, including Diploma work (final graduation thesis, or final graduation work).

Subject	Theoretical training		Supervised practical training				Other (G)	Total
	Lectures (A)	Seminars (B)	Self-directed Learning (C)	Laboratory and desk based work (D)	Non-clinical animal work (E)	Clinical Work (F)		
Latin			20	25				45
Foreign language (English, French, German)			30	30				60
Physical education							30	30
Ecology and radioecology	30			15				45
Dietetics	15			15				30

The tables above evidence that the total number of curriculum hours for each student is 3753 hours (Table 4.1.), the elective courses are 150 hours (Table 4.3) and extramural training are 680 hours (Table 4.5.).

Thus, every student is trained within the framework of **4623** hours.

4. 1. 3. FURTHER INFORMATION ON THE CURRICULUM

At the beginning of the academic year, a student orientation programme takes place. One instructor is assigned to each course as responsible person. He/she is in permanent contact with students and guides them through the curriculum their rights and obligations, examination sessions, absence from courses etc.

In the first day of the academic year, the newly admitted first-year students are acquainted with the dean and the officers working in the dean's office, as well as with instructors of courses that are taught during the first year. Students are also acquainted with their rights and duties and with primary issues regarding the curriculum. Each student is given the Rulebook for Academic Affairs, that is common for the entire university.

The Rulebook of the Faculty states that the attendance of all courses is mandatory. This is observed very strictly for practical training sessions and nonattendance is allowed only on very important reasons (illness, family problems, pregnancy etc.). The classes that a student fails to attend are taken later and that way, the minimum attendance rate of the respective semester is certified by the instructor. Attendance tracking records of practical training sessions are kept.

The attendance rate for theoretical training (lectures) is determined by each department. Usually, students are required to attend at least half of all lectures. The number of attendance checks is determined by the instructor.

Up to the beginning of the clinical training, students are familiar with the methods of diagnostics and treatment from the courses of propaedeutics with clinical laboratory practice, anaesthesiology, operative surgery, obstetrics and gynaecology- general part, internal diseases – general part etc. That way, they are able to participate actively in the admission and examination of animal patients in the faculty clinics as well as during visits in farms and thus, to strengthen their skills.

All students are included in the clinical training performed during the 9th and the 10th semester (4th year of studies). Rotations are organized per study groups, each consisting of ten students. The training in small animal medicine (Obstetrics and gynaecology, surgery, and internal diseases modules) is carried out in the small animal clinic for 15 weeks. Two groups of students (20 students) are on duty in the clinic for two weeks in the morning and one group – in the afternoon. This way, each student works in the clinic for 60 hours per semester under the supervision of instructors on duty. At the same time, another two groups (and 3 groups of 20 students in each two days a week) visit farms each day in the morning for 6 weeks – this makes 120 hours of training in productive animal medicine under the supervision of instructors from the Department of Obstetrics, Reproduction and Reproductive Disorders and the Department of Internal Non-infectious Diseases. During the 10th semester, practical training in equine diseases is performed within 3 weeks with daily visits in the morning in horse breeding farms (60 hours).

During the holidays and weekends, 5th year students are on clinical duty according to a schedule (2 students per day) together with the instructor on duty, 8 hours per semester.

Mobile clinic and its mode of operation are presented in section **7.1.8.1**.

4. 1. 4. OBLIGATORY EXTRAMURAL WORK

I. Extramural practice after completion of the 6th semester (III year of studies)

Aim: Students are acquainted with issues related to animal feeding, dietetics, veterinary sanitary expertise of forages, zoohygiene, breeding and animal husbandry, the treatments of herds in cases of disease, prophylactic vaccinations. The farm-specific deficiency diseases, intoxications, and the approaches to their prevention and treatment are learned, as well as the measures of security, means of disinfections, quarantine of introduced animals etc. At this stage of the practical training, students aim at developing primary practical skills, expand their knowledge learned from preclinical courses, propaedeutics, general surgery etc.

Placement: The practice takes place in animal farms, experimental stations, agricultural cooperation, private animal farms.

Duration: 3 weeks, 15 days, 120 hours.

Control and supervision of extramural practice: They are performed by the veterinary surgeon that is in service to the respective farm or the farm manager.

Defense of the practice: It takes place during the enrolment for the next academic year after presentation of a journal, report for the activities performed during the training and a certificate bearing the signature and sealed by the supervisor (veterinary surgeon or farm manager). All these documents and a brief summary are evaluated by a commission appointed by the Dean, consisting of instructors from the Department of Animal Husbandry. After a positive evaluation, the preclinical extramural training is validated and the result “pass” is written down in the student book.

Students with negative evaluation of preclinical extramural practice are not allowed to progress in the subsequent semester.

Foreign students are allowed to pass half of the time of their practice abroad after being invited from some faculty. FVMSZ does not support financially such placements.

II. Extramural practice after completion of the 8th semester (IV year of studies)

Aim: The aim of this practice is to expand and strengthen the practical skills of students after completion of some clinical courses up to the end of the 8th semester.

Placement: veterinary clinics and /or regional veterinary centres. During the first day of the practice, students are introduced in the regional veterinary service (RVS) and state the sites where their practice should take place. At the end of the training period, they present the documents (notes, agendas) on the basis of which, official certificates of attendance are issued by the RVS.

Duration: 4 weeks, 20 days, 160 hours.

Needed documents:

- **Journal:** it described the activities performed – diagnostics and treatment of patients, visits to farms or other objects in a way similar to that of ambulatory patient records.
- **Certificate of attendance:** a brief text stating the duration of the extramural training and the level of student's performance. The document is signed by the Director and bears the seal of the respective RVS.

Defence and validation of the practice: It is done after discussion between the student and a commission appointed by the Dean that examines the presented documents and asks questions to the student. The commission consists of two instructors (assistant professors) from the clinical departments. The evaluation is pass/fail. Students with negative (fail) evaluation are not allowed to progress in the subsequent semester.

III. Pregraduation internship – after completion of the 10th semester (V year of studies)

Aim: The professional internship aims at strengthening of practical skills of future veterinarians after passing all clinical and practical courses and the extramural studies. It provides a gradual transition to the future professional activities, contributes to the communication skills with other colleagues, animal owners, farmers, workers in food-processing enterprises.

Duration and placement: According to obligatory state requirements, the duration of the pregraduation internship in veterinary medicine is 12 weeks, 60 days, 480 hours. The internship requires three different placements:

The first (4 weeks) is in a RVS, The first 10 working days students are recommended to visit the sites subject to veterinary sanitary control. The next 10 working days the practical training continues in regional or local centres, in support of the regional veterinarians.

The second part (4 weeks) of pregraduation internship should take place in a private veterinary clinic.

The third part of 4 weeks is carried out in a licensed veterinary service or animal farm.

During the second and third part of the internship, foreign students are allowed to return to their native countries and the programme of the internship should be strictly followed. Upon their return they present a certificate for the time spent in a veterinary clinic. FVMSZ does not have any financial obligations in such cases.

Needed documents:

- Written report for the internship: It should contain a self-made analysis of the state and problems of veterinary services in the respective region, according to the programme of the internship. The report must show the creativity, personal attitude of the student and his willingness to work independently.

The report should contain no more than 15-25 standard pages. The inclusion of schemas, graphs and all elements of critical analysis are encouraged and result in higher total grade of student's performance.

- Journal: it described the daily activities performed related to diagnostics and treatment of patients, visits to farms or other objects in a way similar to that of ambulatory patient records.
- Certificate of attendance: it states the duration of the extramural training and the level of student's performance. The document is signed by the Director and bears the seal of the respective RVS.

The reports of all students that have carried out their internship in the same RVS are assessed by the same commission with regard to the better control and objective evaluation of the individual work of the student.

The validation and grading of the internship is done after discussion between the student and a commission appointed by the Dean that examines the presented documents and asks questions to the student. The commission consists of a chairman (professor or associate professor) and five habilitated or non-habilitated instructors.

The evaluation is pass/fail. Students with negative (fail) evaluation are not allowed to progress in the subsequent semester.

The evaluation of the internship could be as follows: **pass, conditional pass, fail**.

The reports and training agendas are presented and referred to by state examination commissions and could have an impact upon the final grade of the state examination.

The pregraduation internship is given an evaluation "conditional pass" or "fail" in case of:

1. Lack of official certificate of student's attendance signed and sealed by the Director of the RVS.
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.

Repetition of the internship: When a "conditional pass" or "fail" evaluation of student's performance during the internship 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 internship is defended once again.

Table 4.5. Obligatory extramural work that student must undertake as part of their course

Nature of work	Minimum period		Maximum period		Year in which work is carried out
	hours	% total study time	hours	% of total study time	
Preclinical extramural practice (animal husbandry)	40	0.9%	40	0.9%	3 rd
Clinical extramural practice	160	3.5%	160	3.5%	4 th
Pregraduation internship	480	10.3%	480	10.3%	5 th

4. 1. 5. SPECIFIC INFORMATION ON THE PRACTICAL TRAINING IN FOOD HYGIENE/PUBLIC HEALTH

The training of students in food hygiene and safety 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 produced pasteurized 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 courses (Table 4.2.). 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 syllabus of the course 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 training within 16 weeks (the same number are 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 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 aspects of poultry slaughtering technology are taught in the Gradus poultry slaughterhouse situated in Stara Zagora. This is 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.

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 pasteurized milk and yoghurt. 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.

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.

4. 1. 6. RATIOS

4. 1. 6. 1. GENERAL INDICATORS TYPES OF TRAINING

Figure	Total number of teaching hours
A	1675
B	280
C	238
D	724
E	345
F	461
G	30

$$\begin{array}{l}
 \text{Theoretical training} \\
 \text{(A+B+C)} \\
 \text{R 6: } \frac{\text{-----}}{\text{Supervised practical training}} = \frac{2637}{1530} = 1 : 0.58 \\
 \text{(D+E+F)}
 \end{array}$$

Clinical Work
(F)

$$\text{R 7: } \frac{\text{Laboratory and desk based work} + \text{non-clinical animal work (D +E)}}{\text{Clinical Work (F)}} = \frac{461}{1069} = 1 : 2.31$$

Self directed learning
(C)

$$\text{R 8: } \frac{\text{Teaching load (A+B+C+D+E+F+G)}}{\text{Self directed learning (C)}} = \frac{238}{3753} = 1 : 15.7$$

4.1.6.2. SPECIAL INDICATORS OF TRAINING IN FOOD HYGIENE/ PUBLIC HEALTH

Total no. curriculum-hours
Food Hygiene / Public Health

$$\text{R 9: } \frac{\text{Total no. curriculum-hours Food Hygiene / Public Health}}{\text{Total no. hours vet. Curriculum}} = \frac{225}{4623} = 1 : 20.5$$

Hours obligatory extramural work
in Veterinary inspection

$$\text{R 10: } \frac{\text{Hours obligatory extramural work in Veterinary inspection}}{\text{Total no. curriculum hours Food Hygiene / Public Health}} = \frac{225}{80} = 1 : 0.35$$

4. 2. COMMENTS

The curriculum of the FVMSZ is undergoing an adjustment. The last changes are from 2004. The five years since then have shown that although it is generally compatible with the requirements of Directive 36/2005, there are still several issues to be improved.

The primary feature of the curriculum, consequent to the normative regulations, is that all students are training according to a uniform curriculum. At the same time, we have to think about some differentiation, for instance, with regard to the future employment of graduates. The specific training, for example in the field of food safety, is done as postgraduate training.

In the future, the clinical training system should be revised so that during the 9th and the 10th semester to provide students with more free time to spend in the clinics.

The system of examination for some courses that is now very fragmented and is not adequate, should be revised too.

The number of self directed learning hours should be increased by increasing the number of courses where such training is applied.

The courses in Fish biology and pathology and Bee biology and pathology should be probably core subjects because of the specifics and the obligations of the veterinary professions with regard to these animal species.

Taking consideration of the specific geographical location of the country, a special attention is paid on training in infectious and tropical diseases.

4. 3. SUGGESTIONS

In the future, the reduction of the share of theoretical training and respective increase in that of practical training should be encouraged. Clinical training should be increased as well.

The number of elective courses should be increased to allow students to choose between more than two electives per semester.

CHAPTER 5. TEACHING AND LEARNING: QUALITY AND EVALUATION

5. 1. FACTUAL INFORMATION

5. 1. 1. THE TEACHING PROGRAMME

Coordination between the syllabuses of the different subjects, as well as between the departments, sections and service units, is carried out by the Academic Affairs Commission (AAC), which includes 7 members approved by the Faculty Council, upon proposal of the Dean. The AAC includes professors and associate professors teaching courses from different groups (fundamental, clinical, non-clinical), and students. The commission's work is directed by the vice-dean of academic affairs. The decisions taken by the commission are recommendatory and advisory and are approved by the Faculty Council. The AAC's primary tasks are limited to corrections in the number of lectures and practice sessions for a given course, the specifics of the syllabus (thematic units), the relations with other courses taught, the degree to which the course content is repeated, etc.

The coordination of the material taught in the different courses begins with the system for curriculum improvement. Each course has a responsible person chosen by the Faculty Council, who is a habilitated instructor. The responsible person, together with the other discipline's instructors, prepares and presents a study programme. It is discussed by the commission, and, if necessary, peer reviews are presented by independent reviewers; afterwards the curriculum is approved by the Faculty Council. At this level, the coordination of the curriculum between the different departments, clinics, and other subdivisions is taken into consideration. Sometimes it is necessary to consider the teaching of other disciplines – this happens every semester, when the official list of courses is prepared.

Practice sessions, related to visits in farms, factories or other institutions, are organized by the respective department responsible officials and are coordinated with the vice-dean of clinical activities.

To ensure the primary teaching skills of young instructors, the Faculty arranges a one-month course in paedagogy, during which they are familiarized with the basic methods of instruction as a discipline and the application of various education methods. Additionally, each department offers young instructors a preliminary audition of a methodical unit before teaching.

Problem-based education is applied within separate disciplines, but it is not yet a teaching method unifying different approaches to a certain problem.

In some disciplines, an interactive method of computer education is applied, as well as taking tests.

For some disciplines, there is a problem with the textbooks on veterinary medicine. The larger part of courses provides the necessary textbooks, even though there weren't many of them published in recent years, requiring that students also use their own notes from lectures and practice sessions.

Veterinary medicine education is related to work outside the university – at farms, veterinary clinics, state veterinary services, animal product industries, etc.

To this end, the Faculty keeps in touch with National Veterinary Service, which, above all, grants permission for visiting most sites. The students' schedule is coordinated with the NVS,

and on this basis the Faculty takes the responsibility of providing instructors to accompany the students, to ensure they have the proper clothing and take all personal precautionary measures.

The relations between the FVMSZ and the abovementioned entities are based on bilaterally signed contracts. These contracts describe, in detail, the obligations of both sides, as well as the number of students to be taught. For the NVS and regional veterinary services, the active engagement in the education process is mandatory; having in mind the NVS and its subdivisions are the primary employers of veterinary medicine graduates.

A part of the signed contracts is related to the education of all students (during semesters), while another part (e.g. with private veterinary practitioners) is related to the training of a certain number of students (primarily concerned with summer internships and practice periods).

Extramural education is planned to take place during internships and practice periods included in the curriculum. They are carried out at farms, animal products industrial facilities, state veterinary services, and private veterinary clinics.

The main goal of the curriculum in the veterinary medicine major is to provide a high-quality training in the complex system of sciences related to the veterinary medical profession. This includes knowledge in general education subjects such as chemistry, physics, and botany, primary disciplines such as anatomy, cytology, microbiology, etc. An important part of education are the subjects related to animal production, such as feeding, breeding and hygiene, clinical disciplines, and subjects related to food products safety.

The primary form of tuition is group sessions, through the formation of study courses and study groups.

Each student must possess certain knowledge in these discipline groups, which is ascertained in its entirety by state exams, required for every student to graduate.

The “day-one skills” system, widely used throughout European faculties in recent years, has been used at the FVMSZ for about 20 years. Currently, it is being modernized, especially in the part about determining the way that the possession of certain skills can be proved during the education process. In short – this is achieved by recording every skill acquired during internships and practice periods in each student’s individual journal, each record certified with the instructor’s signature. The final review of the journal and demonstration of the acquired skills is presented before a commission of three assistant professors after the end of the state internship and right before the state exams.

5. 1. 2. THE TEACHING ENVIRONMENT

The development of teaching skills is a very important means of improving education at the Faculty. As mentioned above, at the beginning of their career, each young instructor has to pass a course in paedagogy, to improve their didactic skills. This course, however, is not related to the discipline they would teach. In this respect, young instructors learn from their older colleagues by listening through the entire course before embarking on teaching on their own. The FVMSZ rulebook requires that department staff members periodically attend lectures and discuss them at department meetings, in search of a higher level of quality.

Each year, a survey of student opinions about the quality of education is performed, and every instructor sees their results. Students elect a “best instructor.”

Unfortunately, the current system of academic advancement is much more focused on the scientific achievements of instructors rather than on achieving a higher level of education

quality. In this respect, awards are given for the best research work, outstanding young scholar, but not for best young instructor. This is a reflection of the way university professors advance, as per the Academic Degrees and Academic Ranks Act. The latter is based primarily on science-metric indicators and much less on teaching activities.

The FVMSZ's current facilities are sufficient for a quality education. Instructors' working conditions are above satisfactory. Each instructor has their own office, a personal computer, and internet connection. Lecture halls are outfitted with modern stationary multimedia equipment, and each department also has mobile multimedia projectors.

5. 1. 3. THE EXAMINATION SYSTEM

The way of performing exams at the Faculty is based upon the Bulgarian Higher Education Act, which is mandatory for all higher education establishments in the country. It lays down the primary principles that a legitimate examination system should adhere to. Based on these requirements, the FVMSZ rulebook includes a description of the way semester and state exams are performed.

Both current and final control is exercised on the preparation and acquisition of knowledge.

The forms of current control are: discussions, tests, colloquia, and paper defense, performed regularly or periodically. Colloquia are time-coordinated among the department chairs.

The forms, schedule, and methods of current control are written down in the course syllabus and are announced at the start of the semester.

Current control is performed within the time limit set by the study schedule for practical or theoretical study activities. It is not acceptable to perform any form of current control 2 weeks before the semester's end, with the exception of disciplines that have "in-progress" final grade.

Final control is performed through either theoretical and practical exams (or quizzes) or theoretical exam only, in accordance with approved course syllabus. This happens during examination sessions, as determined in the academic calendar, or at the end of a module in the specific subject.

Students' knowledge and skills are graded on a 6-grade scale, which is structured as follows: excellent (6); very good (5); good (4); sufficient (3) and poor/fail (2). The corresponding grades by the ECTS scale are: excellent – A; very good – B; good – C; sufficient – D or E, poor/fail – FX or F.

The final grade is formed on the basis of all current control grades. The relative share of these grades in the final one is determined by the instructor.

The grading of practical skills and theoretical knowledge of students is done by professors or associate professors. Practical exam sessions are also performed by assistant professors.

The examination is considered as successfully passed provided that the final grade is not lower than sufficient (3.00). Only final grades and obtained credits are written down in student books. Assistant professors are not allowed to form and write down final grades, unless authorized by the Faculty Council to do so.

The students are allowed to take exams within the framework of examination sessions if they have met the mandatory attendance rate of all courses taught during the semester. The certification of this condition is done by the Dean's office if all courses taught during the semester have the official recognition, i.e. the signature of the respective instructor. The instructors responsible for the theoretical and practical training sign the student book only if

all practical sessions have been attended and a minimum number of lectures (announced by each instructor at the beginning of the semester) have been visited by the student.

The examination sessions are scheduled in the academic calendar. The academic year has two semesters: winter and summer (see the included academic calendar). After each 15-week semester, a 4-week final examination session takes place followed by 1-week resit examination session. This way, two regular examination sessions are scheduled for each academic year (in January and June) as well as two resit sessions – in February and July. Students that have not passed some of the final exams, are allowed to do so after the summer holidays and summer internships and practical training during the so-called second (ultimate) resit examination session that is carried out in September.

The performance of exams is stated in the Higher Education Act, according to which the major form of assessing knowledge at higher schools is the written examination. It is performed for a definite time period in the lecture halls of the respective department and is verified by instructors. In some courses, the written examination is followed by a short discussion on examination subjects. The test or quiz as a form of final examination is also acceptable, especially for elective courses.

The specifics of veterinary medicine training requires a number of practical skills that are demonstrated during the practical examination, when students are required to work with an animal patient or other material, to perform some physical examination and to show a certain result.

For some courses, only a “in-progress” grade is obtained during the semester.

External examiners are usually admitted only during state exams, primarily state officials employed by the National Veterinary Service.

The question with examination retake is settled down in the regulations of each individual education establishments. In the FVMSZ, 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, are dismissed because of poor performance.

5th year students are admitted to state practice with no more than 2 past due exams up to end of the second resit examination session. Stagiaires with past due exams after the September resit 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 performed.

Students suspended because of poor performance, could take the examinations during the regular examination session of the semester, during which the respective course is taught. In case that they cannot succeed to pass successfully the failed examinations within one academic year, they are dismissed from the university with an order of the Rector, issued no later than 1 month after the last date of the second resit examination session.

Students have to pass an examination before they can start other courses in cases that courses are interrelated.

5. 1. 4. EVALUATION OF TEACHING AND LEARNING

The system for evaluation the quality of teaching includes three components: quality at the entrance of FVMSZ (selection of prospective students), quality during the training and quality at the exit, that is performed by the users of graduates.

The evaluation of teaching quality is a common procedure executed at the university level, managed and performed by the Department of teaching quality and academic staff evaluation. The rules of this procedure are regulated by the Manual of teaching quality evaluation, approved by the Academic Council of the Trakia University. At the faculty level, teaching quality activities are carried out by a manager on teaching quality, directly subordinated to the Rector of the University.

Furthermore, the evaluation process includes another two main components – student evaluation of teaching and teachers, and assessment of academic staff performance.

Student evaluation of teaching is performed through anonymous questionnaires (developed by sociologists and teachers) and a score evaluation system. The survey is organized and performed by representatives of the Student Council. Student evaluation of teaching is taken into consideration in the final score conferred to each academic staff member.

According to the Higher Education Act, and the Rulebook for Academic Staff Assessment at the Trakia University, Stara Zagora, professors and associate professors are evaluated once in 5 years, and lower-rank academic staff members – once in 3 years. For the latter, the positive assessment of performance is a necessary prerequisite for advancement in rank. Persons with two negative assessment reports are dismissed. Professors and associate professors are promoted in rank according to the procedure regulated by the Academic Degrees and Academic Ranks Act. The assessment of teacher's performance includes a self-evaluation (filling an evaluation form) and external evaluation from the Committee on Assessment of Staff Performance, consisting of a chairman and 4 members. The individual scores of teachers and the analysis of results are approved by the Faculty Council, and each teacher receives a copy of assessment results.

It should be pointed out that the teaching quality evaluation system was paid a particular attention during the institutional accreditation of the Trakia University and the program accreditation of the veterinary medicine specialty. The accreditation procedures are supervised by the National Evaluation and Accreditation Agency whose expert groups and external experts make an external audit of the institution. In fact, the procedure is almost equal to that performed by EAEVE.

The aim of the evaluation process is to provide a real-time objective assessment of the education establishment, to propose specific measures to solve some negative events and to determine deadlines for their execution. Corrective actions are undertaken by the Faculty Council that prepares a problem-solving schedule and appoints the persons responsible for its implementation.

The recommendations obtained after the end of evaluations organized by the National Evaluation and Accreditation Agency are subject to a continuous supervision and control and are listed in the Report of post-accreditation monitoring and control, that is lodged in the National Evaluation and Accreditation Agency 3 years after evaluation results are obtained.

5. 1. 5. STUDENT WELFARE

Protecting students from zoonoses and physical threats is a primary concern for the Faculty authorities. The main efforts in this connection are the instructions held by the teaching staff in the beginning of training that could be a potential hazard to human health

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 cadavres, a 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

According to the Bulgarian legislation the health insurance costs of all students are paid by the University.

The students in FVMSZ are eligible to use residence halls and canteens at preferential prices. Financial support is available for students with financial need and for those with excellent academic performance. The services of the library, the sport halls, stadiums and swimming pools are free of charge.

During the studies, some categories of students are eligible to preferences, namely the pregnant students, mothers, students with chronic illnesses. All they are described in detail in the Academic Affairs Regulations of the Trakia University.

The university career centre is working to assist in the career development and the professional realization of graduates. As a tradition, the Director of the National Veterinary Service offers job positions to the first two graduates with highest academic merit during the commencement ceremony. Companies and enterprises are also offering employment to your young graduates. The list of the latest class of graduates, ranged according their grades, is published in the specialized editions "Veterinarna Sbirka", "Veterinary Medical News".

The students with social problems and those with disabilities are subject of protection according to FVMSZ rules. They are partially or totally exempt from paying tuition fees. Upon a justified request, they are allowed to participate in courses in accordance with an individual timetable and to take examinations out of examination session periods (in case of illness, pregnancy etc.)

5. 2. COMMENTS

The syllabuses of courses taught at the FVMSZ are periodically updated by instructors. When substantial changes in the curriculum are needed, new syllabuses are prepared and they are peer-reviewed by specialists in the respective field. The level of tuition is good for most courses, and they include the most recent scientific achievements. In some cases, students are unnecessarily overburdened with the newest developments in the field, and the instructors'

aim of always presenting the latest information leads to relatively poor examination performance.

Another serious problem that we are facing, is the repetition of content. The same material is taught in various courses, both in obligatory and elective ones.

5. 3. SUGGESTIONS

Revision of courses' syllabuses in order to counteract the existing tendency to overtraining in some courses.

Some of courses that are currently elective (Bee biology and pathology, Fish biology and Pathology, Veterinary Dentistry, Ophthalmology) should become obligatory.

New elective course should be introduced.

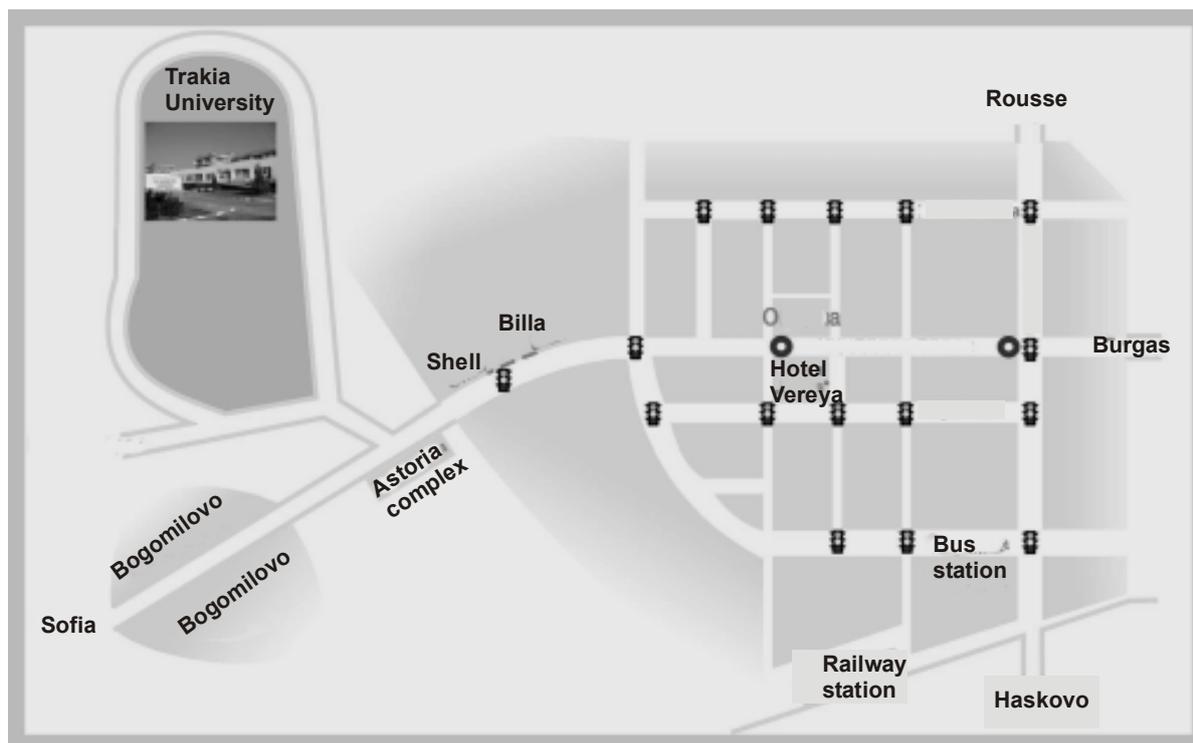
In order to avoid repetitions and to ensure the proper sequence of courses, all syllabuses must be initially approved by the Academic Affairs Commission, that, when necessary, could include external specialists in the respective field.

CHAPTER 6. FACILITIES AND EQUIPMENT

6.1. FACTUAL INFORMATION

6.1.1. PREMISES IN GENERAL

The FVMSZ is situated in the Student Campus of the Trakia University, 6 km west to Stara Zagora. The faculty occupies buildings No. 3, 4, 5, 6, and 7 of the main university premise and the clinical diagnostic unit. Each unit has 5 floors.



The sections of Chemistry, General animal husbandry and Animal nutrition, dietetics and veterinary sanitary expertise of feeds” are situated in buildings 3 and 4 on the 2nd floor.

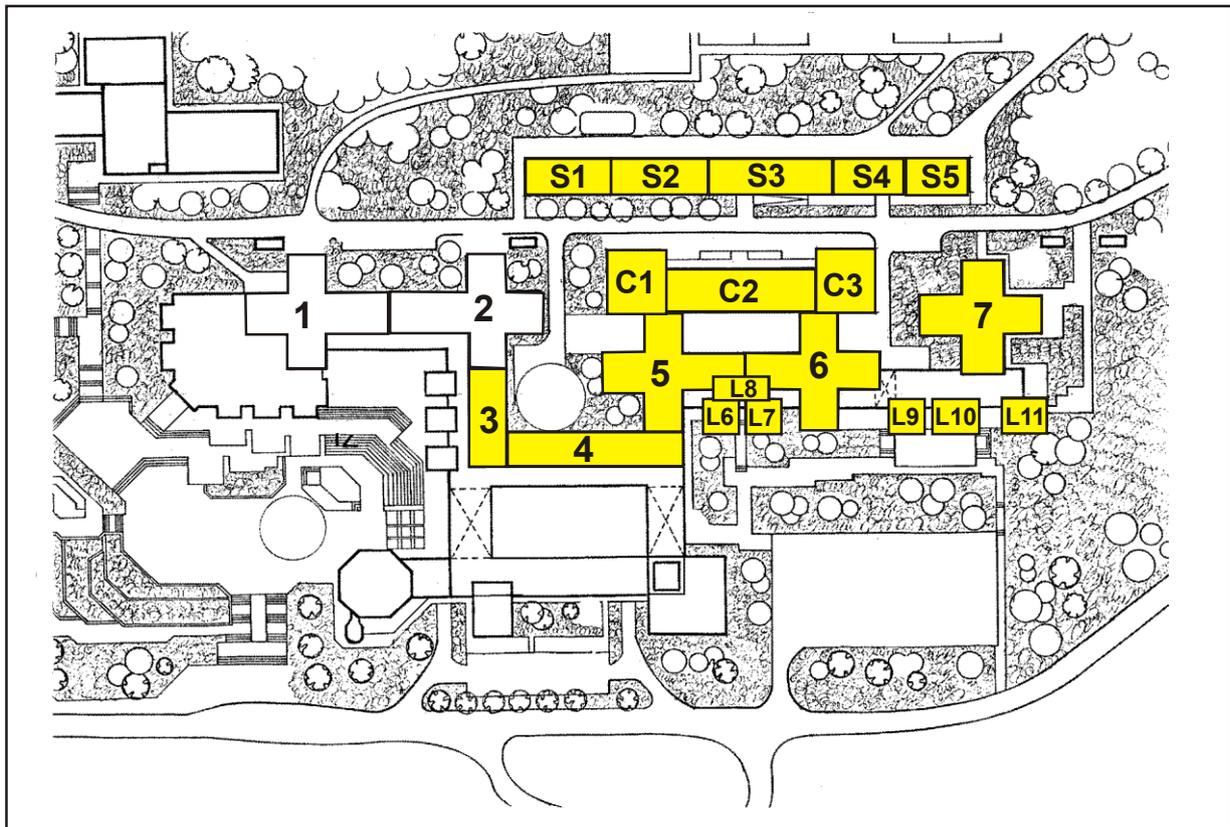
On the 5th floor of building 5 are the sections of Veterinary Hygiene, Ecology and Radiobiology and the Dean’s Office.

On the 2nd floor of building 6 are the lecture halls № 6, 7, 9, 10 and 11, and hall № 8 for practical training in histology, cytology and embryology and in General and clinical pathology, as well as the section of Veterinary Anatomy.

On the 3rd floor are the departments of Obstetrics, Reproduction and Reproductive Disorders, Veterinary Surgery, Internal Non-infectious Diseases. The departments of Pharmacology, Animal Physiology and Chemistry are on floors 4 and 6. On the 5th floor are the section of histology, cytology and embryology, the electron microscopy laboratory and the section of veterinary legislation and management.

In Building 7 are located: the section of Clinical pathology and autopsy hall (first floor), the section of Parasitology and the section of Animal Food Hygiene and Control (2nd floor), the section of Parasitology (3rd floor), the section of Epidemiology and Infectious Diseases (4th

floor), the section of Veterinary Microbiology and Virology (5th floor) and the section of General Pathology and Immunology (6th floor).



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–S5 – animal stationeries.

6. 1. 2. PREMISES USED FOR CLINICS AND HOSPITALIZATION

The clinical diagnostic unit (CDU) consists of: Laboratory Diagnostic Centre (with 10 laboratories), Small Animal Clinic, Productive Animal Clinic, Equine clinic, halls for practical training and consultations (on the first floor), halls for practical training in veterinary anatomy, ophthalmology, dentistry, physiotherapy and radiology (on the ground floor), facilities for practical training in parasitology and infectious diseases, isolation facilities for large and small animals. The clinical are connected with buildings 5 and 6.

The **Small Animal Clinic** consists of: clinical laboratory (see 6. 5. 1), registration, consultation room, emergency room, dentistry, endoscopy, ultrasound imaging, X-ray imaging, septic surgery, aseptic surgery, obstetric aseptic surgery, hospitalization ward.

The **Productive Animal Clinic** consists of: consultation room, septic surgery for small ruminants and swine, large animal surgery, demonstration room. The teaching hospital is divided into two parts: for diseased animals and for animals used for teaching purposes

The **Equine Clinic** includes: consultation room, septic surgery, aseptic surgery, teaching facility and equine teaching hospital.

Table 6.1. Places available for hospitalization and animals to be accommodated

	Species	No. places
Regular hospitalization	Cattle	12
	Horses	9
	Small ruminants	16
	Pigs	12
	Dogs	10
	Cats	8
	Others ¹	-
Isolation facilities	Farm animals and horses	2
	Small animals	8
	Others ¹	1

1) depending on the specific case

6. 1. 3. PREMISES FOR ANIMALS

The premises for animals are parts from the respective animal teaching hospitals: for small animals, for farm animals and for horses to the respective clinic. Each teaching hospital is divided into two sections: one for patients and another for animals used for teaching purposes. The latter are transported from the Experimental Farm of the Trakia University or farms, with which the FVMSZ has signed contracts for cooperation.

The Trakia University has an own experimental farm that is at service of the training in both the Faculty of Veterinary Medicine and the Faculty of Agriculture. The farm is outside town, at about 6 km from the Student's Campus. At this moment, it houses 105 cows, 35 sport horses, 100 pigs (sows and piglets), and 60 rabbits.

Other animal farms used for teaching purposes are: the cattle farm and the sheep farm of the Institute of Agriculture, the cattle farms in Zagore, Oryahovitsa, Maglizh, Gita, Svoboda, Kran, Sheynovo, Hadji Dimitriev; sheep farms in Rakitnitsa, Yavorovo, Sabrano etc. All they are located within 25 km from the Student's Campus.

The FVMSZ provides transportation of students to all sites outside the territory of the Student's Campus.

6. 1. 4. PREMISES USED FOR THEORETICAL, PRACTICAL AND SUPERVISED TEACHING

Table 6.2. Premises for clinical work and student training

Small animals	no. consulting rooms	3
	no. surgical suits	6
Equine and food animals	no. examination areas	2
	no. surgical suits	2
Other	-	-

Table 6.3. Premises for lecturing

Lecture halls and number of places					
Lecture hall*	1 (LH 6)	2 (LH 7)	3 (LH 9)	4 (LH 10)	5 (LH 11)
Places	180	144	144	144	62
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 multimedia equipment. LH 6 also has an audio connection with the university multimedia centre.

Table 6.4. Premises for group work (number of rooms that can be used for supervised group work)

Number of places in rooms for group work								
Hall No ground floor	TA – 1	TA – 2	S – 1	S – 2	S – 3	S – 4	ID – 5	ID – 6
Places	15	15	25	25	20	25	36	30
Comment	topographic anatomy		general and operative surgery		physiotherapy	ophthalmology	clinical toxicology	
Hall No ground floor	O-1							
Places	40							
Comment	artificial insemination							
Hall No 2 nd floor building 5	G – 2 222	AN – 1 228	A – 1 284	A – 2	A – 3	A – 4	A – 5	
Places	24	32	20	10	12	16	20	
Comment	genetics	animal nutrition	seminar hall anatomy	dissection rooms		seminar halls anatomy		
Hall No 2 nd floor building 6	FH-1	FH-2	FH-3					
Places	28	30	32					
Comment	food hygiene and control							
Hall No 3 rd floor building 5	G – 1 332	ID – 1	ID – 2	ID – 3	ID – 4	ID – 7	ID – 8	ID – 9
Places	24	28	24	18	18	30	20	20
Comment	animal genetics	internal non-infectious diseases		propaedeutics of internal diseases		game biology and pathology	seminar hall	

Number of places in rooms for group work								
Hall No 3 rd floor building 6	CL-1	CL-2						
Places	12	12						
Comment	computer labs							
Hall No 4 th floor building 6	VLM – 1	VLM – 2		PH-1 498-6	PH-2 498-5			
Places	28	24		24	16			
Comment	veterinary legislation and management			pharmacology				
Hall No 5 th floor building 6	AH-1 576	AH-2 578	B-3 598-11	B-4 598-13	C-3 598-14	C-1 598-17	C-2 598-19	
Places	16	16	18	20	10	14	14	
Comment	animal hygiene and radiobiology		biochemistry		cytology			
Hall No 6 th floor building 6	AP-5 692	AP-6 696						
Places	24	15						
Comment	animal physiology							
Hall No 2 nd floor building 7	PA-1	PA-2	PA-3	PA-4				
Places	15	24	14	24				
Comment	pathoanatomy			autopsy hall				
Hall No 3 rd floor building 7	P-1	P-2	P-3					
Places	24	24	40					
Comment	parasitology							
Hall No 4 th floor building 7	E-1 7-402	E-2 7 - 419	E-3 7 – 425	E-4 7 – 420	CL-3			
Places	18	24	18	45	10			
Comment	epidemiology and infectious diseases				computer lab			
Hall No 5 th floor building 7	MB-1	MB-2	MB-3	MB-4				
Places	16	24	16	12				
Comment	microbiology							
Hall No 6 th floor building 7	GP-1 23	GP-2 24	GP-3 17	GP-4 12				
Places	12	12	16	22				
Comment	immunology, general pathology							

Clinics								
<i>Equine Clinic</i>								
Hall No	EQ-1 398-2	EQ-2	EQ-3	EQ-4	EQ-5	EQ-6		
Places	24	5	27	4	12	4		
Comment	podology	farriery	reception	aseptic room	Septic room	manipulation room (stationary)		
<i>Small Animal Clinic</i>								
Hall No	SM-1	SM-2	SM-3	SM-4	SM-5	SM-6	SM-7	SM-8
Places	30	20	8	3	8	6	6	8
Comment	consultation room	aseptic room	emergency room	septic surgery	endoscopy	dentistry	obstetrics manipulation	obstetrics aseptic room
<i>Productive Animal Clinic</i>								
Hall No	PR-1	PR-2	PR-3	PR-4	PR-5	PR-6		
Places	39	26	22	10	2	4		
Comment	consultation room	aseptic room	obstetrics	aseptic room	consultation room	room for students on duty		

Table 6. 5. Premises for practical work (number of laboratories for practical work by students)

Number of places in laboratories								
Hall No 2 nd floor building 5	CH-1 250	CH-2 252						
Places	12	12						
Comment	chemistry							
Hall No 3 rd floor building 6	O-2 378	O-3 380	ID-10 384	ID-11 386	S-5 398-9	S-6 398-10	O-4 398-19	O-5 398-20
Places	18	18	2	20	5	5	2	4
Comment	artificial insemination		labs – internal diseases		labs - surgery		mammary gland pathology	<i>in vitro</i> fertilization
Hall No 3 rd floor building 6	O-6 398-17							
Places	4							
Comment	reproduction lab							
Hall No 2 nd floor building 7	P-6	P-7	P-8					
Places	4	4	4					
Comment	parasitology labs							

Number of places in laboratories								
Hall No 4 th floor building 7	MB-1	MB-2	MB-3	MB-4	MB-5			
Places	4	2	4	2	4			
Comment	bee patho- logy lab	cell cultu- res lab	virology lab	chick em- bryos lab	bacterio- logy lab			

The number of student places in specialized labs are limited. Students work there when they are part of research teams and under the supervision of laboratory technicians or instructors.

According to Bulgarian Health and Safety Law, there a standing committees on health and safety to the Trakia University, respectively to the FVMSZ. They include representatives of the employer, the labour safety manager and a representative of the Occupational Medicine Service. All recommendations made by the committee with regard to health preservation and safety measures are applicable not only to the academic and support staff members, but to students as well.

The instructors performing the respective clinical, practical or laboratory training, are directly responsible for the observance of these measures.

6. 1. 5. DIAGNOSTICS LABORATORIES AND CLINICAL SUPPORT SERVICES

- **Diagnostic laboratories**

The laboratory diagnostic centre, founded three years ago, is of national significance and is a part of the Clinical Diagnostic Unit. For now, the equipment allow the performance of haematological and biochemical analysis. The number of performed assays is continuously increasing. Out-faculty clients (cattle and sheep farms) are also seeking assistance from the laboratory. It also serves for training of students in Propaedeutics and Clinical Laboratory (3rd year of studies). 4th and 5th year students are also on duty there.

Specialized diagnostic laboratories exist in the various sections, that are also used for training of students and analysis of samples of external clients – laboratory of parasitology, epidemiology, microbiology, virology, food hygiene, mammary gland pathology.

- **Central clinical support services**

The FVMSZ has a diagnostic imaging unit that works for the three clinics. In the Small Animal Clinic there are specialized premises equipped for dentistry, endoscopy and ultrasonography. The Farm Animal Clinic and Equine Clinic utilize also echographic equipment, cardiograph and laparoscopic equipment for diagnostic purposes.

6. 1. 6. SLAUGHTERHOUSE FACILITIES

In the FVMSZ, there is not an own slaughterhouse. That is why the training of students in courses related to food hygiene and technology are carried out in external slaughterhouses, enumerated in 4. 1. 5.

6. 1. 7. FOODSTUFF PROCESSING UNIT

The FVMSZ has no own production base for processing animal foodstuffs. Thus, the training of students is carried out in external processing enterprises as specified in 4. 1. 5.

6. 1. 8. WASTE MANAGEMENT

In all units of the FVMSZ, a system for separate waste collection is organized.

Non-toxic wastes are collected in yellow bins and located at specific places in the premises.

Hazardous wastes are collected in polyethylene bags, placed in covered bins with pedals, marked in red and positioned at convenient places in the premises.

Wastes contaminated with biological material are disinfected with 3-5% Trison solution. Plastic bags are filled up to $\frac{3}{4}$ of their capacity, are tied very well and labeled "Hazardous waste" and with the name of the respective unit.

All sharp objects (needles, syringes, envelopes of vaccines, lancets, blades), laboratory glassware and surgical instruments are put into plastic container (waterproof and puncture-proof).

The organs and parts of organs from the surgery rooms of the clinics and from the pathoanatomy unit are collected in separate bags, labeled "Hazardous waste" after being treated with 5% Trison solution. In weekends, they are stored at -10°C in the section of pathoanatomy.

Wastes from microbiological laboratories are autoclaved and those from haematological and biochemical laboratories are disinfected with 5% Trison solution at a 1:2 ratio and exposure time 2 hours, and then are discharged in the sewerage system.

All wastes are disposed at specially designated disposal sites.

The transportation is done with the vehicles of the licensed company, with which the FVMSZ has signed a contract, and the vehicle of the incinerator in Shoumen.

In case of non-observance of rules for separate waste collection, labeling and disposal of wastes, the vice-dean of the FVMSZ should be immediately informed.

6. 1. 9. FUTURE CHANGES

The clinical lab should be further equipped with hormone and blood coagulation analyzers.

The construction of the small animal teaching hospital should be compatible to requirements for humane treatment of animals.

Rooms with individual lockers where clothes used by students during practical training are stored, should be specified.

6. 2. COMMENTS

The FVMSZ has a sufficient building area at its disposal. It should be restructured in order to best meet the requirements for quality education .

6. 3. SUGGESTIONS

Reconstruction of the existing base into small animal hospital ward.

Creation of reference laboratories for some types of analyses.

CHAPTER 7. ANIMAL AND TEACHING MATERIAL OF ANIMAL ORIGIN

7. 1. FACTUAL INFORMATION

7. 1. 1. ANATOMY

Table 7. 1. Material used in practical anatomical training

	dog/cats		ruminant		equine		birds /rabbits	
	2008	2007	2008	2007	2008	2007	2008	2007
live animals	1/0	1/0	1	1	1	1		
cadavers	16/0	17/0	20	20	1	1	25	25
specimen	15/0	15/0	10	10	1	1	10	10
bones	50/0	50/0	50	50	50	50	50	50
eg ultrasound	8/3	8/3	4	4	5	5		
Computer assisted teaching	6/4	6/4	3	3	6	6		

The practical training of osteology uses previously processed and dried bones and over 30 whole skeletons of various domestic and wild animals. The department of anatomy disposed of a collection of over 4,000 domestic animal bones and thus, each student is able to work independently during the practical sessions. Also, students are allowed to borrow bones from the collection for self-learning at home. The other themes of anatomy syllabus are visualized mainly with wet, and at a lesser extent with dry preparations. The fresh material (viscera, brain, eyes, hoofs, mammary glands etc.) are obtained from slaughterhouses or small ruminants, swine, horses and carnivores that are necropsied in the clinics. Such patients are mainly used for making preparations from blood vessels and nerves.

The preparations and animal cadavers are stored in four freezers, each of 8 m³. There The department has also six pools of 12 m³, for short-time storage of wet preparations in aqueous solutions (independently or in combinations) of sodium chloride, potassium and sodium nitrate, phenol, glycerol, ethanol etc. As compared to 20 years ago, formalin is less commonly used, only at minimum concentrations and mixed with other harmless substances. Its use is restricted only to a small part of practical training in topographic anatomy (2 hours) performed at premises far from the main training rooms of the department.

The museum of veterinary anatomy disposes with skeletons of various animals – horse, cattle, sheep, pig, dog, zebra, lions, bear, zebu, camel, deer, frog, snake, turtle, pelican, eagle, cockerel etc. and with many dry and wet preparations. The collection is continuously enlarged with new acquisitions. It is visited also by guests of the FVMSZ.

7. 1. 2. PATHOLOGY

The animal material for necropsy is from various sources - from larger animal farms in the region (poultry farms, breeder farms), with which the FVMSZ has arranged cadavers supply, in exchange for free diagnostics. Such agreement is made also with the rendering plant. Another source of material for necropsy are the faculty clinics. It should be pointed out that the number of farm animals in Bulgaria has significantly decreased over the last 10 years and respectively, the number of autopsies. The bulk of animal population is now privately owned, so the mortality rate has decreased on one part, and owners are not always willing to perform necropsy of dead animals. All this has a negative impact on the organization of practical training in pathoanatomy. Two years ago, the training in autopsy techniques and gross anatomy diagnostics were carried out in the summer semester of the 3rd year and the summer semester of the 4th year (with cadavers, macro preparations and slides). With regard to the maximum utilization of teaching material, this schedule was changes. Now, when cadavers are available, the courses are always held in the autopsy room regardless of the semester. Often, combined training is performed – with cadavers, macro preparations and slides.

The histological samples, examined for the last three years are as follows: 2006 – 1,820; 2007 – 1,538 and 2008 – 1,640.

Table 7. 2. Number of necropsies over the past three years.

Species	Number of patients			Average
	2008	2007	2006	
Food-producing animals:				} 78
cattle	16	13	3	
small ruminants	22	20	8	
pigs	13	82	57	
other farm animals	-	-	-	
Equine	5	-	-	
Poultry	312	253	47	} 232
Rabbits	37	42	8	
Companion animals/exotic :				} 84.3
dogs	99	77	24	
cats	28	19	6	
other	-	-	-	

7. 1. 3. ANIMAL PRODUCTION

The animals used in the practical training of students, are as follows:

- Owned by the FVMSZ – 6 cattle, 4 horses, 2 donkeys, 15 sheep, 2 goats, 6 pigs, 10 hens and turkeys
- Owned by other establishments to which the FVMSZ has access:
 - The University Experimental Farm with 105 cattle, 35 sport horses, 130 sheep and goats, 100 pigs, 60 rabbits and 16 hens.
 - The cattle farm, and sheep farm of the Institute of Agriculture – 370 cattle and 1075 sheep. The poultry farm houses about 1000 chickens and 1000 turkeys. The Institute is located at 15 km from the FVMSZ.

- Cooperative and private cattle and sheep farms in Zagore (70 animals), Maglzh (60), Gita (90), Svoboda (80), Sheynovo (50), Oryahovitsa (50), Sabrano (120) etc. They are within 25 km from the faculty.

7. 1. 4. FOOD HYGIENE / PUBLIC HEALTH

In the practical training of students in food hygiene, productive animals and foodstuffs of animal origin are used as follows: The inspection of slaughtered animals is performed in slaughterhouses as listed on p. 21, where each student works independently inspecting one porcine, small ruminant and poultry carcass. The inspection of large animal carcasses is carried out in small groups of 7–10 students.

The training in technology of foods in enterprises includes degustation of production. Laboratory practical sessions of food hygiene consist in individual work on different food specimens. The sampling protocol, sample preparation, the principal methods of analysis and analysis of parameters related to food safety, are learned. Studied foods and used methods are:

- meat and meat products: trichinoscopy, determination of the type of meat, chemical analysis of meat products, bacteriological examination of meat products;
- Milk and milk products: analysis of crude milk, crude milk quality, microbiological indices, chemical composition, residual amounts of inhibitors, analysis of dairy products, cheeses, butter etc.;
- Bee honey;
- Fish and fish products

The grade of the practical examination, that includes preparation and analysis of a specific parameters in a food sample, is an element of the final grade.

7. 1. 5. CONSULTATION AND PATIENT FLOW SERVICES

7. 1. 5. 1. CONSULTATION

The clinics of the FVMSZ are open all year round. In weekdays, they work from 7.30 AM to 4.30 PM. During the weekends and holidays, there is a veterinarian on duty between 8.00 AM and 4.30 PM.

7. 1. 5. 2. PATIENT FLOW

Table 7. 3. Number of cases : a) received for consultation, and b) hospitalized in the Faculty clinics, in the past three years.

Species	Number of cases						Average	
	2008		2007		2006			
	a	b	a	b	a	b		
Food producing:	Bovine	4	46	14	60	11	53	} 95.3
	Ovine, caprine	10	15	8	23	8	12	
	Porcine	3	2	8	2	7	-	
	Other farm animals **							
Poultry	31	1	38	–	33	–	} 46.0	
Rabbits	10	2	13	3	5	2		
Equine	11	28	17	11	18	31	39	
Companion animals:	Canine	1 203	81	1067	41	771	23	} 1244.0
	Feline	202	26	145	18	117	22	
	other*	16						

* various wild, zoo and exotic animal species: monkeys, deers, bears, lizards, parrots, camels, llamas etc.

7. 1. 6. VEHICLES FOR ANIMAL TRANSPORT

The FVMSZ owns one trailer for transportation of large animals.

7.1.7. ON-CALL EMERGENCY SERVICE

Emergency veterinary help is provided by the veterinary surgeon on duty if possible. Otherwise, he phone calls the respective specialist (the emergency states are registered in a special list). Emergency calls could be made on 042 699 516 – Farm animal clinic.

7. 1. 8. ON FARM TEACHING AND OUTSIDE PATIENT CARE

7. 1. 8. 1. AMBULATORY (MOBILE) CLINIC

Ambulatory clinical training is performed during the 9th and the 10th semester according to a previously approved schedule:

- 3 weeks – antiparasitic treatment of various animal species;
- 3 weeks – epidemiology and infectious diseases;
- 1 week – for each of: incidence of mastitis in dairy herds, pregnancy diagnostics, infertility evaluation in dairy herds, herd survey, neonatal pathology, castration of male and female pigs, hoof diseases in cows and sheep, cattle dehorning.

Each training session lasts for 4 hours and are carried out in the 9th semester (6 weeks) and 10th semester (10 weeks) – 20 hours per week or total 320 hours.

The mobile clinic is organized by the Farm animal clinic with the participation of instructors from the clinical departments. They are carried out in farms listed in 7. 1. 3.

During the last three years, the practical training in Productive Animal Pathology is carried out for 6 weeks during the 9th semester in farms. IN a similar manner is performed the practical training in Equine Diseases (4 hours per day). Students are transported with three buses of 50 places each and one microbus (10 places).

Therefore, 110 visits are performed in the different farms on the average: 62 for cattle, 15 for pigs, 15 for horses, 3 for poultry, 2 for rabbits, 12 for small ruminants etc. The average number of seen patients is about 700 cattle, 50 pigs, 20 horses, 1,000 chickens, 200 small ruminants.

Table 7. 4a. Number of cases seen by the ambulatory (mobile clinics) in the past three years.

Species	Number of patients			Average
	2008	2007	2006	
Food-producing animals:				} 5 368
cattle	1 822	1 641	1 470	
small ruminants	3 126	2 351	4 281	
pigs	109	606	698	
other farm animals				
Species	Number of patients			Average
	2008	2007	2006	
Poultry (no of flocks)	1	1	1	} 2
Rabbits (no production units)	1	1	1	
Equine	99	291	114	168
other	-	-	-	-

7. 1. 8. 2. OTHER ON FARM SERVICES AND OUTSIDE TEACHING

Table 7.4b. Number of patients seen outside teaching in the past three years.

Species	Number of patients			Average
	2008	2007	2006	
Food-producing animals:				} 2 399.7
cattle	907	816	694	
small ruminants	1 105	842	1 846	
pigs	27	102	211	
poultry		7	642	
Equine	278	373	346	332.3

7. 1. 10. RATIOS

Table 7. 5. Animals available for clinical training (in the clinics of the Faculty or seen through the Ambulatory clinic) as ratio to the number of students in last full year of clinical training

					Denominator
R 11	no. of students graduating annually	<u>132</u>	=	1	: 0.72
	no. of food-producing animals seen at the Faculty	95.3			
					Denominator
R 12	no. of students graduating annually	<u>132</u>	=	1	: 45.45
	no. of food-producing animals consultations outside the Faculty	5,895			
					Denominator
R 13	no. of students graduating annually	<u>132</u>	=	1	: 0.11
	no. of heard health visits	14			
					Denominator
R 14	no. of students graduating annually	<u>132</u>	=	1	: 0.27
	no. of equine cases	36			

					Denominator
R 15	no. of students graduating annually	<u>132</u>	=	1	: 0.36
	no. of poultry / rabbits cases	47			

					Denominator
R 16	no. of students graduating annually	<u>132</u>	=	1	: 9.43
	no. of companion animals seen in the Faculty	1,244			

					Denominator
R 17	no. of students graduating annually	<u>132</u>	=	1	: 0.02
	no. of poultry (flocks)/ rabbits (production units) seen	2.0			

Table 7. 6. Animals available for necropsy

					Denominator
R 18	no. of students graduating annually	<u>132</u>	=	1	: 0.60
	no. of necropsies food-producing animals + equines	79.6			

					Denominator
R 19	no. of students graduating annually	<u>132</u>	=	1	: 1.75
	no. of necropsies poultry/rabbits	232			

					Denominator
R 20	no. of students graduating annually	<u>132</u>	=	1	: 0.64
	no. of necropsies companion animals	84.3			

7. 1. 11. OTHER SPECIES

Some elective courses about bee and silkworms biology and pathology, fish pathology, tropical diseases, game biology and pathology, are included in the curriculum.

The training in Bee and silkworms biology and pathology are performed in the Training and Research Base of the section of Veterinary Microbiology and the University Apiary. The problem-base approach is used. Due to the specifics in bee and silkworm biology, students are acquainted with the rearing technologies, the most important non-infectious and infectious diseases, and the management of their prevention and control.

The training in the elective course of Fish biology and pathology is performed in the 7th semester of studies. Traditionally, the course is to the Department of Food Hygiene. Students are taught to classify hydrobionts, are acquainted with the technologies of fish farming, the diseases on fish and the means of their diagnostics and treatment. A special attention is paid on the normative base. Places where fresh-water fish are reared, are visited.

7. 2. COMMENTS

The last changes in the curriculum aimed to establish a species-oriented training and a permanent participation of students in patient services in faculty clinics and during visits to farms. We have currently problems with the training in Productive animal diseases, especially with pigs, rabbits and poultry.

7. 3. SUGGESTIONS

Increase of visits to farms with regard to Productive animal diseases training.

Organization of mobile service of animal patients with small groups (< 10 students).

Preparation of a guide for the standards of students' proficiency – „one day skills competence”.

Organization and introduction of 24-hour duties since June 2009 in the Clinical and Diagnostic unit.

The course of Fish biology and pathology should be further developed to provide knowledge on technologies for farming of mollusks, Crustacean species etc. In a future update of the curriculum, this course should preferably become obligatory.

CHAPTER 8. LIBRARY AND LEARNING RESOURCES

8.1. FACTUAL INFORMATION

8.1.1. LIBRARY AND OTHER INFORMATION TECHNOLOGY SERVICES

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 also available to the other two faculties situated in the Student Campus: Faculty of Agriculture and Faculty of Economics.

The staff is 5 full-time librarians.

The periodicals available either by subscription or through the book exchange programme, are about 46. The list below is given in the original language

Title	ISSN
Вестник ветеринарии	
Весці нацыянальнай акадэміі Беларусі	0002-3558
Ветеринарна медицина	1310-5825
Ветеринарна зборка	0205-3829
Ветеринарномедицински новини	1311-0284
Доклади на БАН	1310-1331
Инфовет	1312-143X
Месо и месни продукти	0861-6655
Моят приятел кучето	1310-3296
Наука	0861-3362
Селскостопанска наука	1311-3534
Российский ветеринарный журнал	1815-0195
Фондове, програми, проекти - финансиране, разработване, управление	
Фуражи и хранене	1311-8609
Хранително-вкусова промишленост	1311-0179
Acta Veterinaria Brno	0001-7213
Acta Veterinaria Hungarica	0236-6290
American Journal of Veterinary Research	0002-9645
Animal Science Papers and Reports	0860-4037
Annals of Warsaw Agricultural University	0208-5739
Biotechnology in Animal Husbandry	1451-9156
Bulgarian Journal of Agricultural Science	1310-0351
Bulgarian Journal of Veterinary Medicine	1311-1477
Bulletin of the Veterinary Institute in Pulawy	0042-4872
Hungarian Veterinary Journal	0015-5748
Equine Veterinary Journal	0425-1644
European Journal of Companion Animal Practice	1018-2357
Iranian Journal of Veterinary research	1728-1997
Irish Veterinary Journal	0368-0762
Israel Journal of Veterinary Medicine	0334-9152
Folia Veterinaria	0015-5748
Journal of the American Veterinary Medical Association	0003-1488
Journal of Animal Science	0021-8812
Journal of Equine Science	1340-3516
Journal of Protozoology Research	0917-4427
Journal of Small Animal Practice	0022-4510
Journal of the Hellenic Veterinary Medical Society	0257-2354
Journal of Veterinary Pharmacology and Therapeutics	0140-7783

Title	ISSN
Periodicum Biologorum	0031-5362
Revista Romania de Medicina Veterinara	
Slovenian Veterinary Research	1580-4003
Trakia Journal of Sciences	1312-1723
Veterinarski Arhiv	0372-5480
Veterinary Journal	0007-1935
Veterinary Pathology	0300-9858
The Veterinary Record	0042-4900

Through electronic databases, the library has access to the full text of other journals too.

The veterinary journals accessible in full-text through EBSCO Publishing – Academic Search Premier are:

- Acta Agriculturae Scandinavica: Section A, Animal Science
- Annals of Tropical Medicine & Parasitology
- Anatomia, Histologia, Embryologia: Journal of Veterinary Medicine Series C
- Animal Biology
- Animal Genetics
- Animal Science Journal
- Avian Pathology
- British Poultry Science
- Food & Agricultural Immunology
- International Journal of Primatology
- Internet Journal of Veterinary Medicine
- Journal of Animal Breeding & Genetics
- Journal of Animal Ecology
- Journal of Animal Physiology & Animal Nutrition
- Journal of Applied Microbiology
- Journal of Avian Biology
- Journal of Veterinary Pharmacology & Therapeutics
- Journal of Veterinary Emergency & Critical Care
- Journal of Veterinary Medicine Series A
- Journal of Veterinary Medicine Series B
- Journal of Zoological Systematics & Evolutionary Research
- Mammal Review
- Mammalian Genome
- Medical & Veterinary Entomology
- Physiological & Biochemical Zoology
- Reproduction in Domestic Animals
- Turkish Journal of Veterinary & Animal Sciences
- Veterinary Anaesthesia & Analgesia
- Veterinary Dermatology
- Veterinary & Comparative Oncology
- Veterinary Ophthalmology

The journals, accessible through Science Direct are:

- Agriculture, Ecosystems & Environment
- Animal Behaviour
- Animal Feed Science and Technology
- Animal Reproduction Science
- Applied Animal Behaviour Science
- Aquaculture
- Behavioural Processes
- British Veterinary Journal
- Clinical Techniques in Equine Practice
- Clinical Techniques in Small Animal Practice

- Comparative Immunology, Microbiology and Infectious Diseases
- Computers and Electronics in Agriculture
- Domestic Animal Endocrinology
- EMC - Vétérinaire
- Fish & Shellfish Immunology
- International Dairy Journal
- International Journal for Parasitology
- Journal of Comparative Pathology
- Journal of Equine Veterinary Science
- Journal of Exotic Pet Medicine
- Journal of Experimental Animal Science
- Journal of Feline Medicine & Surgery
- Journal of Trace Elements in Medicine and Biology
- Journal of Veterinary Behavior: Clinical Applications and Research
- Journal of Veterinary Cardiology
- Livestock Production Science
- Livestock Science
- Meat Science
- Pratique Médicale et Chirurgicale de l'Animal de Compagnie
- Preventive Veterinary Medicine
- Research in Veterinary Science
- Seminars in Avian and Exotic Pet Medicine
- Small Ruminant Research
- Theriogenology
- Topics in Companion Animal Medicine
- Tuberculosis
- Vaccine
- Veterinary Immunology and Immunopathology
- The Veterinary Journal
- Veterinary Microbiology
- Veterinary Parasitology

The following electronic information resources are accessible:

- VetLex
- PhytoLex
- AVIS
- EBSCO Host includes the following databases: CAB ABSTRACTS; ACADEMIC SEARCH PREMIER; BUSINESS SOUCHE PREMIER; MASTER FILE PREMIER; NEWSPAPER SOURCE; REGIONAL BUSINESS NEWS; ERIC; MEDLINE
- SpringerLink – includes all periodicals published by Springer, Birkhauser, Kluwer, Steinkopf, Urban & Vogel, Physica, Plenum, Consultants Bureau, Viweg.
- Science Direct – includes more than 2500 journals and over 6000 books.
- SCOPUS – multidisciplinary database of Elsevier, containing 5,300 titles in medical sciences.
- ISI Web of Knowledge
- ProQuest
- EMBASE – indexes 5,000 journals in biology, biomedicine, pharmacy.

The library also keeps all textbooks and manuals, published and edited by the instructors of the FVMSZ. Each book is kept in at least 4 copies – two for the reading room and two for the main fund. Each newly appeared title is ensured for about 20% of students from various sources. The reading room of the library disposes of 40 places and 4 automated places for use of electronic databases, internet access or self-learning.

The working hours of the library during the academic year are: Monday through Friday: 8.00–17.45; Saturday: 9.00–14.00. During the holidays, the library is open from Monday through Friday: 8.00–16.30.

The library provides information services to 1089 veterinary medicine students. On the average, about 9,700 visits are registered, and about 17,000 books in veterinary medicine are borrowed. Each day, bibliographic references are performed for students to assist them in the development of individual theses and other independent work. Both own and external resources are used for this purpose. The annual number of such services is about 780.

Students and instructors could also use the funds of the library of the Faculty of Medicine for other sources of specialized medical literature.

In the libraries of departments, there are also textbooks on the respective courses, that, in general, are the newest and the best ones.

8. 2. COMMENTS

The number of places in the library is low, especially those of PC workstations. The finalization of construction works of the new library building, situated near to FVMSZ premises, is necessary.

The number of published textbooks and the number of available textbooks in English is also insufficient. The main reason is the self-financing of these initiatives from the part of teachers and the common practice of copyright violation from the part of students, who reproduce copies without permission. Some steps are made with this respect, as the Trakia University has founded a publishing house that support financially the publication of textbooks.

The faculty authorities do their best to purchase the newest editions of the classical publications in veterinary medicine, that are available in the respective departments or clinics. Our ambition is to obtain the newest textbooks for each course within 2 years.

Each student could also work and search information in the own computer hall in the FVMSZ.

8. 3. SUGGESTIONS

To increase the number of new textbooks in Bulgarian language, available for rent.

To purchase, on a permanent basis, the newest textbooks for the various courses.

To increase the number of periodicals in veterinary medicine, received by the library

To increase the number of working stations for students.

To increase working hours of the library.

CHAPTER 9. STUDENT ADMISSION AND ENROLMENT

9. 1. UNDERGRADUATE COURSES

9. 1. 1. UNDERGRADUATE STUDENT NUMBERS

Minimum number of years: **5 years**

Table 9. 1. Undergraduate student composition in year prior to visitation

Total number of undergraduate students	984
Male student – total number	405
Female students – total number	579
Foreign students:	59
- from EU countries	10
- from non-EU countries	49

9. 1. 2. STUDENT ADMISSION

Prospective students of veterinary medicine could be admitted to the faculty provided that they have a high school diploma. The admission is performed on the basis of the entrance score. The latter could be formed by one of the following two ways:

1. From the grade of the matriculation exam of biology and health education plus the grades of two additional score-forming courses.
2. From the grade of the written examination of biology, organized and carried out by the University, plus the grades of two additional score-forming courses.

The number of students enrolled is determined on an annual basis by the Ministry of Education and Science, on the basis of the number requested by the University and the faculty potential for training undergraduate students.

All students enrolled in the Faculty of Veterinary Medicine are state-funded and therefore, the number is strictly defined and could not be exceeded.

The selection of students is performed on the basis of the described procedure, and the distribution of positions is determined within a single campaign for all faculties of the university. Each candidate can apply for more than one major.

The very different level of knowledge in natural sciences is a serious problem for the FVMSZ, especially in recent years when prospective students are allowed to enroll in the FVMSZ only on the basis of their high school grades, without written entrance examination. During the training process, the various level of knowledge and learning performance become especially apparent.

The number of state-funded students in veterinary medicine could not be exceeded. Extra students of other veterinary faculties could be eventually enrolled, but only if several criteria for compliance of courses taken are observed.

By now, the number of students that would be admitted during the future years, could not be foreseen. The Ministry of Education and Science, being the responsible body for the state policy in the field of higher education, could either reduce the number of state-funded students to comply with the needs of the country.

Table 9.2. Intake of veterinary students in the past five years

Academic year	Number of candidates applying for admission	Number of admitted	
		Standard intake	Other entry mode
2008/09	389	160	-
2007/08	290	160	-
2006/07	291	160	-
2005/06	356	160	-
2004/05	388	160	-
Average		160	-

9. 1. 3. STUDENT FLOW

Table 9.3. Student flow and total number of undergraduate veterinary students

Number of students, present after admitted year 1		Additionally admitted students	After leave of absence
1 st year	153	2	9
2 nd year	134	6	24
3 rd year	126	5	54
4 th year	126	15	43
5 th year	138	6	1
6 th year	143	-	-
> 6 th year	57	-	-
Number of undergraduate veterinary students		879	131

Table 9.4: Number of students graduating annually over the past five years

Year	Number graduating
2008	129
2007	149
2006	117
2005	170
2004	137
Average	140

Table 9.5. Average duration of studies (distribution of students in years)*

Average duration of studies, years	Number
5.5 years	71
6.5 years	23
7.5 years	21
8.5 years	4
9.5 years	6
10.5 years	3
>10.5 years	1
Total number graduating in 2008	129

Any student with three or more courses that are not attended or not passed after the second resit examination session, is required to take a leave.

Other reasons for interruption of studies include unfulfilment of the mandatory attendance rate of a course, of all courses within a semester, incomplete practical training sessions, long-term illness, maternity leave, financial or other consistent reasons.

Students are eligible for only one leave because of poor performance and one due to other reasons for the entire course of tuition.

Undergraduates with irregular student status who have not applied for a leave of absence, are dismissed according to the approved administrative procedure.

Students suspended because of poor performance, could take the examinations during the regular examination session of the semester, during which the respective course is taught. In case that they cannot succeed to pass successfully the failed examinations within one academic year, they are dismissed from the university with an order of the Rector, issued no later than 1 month after the last date of the second resit examination session.

Students who do not fulfill their academic requirements during the semester, whose mandatory attendance rate of courses had not been certified, and have no sound reasons for that, are required to repeat the year.

Students dismissed from the university, can be readmitted only by participating in the entrance exam procedure according to the admission policy of the university, provided that no less than five years have passed since the dismissal order. They are also required to obtain at least the lowest passing grade – 3.00 (sufficient).

The passed courses of students with reinstated student rights are recognized only if no changes have occurred in the content of courses. If the curriculum had meanwhile changed, the students continue their studies according to the new curriculum and are obliged to take non-passed exams. The academic standing is determined by order issued from the Rector, upon proposal of the Dean of FVMSZ.

If more than five years have passed since the student's dismissal, they can restore their rights and continue their studies according to an individual plan that takes into consideration the changes in the content of courses. The individual plan is coordinated with the faculty members responsible for the respective courses and is approved by the Dean of the Faculty.

9. 2. COMMENTS

The problem with the standard of the students starting the course is serious, due to the very different level of knowledge on basic sciences of enrolled students and its impact on their performance.

The premises and lecture halls are fitted for training of 160-200 students.

The different level of knowledge of admitted students is the main cause for their various performance. According to regulations of the Trakia University and the FVMSZ, students are allowed to take one leave because of poor academic performance and one – because of other reasons. The leave is an option for taking examinations, that were not taken during the regular examination session.

The percentage of graduating students is a consequence of all discussed factors. The graduation of about 60-70% of admitted students in our opinion is an evidence, that only most motivated students complete their studies.

The remaining 30-40% also attempt to graduate throughout the next state examination sessions (this could be done within 5 years after completion of all examinations from the semesters). Finally, less than 15% of all enrolled students do not graduate.

9. 3. SUGGESTIONS

The number of admitted students in veterinary medicine is a state policy issue in the field of higher education. It is determined by the Ministry of Education and Science. The number of state-funded students is also one aspect of the national social policy. In our opinion, for a small country with a definite reduction in the scale of livestock husbandry, the annual admission of about 210-220 students in veterinary medicine is rather high. Having in mind that the capacity of the FVMSZ is for training of 200 students, the questions whether the country needs a second Faculty of Veterinary Medicine remains open

The main suggestion with this regard is that funding of tuition could be per student for the entire period of studies (5.5 years). Currently, the state subsidy depends on the number of students for each year and it decreases as more students take leaves or are dismissed. At a certain moment, this could result in such reduction in funding, that instructors from the FVMSZ are forced to make various kinds of compromises (additional examination sessions outside the regular ones as described in 5.1.3., enrolment into an upper course with more untaken exams etc.)

CHAPTER 10. ACADEMIC AND SUPPORT STAFF

The teaching staff of the FVMSZ is paid from the budget of the Trakia University. Occasionally, there are guest lecturers whose remuneration is supported by other funds.

Staff members with permanent employment could be divided into three categories:

- Instructors, working only in the departments and clinics of the FVMSZ;
- Instructors, employed by other faculties within the Trakia University and who also train students from the FVMSZ;
- Instructors, working in research institutes or clinics, who are engaged in teaching activities on a part-time basis.

All members of the academic staff of the FVMSZ also participate in research.

For many years, the number of teaching posts has been determined by the number of students, groups, respectively by the number of course hours (both theoretical and practical). There are also normatives for the annual workload of instructors according to their position (240 hours for professors, 300 hours for associate professors, and 360 hours for assistant professors). Therefore, the total number of teaching posts at the FVMSZ is a function of the number of students.

The support staff in the various departments is determined as ratio of teaching/support staff that varies between 0.5 and 1.0. In general, working at the FVMSZ is prestigious, so the qualified workers are easily kept with small exceptions. Currently, we have not problems with appointment of personnel at the FVMSZ at all levels.

The work activities of faculty staff outside the FVMSZ is considered as useful as it could bring additional patients for the training of students. There are clauses in the faculty's rulebook that regulate such activities. Faculty members are often invited for consultation of animal patients in private farms. They also participate as advisors to the National Veterinary Service, state and private organizations.

Upon a request or approved report, the FVMSZ supports partly the participation of instructors and PhD students in scientific conferences and congresses held abroad.

Table 10.1. Personnel in the establishment for veterinary training (*PhD students not included)

	Budgeted posts (FTE)		Non-budgeted posts (FTE)		Total (FTE)	
	VS	NVS	VS	NVS	VS	NVS
1. Academic staff						
Teaching staff (total FTE)	103	13.25			103	13.25
Research staff (total FTE)	103	13.25			103	3.25
Total FTE	116.25				116.25	

	Budgeted posts (FTE)	Non-budgeted posts (FTE)	Total (FTE)
2. Support staff			
a) responsible for care and treatment of animals	35		35
b) responsible for the preparation of practical and clinical teaching	35		35
c) responsible for administration, general services, maintenance, etc.	34		34
d) engaged in research work	3		3
Total support staff	107		107
Total staff	223.25		223.25

Table 10. 2. Allocation of academic (veterinary surgeon and non veterinary surgeon) training staff – expressed as FTE – and support to the various departments

Department name	Full professors		Associate professors		Assistant professors	
	VS	NVS	VS	NVS	VS	NVS
Obstetrics, Reproduction and Reproductive Disorders	1		2		4	
Veterinary Anatomy, Histology and Embryology			2		10	
Pharmacology, Animal Physiology and Physiological Chemistry	1		7	2	5	2
Internal Non-infectious Diseases	2		2	1	7	
Veterinary Microbiology, Infectious and Parasitic Diseases	2		9		7	
General and Clinical Pathology	1		5		5	
Animal Food Hygiene and Control	2		1		5	
Animal Husbandry	5		4		4	
Veterinary Surgery	3		1		6	
Total	17		33	3	53	2

Department name	Support staff		
	Technical (b+d+c)	Animal carers (a)	Administration (c)
Obstetrics, Reproduction and Reproductive Disorders	3		
Veterinary Anatomy, Histology and Embryology	6	2	
Pharmacology, Animal Physiology and Physiological Chemistry	8	3	
Internal Non-infectious Diseases	4		
Veterinary Microbiology, Infectious and Parasitic Diseases	10	5	
General and Clinical Pathology	5	2	
Animal Food Hygiene and Control	5	2	
Animal Husbandry	7	1	
Veterinary Surgery	3		
Clinical Diagnostic Unit	13	9	
Administration			11

From the above data, the following ratios have been calculated:

Table 10.3. Ratios student/staff

R1	No. total academic FTE in Veterinary training/no. undergraduate vet. students	110.25/984	1/8.92	Denominator 8.92
R2	No. of total FTE at Faculty/no undergraduate students at Faculty	102/984	1/9.64	Denominator 9.64
R3	No. total VS FTE in Veterinary training/no. undergraduate vet. students	97/984	1/9.55	Denominator 9.55
R4	No. total VS FTE in Veterinary training/no. students graduating annually	97/132	1/1.36	Denominator 1.36
R5	No. total FTE academic in Veterinary training/no. of total FTE support staff in veterinary training	110.25/107	1/0.97	Denominator 0.97

10. 2. COMMENTS

In our opinion, the ratio of academic to support staff allows adequate solution of all issues related to veterinary medicine training. This ratio is maintained for many years and insignificant changes could result from changes in the curriculum, creation or closing of auxiliary units.

The salaries of the academic staff are regulated and approved by the Social Partnership Committee within the budget frames. The remuneration of professors and associate professors

are accepted as normal on the background of the life standard in Bulgaria, but those of assistant professors are low and this leads to difficulties in staff recruitment, as salaries in private clinics are 2 to 3 times higher. The average salary in Bulgaria is about 530 BGN and the monthly salary of a newly employed assistant professor is 614 BGN. The main advantage of being employed by the FVMSZ comes from the regularity of salaries and social insurances.

The incompatibility of the R4 coefficient is due to the high percentage of trainers with veterinary medicine education, that work in fundamental sciences departments.

10. 3. SUGGESTIONS

The main suggestion is to increase the salary of assistant professors, regardless of the fact that those working in clinical departments receive additional remuneration depending on performed clinical services, and salaries of support staff members.

CHAPTER 11. CONTINUING EDUCATION

11.1. FACTUAL INFORMATION

Continuing education of veterinary graduates is organized and performed with a close cooperation from the National Veterinary Service and the professional organizations of veterinary surgeons in Bulgaria. In charge of all activities related to continuing education, is the Continuing Education and Postgraduate Studies Service and its chair, Assoc. Prof. Parvanov.

The Continuing Education and Postgraduate Studies Service works as per the rules established in the respective department of the Trakia University and is reglamented in Rules for the structure, activities and management of the FVMSZ.

The continuing education is performed in two forms:

1. Short-time group and individual specializations on actual problems of veterinary medicine and animal health. Such courses end with examination and participants receive a diploma for specialization, registered and certified by the Ministry of Education and Science.

For 2007-2009, a total of 43 courses in 6 fields were carried out in the FVMSZ with 800 participants.

Table 11. 1. Short-time group specializations (courses) organized and performed by the FVMSZ.

Theme	2007		2008		2009		Course hours
	courses	partici-pants	courses	partici-pants	courses	partici-pants	
1. Animal protection, safe and humane transport of animals	19	408	11	136			20
2. Artificial examination of ruminants	1	11	1	14	1	20	32
3. Implementation of HACCP in bee honey processing enterprises	1	6	-	-	-	-	16
4. Humane treatment of animals in zoo stores	-	-	1	28	1	17	16
5. Lymphatic system of domestic equids	-	-	-	-	1	60	8
6. Food safety management systems	-	-	-	-	5	100	40
Total	21	425	13	178	8	197	
2007-2009	42 courses with 800 participants						

2. Organization of seminars, conferences, symposia, presentations of companies, consultations, training sessions for improving professional skills.

Veterinarians, participating in such forms of continuing education are registered and obtain a certificate of attendance. Most of these activities are organized and held together with the NVS, professional organizations as well as with foreign partners.

Every year, the FVMSZ is hosting international and national conferences, presentation of Bulgarian and foreign manufacturers of veterinary drugs and equipment, with the participation of veterinary surgeons.

In 2006, together with the National Veterinary Service, the US Agency of international development and the Department of Agriculture, two seminars on Prevention, control and eradication of avian influenza were carried out with 260 participants. The seminars consisted of 10 hours of lectures and 10 practical trainings in the Department of General and Clinical Pathology.

For 2006-2008, 5 seminars on Productive animal, small animal and bee health were organized, with 388 participants.

Together with the Bulgarian Association of Small Animal Practitioners, the FVMSZ has organized 4 seminars with 302 participants.

The FVMSZ is an establishment open to continuing education and consultations of veterinarians and companies, by involvement of our instructors in seminars, practical trainings, organized by professional and external organizations.

Table 11. 2. Seminars with participation of veterinary surgeons from Bulgaria organized and performed by the FVMSZ.

Year	Theme	Course hours	Number of participants
2006	Prevention, control and eradication of avian influenza	2 courses × 20 hours	260
	Small animal medicine	6 hours	70
2006 2008	Productive animal, small animal and bee health	2 courses × 7 hours	120
	Canine pathology (presentation of Ceva Sante Animale)	7 hours	86
	Canine Surgery	7 hours	112
2007 2008 2009	Clinical cases from the practice	3 courses × 7 hours	190

11. 2. COMMENTS

During the recent years, the FVMSZ became a natural centre for continuing education and postgraduate studies. The advantages of the faculty are the geographical position (in the centre of the country), the best equipped material base (teaching, clinical, diagnostic etc.) and the close relationships with the NVS and professional organizations (Bulgarian Veterinary Union, Bulgarian Association of Small Animal Practitioners). The academic staff of the FVMSZ are highly qualified, most of them are leading national specialists in the respective field.

11. 3. SUGGESTIONS

By initiative of the Faculty of Veterinary Medicine, the NVS would soon introduce a mandatory periodical professional evaluation of veterinarians in order to improve the level of their professional competence.

The Minister of Agriculture and Food has already appointed a working group to prepare the respective normative act. In this group, the Associate Dean of Academic Affairs and the chair of the Continuing Education and Postgraduate Studies Service, are included.

At present, continuing education is also obligatory as per Regulations 853/2004 and 854/2009. The National Veterinary Service should provide the details about the performance of the training and the institution that should issue the documents. In accordance with the Higher Education Law, this is in the competence of higher education establishments.

CHAPTER 12. POSTGRADUATE EDUCATION

12.1. FACTUAL INFORMATION

The FVMSZ is the only Bulgarian higher education establishment entitled to perform postgraduate education of veterinary specialists. The training consists in long-term individual specializations (18 months) and acquiring of additional professional qualification.

Postgraduate education is performed according to special curricula and syllabuses. The latter are developed by course instructors (both for short-term and long-term specializations) together with specialists in the respective field of veterinary science, and are coordinated with representatives of the NVS and professional organizations. The programmes are discussed and approved by the Faculty Council, and thereafter, approved by the Rector of the Trakia University.

Table 12.1. Long-term individual specializations

Field	Number of participants				Current specializations	Hours
	2006	2007	2008	2009*		
Epidemiology and prevention of infectious animal diseases	10	14	7	2	21	299
Veterinary surgery and dentistry	4	-	1	-	6	420
Veterinary bacteriology and microbiological diagnostics.	4	3	-	-	7	105
Veterinary sanitary expertise of animal foodstuffs	42	43	53	1	45	612
Veterinary legislation and management	1	4	6	-	6	822
Apiculture, bee pathology and laboratory diagnostics of diseases of bees and brood comb	-	1	1	-	1	242
Clinical laboratory diagnostics of non-infectious animal diseases	-	1	1	-		624
Poultry diseases	-	-	2	-	3	295
Large ruminant pathology	-	-	-	-	3	345
Swine diseases	-	-	-	-	9	305
Pharmacology	-	-	-	-	1	312
Parasitology	-	-	-	-	2	315
Virology	-	-	-	-	1	540
Total	61	66	71	3		
Total for 2006-2009	201				105	

* data for 2009 are by the time of SER preparation.

The education is part-time, and includes periodical consultations and practical training sessions, self-directed learning and examinations. Specializations end with successful defense of a diploma thesis. After completion of postgraduate education, participants receive a certificate for additional qualification (diploma), certified and registered in the Ministry of Education and Science. During the specializations, participants are not leaving their workplaces for a long time, do not receive grants, but salary from their employer.

For 2006-2008, a total of 201 individual specializations have been carried out in the Faculty of Veterinary Medicine (see Table 12.1) in 12 fields of veterinary medicine. During 2009, the number of current specializations is 105.

The FVMSZ does not perform training in EC-certified programmes.

The number and distribution of doctoral students for 2006-2008 is given below (Table 12.2)

Table 12.2. PhD students

Signature	Specialty	Full-time	Part-time
010609	Radiobiology	1	2
010617	Animal and human physiology	1	
010626	Morphology		1
030124	Pharmacology	1	2
040306	Animal pathology	1	7
040307	Parasitology		3
040308	Obstetrics, gynaecology and neonatal pathology	1	
040309	Surgery, radiology, physiotherapy		3
040311	Veterinary sanitary expertise of foods	1	
040312	Epizootology, infectious diseases and prevention of infectious animal diseases		1

12. 2. COMMENTS

In our view, the number of graduates enrolled in postgraduate studies is not sufficient. The causes are as follow:

1. Financial reasons (a large part of trained graduates pay the training themselves);
2. The lack of regulations that require from veterinarians to carry out postgraduate studies.

12. 3. SUGGESTIONS

The future perspectives with regard to postgraduate education in the FVMSZ are:

- more various subjects of postgraduate education courses;
- introduction of training in EC-certified programmes;
- improving the quality of postgraduate education;
- introduction of some details of distance learning (virtual clinic, online courses etc.);
- making postgraduate education familiar to target audience by a better media and internet advertisement campaign.

CHAPTER 13. RESEARCH

The priority research areas, funded by the FVMSZ in 2009–2001 are as follow:

1. Important animal diseases – new aspects of etiology, pathogenesis, diagnostics and treatment.
2. Animal welfare.
3. Food safety.
4. New approaches in determining the health status of animals and the role of various influencing factors.

At present, the main subjects of research carried at the FVMSZ could be summarized as:

1. Investigations on the etiology, pathogenesis, diagnostics and therapy of important infectious and non-infectious diseases.
2. Investigations on the health status and the reactivity of animal organisms.
3. Investigations on factors influencing the systemic behaviour of xenobiotics, food safety and environmental factors.

In general, veterinary medicine students participate in research work as volunteers. For that reason, only personally interested students are engaged in research activities.

The stimuli for student research are as follows:

- Provision of funds from the budget of the Trakia University for students to conduct research, including the organization of student scientific conferences from the Student Organization.
- In the process of preparing university-funded scientific work, projects with student participation are considered with priority.

At present, about 50 students work in several research projects with a various degree of involvement. Their workload is not fixed as hours or days but depends on the specific tasks of projects.

13. 1. COMMENTS

The participation of undergraduate students in the research carried out in faculty clinics and departments gives an excellent opportunity to select prospective assistant professors among students with a real interest in veterinary medicine. This is also a stimulus for departments to give students a chance to be part of research.

13. 2. SUGGESTIONS

There are opportunities for increasing the number of students involved in various research projects funded by the university and they should be employed.