TRAKIA UNIVERSITY
FACULTY OF VETERINARY MEDICINE
CONTINUING EDUCATION COURSES

LONG-TERM (18 MONTHS) CONTINUING EDUCATION COURSES

Department Hygiene, Technology and Control of Food Products of Animal Origin, Veterinary Legislation and Management

Course for postgraduate education: **"Veterinary Legislation and Management"**
Long-term postgraduate course – duration 1 year (12 months).
This course is intended only for individual specialization.
Course information:
The postgraduate course is intended to veterinarians from the public veterinary sector, including competent authorities, ministries, research institutes, risk assessment centres, regional food safety directorates.
The duration of this long-term course is one year (12 months).
Totally, the in-class activities are carried out for 41 hours, divided as follows:
- lectures – 28 hours;
- seminar lessons – 13 hours.

The lectures and seminar lessons take place at the lecture halls of the Veterinary Legislation and Management Unit at the Faculty of Veterinary Medicine, Trakia University – Stara Zagora. The number of the course participants is limited to 1 as this is a form of an individual specialization.
Tutor profile:
Two lecturers are in charge of this long-term course:

- Assoc. Prof. Dr. Gergana Nikolova Balieva, PhD – habilitated;
- Assist. Prof. Dr. Laska Miteva Kostadinova – not habilitated.

Course description:
The course covers the following topics, relevant to the management and legislative framework of veterinary activities in the public sphere:
I. Hierarchy of the Legislative Framework of the Veterinary Activities.
This section covers the international legal regulation of the veterinary activities, set by the OIE Animal Health Code and the legislative acts of EU. Attention is paid to the epidemiological surveillance and monitoring of animal health, animal disease notification, requirements and application of zoning and

compartmentalization. An emphasis is made on the general principles and criteria for evaluation of national veterinary services.

II. Legal Regulation of the Veterinary Activities in the Republic of Bulgaria.

This section covers the main principles and stages of the development of veterinary legislation process in Bulgaria. Here are given the specific features of the development and implementation of the specific veterinary laws, regarding the correspondent economic and political management of the state, including the EU membership.

III. Characteristics of the Veterinary Management.

This section covers the main characteristics of the management of veterinary activities, including the decision-making process. Attention is paid to the instruments like communication, marketing, human resources management and leadership as key factors for effective performance of the veterinarians in their relations with colleagues, competent authorities, etc.

IV. Border Veterinary Control Management.

This section covers the legally regulated principles, criteria and requirements for international trade, set by the OIE Terrestrial Animal Health Code and the European and Bulgarian legislation.

Learning outcomes:

At the successful completion of the course the students will acquire the following knowledge and skills:

- Theoretical - knowledge and skills to properly interpret and analyze the legal regulations of the veterinary activities from the international, European and national legislative framework on veterinary services. Students gain theoretical knowledge in the field of management of animal health and welfare, food safety and border control. They can define and discuss on decision-making process, on the methods and principles of organization and management of planning, prognosis and programming of public veterinary activities.
- Practical – knowledge and skills for development of a legislative document. Course participants gain and improve their communication skills. They learn to identify main risk factors for the management of animal health and welfare, food safety and border control.

Assessment method:

After the completion of the course a thesis has to be prepared and defended before a commission formed by at least three examiners. The thesis covers a topic from one of the course sections and presents the student`s view on the development and

achievements in the relevant public veterinary field, with examples from the scientific literature and his/her own experience.

The assessment is based on the grade estimated in percentages from the total number of criteria which the thesis has to comply with. The final grade is formed upon the six-grade scale. The minimum passing grade is sufficient (D, E):

Excellent 6	Very Good 5	Good 4	Sufficient 3		Poor/fail 2	
A	B	C	D	E	FX	F

Grading scale:

Poor/fail (2) – very unsatisfactory level of knowledge (<50%), cheating attempts, plagiarism.

Sufficient (3) – compliance with 50-60% of the criteria.

Good (4) – compliance with 60-75% of the criteria.

Very good (5) - compliance with 75-90% of the criteria.

Excellent (6) – compliance with 90-100% of the criteria.

DEPARTMENT "Veterinary microbiology, infectious and parasitic diseases"

Postgraduate Course: „**Beekeeping, Bee Pathology and Laboratory Diagnostics of Bee Diseases** "

Long-term individual specialization

Course Information: The course lasts for 18 months and is intended for practitioners of veterinary surgeons. The curriculum includes a total of 242 teaching hours of which 76 hours of counseling, 26 hours of practical exercises and 142 hours of self-preparation. The consultations and practical exercises are conducted at the faculty's educational base.

Profile of lecturers: assoc. prof. Parvan Parvanov PhD; assist. prof. N. Rusenova PhD

Course description: The curriculum includes 6 study modules - I.Biology of the bee family and bee-keeping, II.Infectious and invasive diseases, III. Non-infectious diseases and bee toxicities. Pests and pests, IV. Diagnosis of bee diseases - practical classes, V. Prophylaxis of bee diseases, VI. Quality and safety of bee products ending with an oral examination. The 7th module includes Consultations for the development of a scientific report or a final State Exam.

Learning outcomes: Additional qualification in diagnosis, prevention and control of bee diseases.

Assessment methods: Oral examinations by six-point system.

Department
Pharmacology, Physiology of Animals and Physiological Chemistry

Course for postgraduate education:
Pharmacology (long-term, individual/group specialization)

Course information: The postgraduate course is intended to veterinary practitioners as well as veterinarians who work in institutions related to drug control and legislation. The duration of the course is 282 hours spread in 18 months. The lectures and discussion with the participants are 60 hours. During the rest 222 h they are working with the supplied literature and are able to communicate with the lecturers to discuss the questions related to the topics. The participants are able to visit the labs in the University in order to have information about the routine techniques used in pharmacology and some newer technics according to the scientific work in the Department. The venue of course is at Trakia University, in the seminar rooms of the Department and in the labs of the University. The specialization can be performed as individual or group course (n=6).
Tutor profile: Two habilitated lecturers (one Professor and one Assoc. Professor) are involved in the teaching and preparation of the thesis. Their main subjects are pharmacotherapy and pharmacology.
Course description: The aim of the course is to discuss and to update the knowledge on legislation, production, distribution and prudent use of drugs from different classes; basic concepts in pharmacology; origin of medicines; development and control of drugs; routes of administration of drugs; pharmacokinetics and pharmacodynamics; drugs affecting autonomic nervous system; theories of anesthetic action and general anesthetics, sedatives; neuroleptics; opioid analgesics; nonsteroidal anti-inflammatory drugs; local anesthetics; histamine and antihistamine drugs; drug acting on the cardiovascular system and haemopoiesis, haemostasis and thrombosis; endocrine pharmacology; drugs acting on the gastrointestinal tract; diuretics; drugs acting on the uterus; antimitotic drugs; antibacterial drugs; antiprotozoal drugs; anticoccidial drugs; antiparasitic agents (nematocides, anticestodal and antitrematodal agents); insecticides and acaricides; antiseptics and disinfectants.

Learning outcomes: At the end of the course the participants have contemporary knowledge about the new tendencies in drug development, the actual legislation for production of drugs, drug distribution and use. They are able to understand and apply knowledge on pharmacokinetics and pharmacodynamics. Special attention is paid on the update of the knowledge on drugs acting on central nervous system; on drugs affecting autonomic nervous system; endocrine pharmacology; cardiac drugs; antihistamine drugs; dugs affecting haemopoiesis, haemostasis and thrombosis; antimicrobial and antiparasitic drugs. One of the most important topics is related to the rules of antibiotic administration in veterinary field in relation to the problem of microbial resistance, EU directives and best practices to manage the health of the animals.
Assessment method: The specialization includes six oral exams during the course. At the end it finished with preparation and defense of thesis related to contemporary problem in the daily work of the candidate in the field of veterinary medicine.

Department ”Veterinary Microbiology, Infectious and Parasitic Diseases”

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization);
Epidemiology and Prophylaxis of Infectious Animal Diseases; long-term, individual specialization
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
This postgraduate qualification is intended for laboratory veterinarians involved in the diagnosis of bacterial infections in farm animals and for veterinarians working at the Bulgarian Food Safety Agency and the Risk Assessment Center at the Ministry of Agriculture. The lecture course includes 80 hours of epidemiology, 20 hours of disinfection, deratization, and disinsection, 20 hours of infectious diseases of international and national importance, 50 hours of general infectious diseases and infectious diseases for ruminants, 10 hours of infectious swine diseases, 24 hours of infectious poultry diseases, 24 hours of infectious horse diseases, total- 228 hours. The practical exercises include 14 hours of epidemiology, 6 hours of disinfection, deratization, and disinsection, 5 hours of infectious diseases of international and national importance, 14 hours of general

infectious diseases and infectious diseases for ruminants, 3 hours of infectious swine diseases, 10 hours of infectious poultry diseases, 4 hours of infectious horse diseases, diploma project consultations 15 hours, total hours-71. Each of the lecture courses ends with a theoretical exam.
Tutor profile: (number of teachers, habilitated, not habilitated)
1. Prof. Mihni Lyutskanov DSci
2. Prof. Ilia Tzachev DSci
Course description: The emphasis in the program is on the methods in epidemiology, mathematical modeling in epidemiology, mathematical prognosis in epidemiology, respectively the knowledge in the epidemiological analysis and synthesis The program contains lectures that familiarize learners with the prevention of infectious diseases and diagnostic of infectious diseases in farm animals. The emphasis in the program is too on the normative acts regulating the prevention and control of infectious diseases in farm animals. The lecture course of infectious diseases of international and national importance includes foot-and-mouth disease, swine vesicular stomatitis, cattle plague and small ruminant plague, classical swine fever and African horse disease, bluetongue in ruminants, sheep and goat pox, African swine fever, Newcastle -avian disease, swine influenza.
Learning outcomes: Learners, after completing the program should be able to: organize and control preventative measures in relation to infectious diseases in farm animals, carry out correct epidemiological studies, perform specific mathematical analyzes in connection with the prognosis of the infectious process.
Assessment method: Diploma work covering the information obtained during the lectures and practical training.

Department Hygiene, Technology and Control of Foodstuffs

Courses for postgraduate education: **Veterinary sanitary expertise of animal foodstuffs**

Long term, individual
Course is intended for veterinarians starting working for Bulgarian Agency of Food Safety (BAFS) and Laboratories for Food control. Duration is 12 months, part time education. Lectures and practical exercises are total 195 hours in 6 modules. Proportion between lectures and practical exercises is 1:3.
Venue is laboratories of the Department. In the last 5 years there are 7 learners.

Teachers – 4 habilitated and 1 non habilitated.
Course description: The course gives initial knowledge of veterinarians who start work at the BAFS. The normative documents related to the work of the control bodies, the production technology and the way of control of different products are considered. Case studies are discussed. Attention is drawn to documents issued by the EFSA.
Learning outcomes: students gain broader knowledge of the subject and learn new methods of food assessment. Attention is drawn to new information in the field of control of foods
Assessment method: defense of a scientific thesis related to a real problem in the work of the student

Department Hygiene, Technology and Control of Foodstuffs

Courses for postgraduate education: **Food microbiology**

Long term, individual

Course is intended for veterinarians and other specialists (biologists, microbiologists) whose work related with control of Foods (mainly Laboratories). Duration is 12 months, part time education. Lectures and practical exercises are total 54 hours in 5 modules. Proportion between lectures and practical exercises is 1:1.
Venue is laboratories of the Department of Hygiene, Technology and Control of Foodstuffs and Dept. of Microbiology. Learners are less than 1 of year.
Teachers – 3 habilitated and 2 non habilitated.
Course description: The course gives knowledge about the specifics of food microbiology. Methods of examination of different products and determination of different microorganisms, and foodborne pathogens are studying. Attention is drawn to documents issued by the EFSA.
Learning outcomes: course graduates are introduced to the structure of laboratories and methods of sampling and examination. They can do basic research in microbiological food control.
Assessment method: defense of a scientific thesis related to a real problem in the work of the student

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: **"Reproduction of large ruminants animals",** long-term, individual specialization, in absentia.
Course information: The course is intended for veterinary surgeons. Duration eighteen months.
Tutor profile: The cours are led by two habilitated lecturers.
Course description: The course includes information on the following topics:
Physiological bases of reproduction. Intensification of the breeding process. Diagnosis of pregnancy. Post-natal inflammatory processes of the genital organs. Control of the postpartum period. Bone of ovaries and oviducts. Congenital and acquired sexual organ abnormalities. Sexual interference. Inflammatory processes of the sexual organs. Infertility without visible signs.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Diploma work

Departments "Internal Non-infection Diseases", "Veterinary Surgery", "Obstetrics, reproduction and reproductive disorders", sections of "Contagious and Parasitic Diseases".

Course for postgraduate education: **"Diseases of large ruminants animals",** long-term, individual specialization, in absentia.

Course information: The course is intended for veterinary surgeons. Duration eighteen months.
Tutor profile: The cours are led by six habilitated lecturers.
Course description: The course includes information on the following topics:
Indigestion-classification. Atonia and hypotension of the rumen. Overflow of rumen with food. Spasms of pre-stomach bulging of the booklet. Hofflund's Syndrome. Ostro and chronic swelling of the rump. Hyperkeratosis and parakeet of the rumen. Expansion and scrolling of the syrishnica and the intestine. Traumatic inflammation of the grid and peritoneum. Inflammation of the peritoneum. Cervical dystrophies. Postnatal liver dystrophy in cows. Ketosis.
Physiological bases of reproduction. Intensification of the breeding process. Diagnosis of pregnancy. Post-natal inflammatory processes of the genital organs. Control of the postpartum period. Bone of ovaries and oviducts. Congenital and acquired sexual organ abnormalities. Sexual interference. Inflammatory processes of the sexual organs. Infertility without visible signs.

Surgical infections in large ruminants. Diseases of the locomotor apparatus in large ruminants.Podology.
Risk analysis and management in cattle breeding. Screening and monitoring in cattle breeding. Biosurfits-programs in cattle breeding. Disinfections in cattle breeding. Disinsection in cattle breeding. Deratization in cattle breeding. Collective health management. Immunoprevention programs and schemes.
Gastrointestinal and pulmonary strobiliodias of large ruminants. Transmissible diseases in large ruminants - Babesiosis and Tyleroses. Large ruminant coccidiosis - emeiriosis, cryptosporidiosis, toxoplasmosis, sarcomocytosis, neoporosis.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Diploma work

Department "Obstetrics, reproduction and reproductive disorders"

Course for postgraduate education: **„Small ruminant reproduction"** long-term, individual specialization, consultations, auditory and out of auditory self-preparation.
Course information: The course is intended for veterinary surgeons.
Duration eighteen months. One hundred and forty hours self-preparation and One hundred and sixty hours consultations, auditory and out of auditory activities. Lectures, consultations and practical training are carried out in the seminar hall, manipulation room and laboratories located at Division of Reproduction and Control of the Animal Reproductive Health, Faculty of Veterinary Medicine, Trakia University.
Learner numbers – individual specialization one learner
Tutor profile: The course is conducted by one habilitated lecturer and two non-habilitated PhD lecturers.
Course description: This course provides information on the following topics:
Physiological bases of reproduction. Sexual cycle and factors affecting the estrous cyclicity. Methods for estrus induction and synchronization. Methods for semen collection, evaluation, handling, storage and transport. Method for pregnancy diagnosis. Parturition and lactation and cares for newborns. Dystocia and for obstetrical help performance. Pathology of reproduction and udder diseases in small ruminants. During the specialization the learners increase their practical skills for management of small ruminant reproduction, estrus synchronization, semen evaluation and handling, artificial insemination, pregnancy diagnosis,

obstetrical help performance, treatment of the most important diseases of the reproductive system and udder in small ruminants.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Graduation work (diploma)

Department ”Veterinary Microbiology, Infectious and Parasitic Diseases”

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization);
Poultry Diseases; long-term, individual specialization
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
This postgraduate qualification is intended for laboratory veterinarians involved in the diagnosis of infectious poultry diseases and for veterinarians working at the poultry farms in Republic of Bulgaria. The lecture course includes total 145 hours for self-preparation, respectively 12 hours of clinical anatomy of birds, 15 hours of non- infectious poultry diseases and toxicology, 32 hours of bacterial poultry diseases, 36 of viral infections in birds, 20 hours of parasitic poultry diseases, 10 hours of regulatory framework for the control of avian diseases. The total 150 hours for consultations, respectively 12 hours of clinical anatomy of birds, 15 hours of non- infectious poultry diseases and toxicology, 32 hours of bacterial poultry diseases, 31 hours of viral infections in birds, 20 hours of parasitic poultry diseases, 15 hours of regulatory framework for the control of avian diseases, and 25 hours diploma project consultations. Each of the lecture courses ends with a theoretical exam.
Tutor profile: (number of teachers, habilitated, not habilitated)
1. Prof. Mihni Lyutskanov DSci
2. Prof. Rumen Binev PhD
3. Prof. Ivan Dinev DSci
4. Assoc. Prof. Petar Prelezov PhD
5. Assoc. Prof. Gergana Nikolova PhD
Course description: The emphasis in the program is on the diagnostic methods in epidemiology, bacteriology, virology of poultry diseases. The program contains lectures that familiarize learners with the diagnostic methods of most important infectious and parasitic diseases in avian, respectively tuberculosis, salmonellosis, mycoplasmal infections, streptococcal infections, mycoses, infectious bursitis,

influenza, pox-diphtheria infection, borreliosis poultry infections, coccidiosis and etc . The emphasis in the program is too on the normative acts regulating the prevention and control of infectious diseases in avian, in particular the state regulatory policy for the prevention of avian diseases in industrial poultry farming.
Learning outcomes: Learners, after completing the program should be able to: organize and control preventative measures in relation to infectious, parasitic and non- infectious diseases in avian production.
Assessment method: Diploma work covering the information obtained during the lectures and practical training.

Department ”Veterinary Microbiology, Infectious and Parasitic Diseases”

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization);
Swine Diseases; long-term, individual specialization
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
This postgraduate qualification is intended for laboratory veterinarians involved in the diagnosis of infectious swine diseases and for veterinarians working at the swine farms in Republic of Bulgaria. The lecture course includes total 145 hours for self-preparation, respectively 20 hours of non-infections swine diseases and toxicology, 10 hours of epidemiological surveillance in pig production, 40 hours of bacterial swine diseases, 20 hours of viral swine infections, 15 hours of parasitic swine diseases, 20 hours of reproductive swine diseases, 20 hours of pathological diagnosis. The total 160 hours for consultations, respectively 20 hours of non-infections swine diseases and toxicology, 10 hours of epidemiological surveillance in pig production, 35 hours of bacterial swine diseases, 20 hours of viral infections in pigs, 15 hours of parasitic swine diseases, 15 hours of reproductive swine diseases, 20 hours of pathological diagnosis and 25 hours diploma project consultations. Each of the lecture courses ends with a theoretical exam.
Tutor profile: (number of teachers, habilitated, not habilitated)
1. Prof. Mihni Lyutskanov DSci
2. Prof. Rumen Binev PhD
3. Prof. Ivan Dinev DSci

4. Assoc. Prof. Petar Prelezov PhD

Course description: The emphasis in the program is on the diagnostic methods in epidemiology, bacteriology, virology of swine diseases. The program contains lectures that familiarize learners with the diagnostic methods of most important infectious and parasitic diseases in pigs, respectively tuberculosis, brucellosis, salmonellosis, mycoplasmal infections, streptococcal infections, actinobacillary pleuropneumonia, dysentery and colonic spirochetosis, proliferative enteropathy, staphylococcal infections, classical swine fever and African swine fever, PRRS infection, foot-and-mouth disease, Aujeszky's disease and rabies, poxvirus infection, swine vesicular disease, coccidiosis, trichinellosis, ascaridosis, trichurosis and etc . The emphasis in the program is too on the biosecurity programs in pig production, risk analysis and management in pig production, screening and monitoring in pig production.

Learning outcomes: Learners, after completing the program should be able to: organize and control preventative measures in relation to infectious, parasitic and non- infectious diseases in pig production.

Assessment method: Diploma work covering the information obtained during the lectures and practical training.

Department Veterinary Microbiology, Infectious and Parasitic diseases;
Parasitology Unit

Course for postgraduate education: **"Parasitic Diseases in small animals (dogs and cats)"** – long term individual specialization

Course information: This postgraduate course is intended to veterinarians from entire country.

The duration of the course – 18 months - lectures and practical exercises
Individual

Tutor profile: 3 habilitated and 2 not-habilitated persons

Course description:

Course units	Total hours	Self-learning hours	Consultations and practice hours	Consultant lecturer
1. Helminthoses in dogs and cats: Laboratory methods of diagnosis; Trematodoses – Opisthorchosis; Cestodoses –Taeniidoses, Dipylidiosis,	85	50	35	Assoc. prof. Zvezdelina Kirkova, Petar Iliev

Mesocestoidosis, Diphyllobothriosis; Nematodoses - Angiostrongylosis, Ancylostomatidoses, Toxocarosis, Toxascaridosis, Trichurosis, Trichinellosis, Capillariosis, and Dirofilariosis; Acanthocephaloses. Control of the diseases				
2. Protozoan diseases in dogs and cats: Laboratory methods of diagnosis of protozooses; Leishmaniosis, Giardiosis, Amoebiosis, Isosporosis, Toxoplasmosis, Sarcocystosis, Neosporosis, Cryptosporidiosis, Babesiosis, Hepatozoonosis. Control of the diseases.	60	30	30	Assoc. prof. Andrey Ivanov
3. Arachnoentomoses in dogs and cats: Laboratory methods of diagnosis of ectoparasitoses; Identification of arthropods; Scab – Sarcoptosis, Notoedrosis, Otodectosis, Demodicosis, Cheyletiellosis; Mallophagoses and Siphunculatosis; Siphonaptersis; Myasis; Linguatulosis. Control of the diseases.	60	30	30	Assoc. prof. Petyo Prelesov, Nikola Nizamov
Consultation on the scientific report	15		15	Assoc. prof. A.Ivanov,

				P.Prelesov, Z.Kirkova
Hours of specialization in total	220	110	110	

Learning outcomes: Veterinarians will acquire additional theoretical knowledge about the most important diseases of cats and dogs. They will learn in details routine and contemporary practical methods and techniques for the diagnosis and differential diagnosis of parasitic diseases, the treatment of infected animals and the organization of effective programs for the prevention of animals and humans from parasite invasions and the protection of the environment from biological pollution.
Assessment method: written and practical work – Assoc. prof. Andrey Ivanov, Assoc. prof. Petyo Prelesov, Assoc. prof. Zvezdelina Kirkova.
This long term course for postgraduate education finishes with presentation of scientific report to a scientific jury.

Department ”Veterinary Microbiology, Infectious and Parasitic Diseases”

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization);
Veterinary Bacteriology and Microbiological Diagnostic; long term, individual specialization
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
This postgraduate qualification is intended for laboratory veterinarians involved in the diagnosis of bacterial infections in farm animals. The lecture course includes 28 hours of general microbiology, 43 hours of special bacteriology, 30 hours of clinical bacteriology, 4 hours of microbiological diagnostic, 24 hours of bacterial swine diseases, 16 hours of bacterial poultry diseases, 26 hours of bacterial diseases of ruminants, total- 171 hours. The practical exercises include 14 hours of general microbiology, 26 hours of special bacteriology, 23 hours of clinical bacteriology, 20 hours of microbiological diagnostic, 16 hours of bacterial swine diseases, 16 hours of bacterial poultry diseases, 18 hours of bacterial diseases of ruminants, diploma project consultations 15 hours, total hours-150.

Each of the lecture courses ends with a theoretical exam and the microbiological diagnostics course in addition to a theoretical exam includes a practical exam.
Tutor profile: (number of teachers, habilitated, not habilitated)
1. Prof. Mihni Lyutskanov DSci
2. Assoc. Prof. Valentina Urumova DSci
Course description: The emphasis in the program is on the microbiological diagnosis of bacterial infections in farm animals, respectively the knowledge in the pre-analytic phase and post-analytic phase for diagnostic procedure of bacterial infections in animals, cost-effective approaches in the pre-analytic phase, and the knowledge in infectious disease, opportunistic infection, nosocomial infection, subclinical infection, and relationships of infectious agents and their hosts at the cellular level. The program contains lectures that familiarize learners with the diagnosis of bacterial infections in respiratory system, gastrointestinal and intra- abdominal infections, integumentary infections, cardiovascular infections, and musculoskeletal infections in farm animals. The emphasis in the program is too on the antimicrobial agents and susceptibility testing, mechanisms of resistance to antimicrobial agents and the problems related to the empirical therapy of bacterial infections in farm animals.
Learning outcomes: Learners, after completing the program should be able to: collect the clinical specimens for bacterial examination from different places in animal organism, according of requirements for preservation and transportation of samples for isolation procedures and clinical observations, will be able to perform routine diagnostic algorithms in the laboratory related to the diagnosis of the most important pathogenic bacterial species for the animals and also make analyses of results in bacteriological lab in association of identified antimicrobial therapy.
Assessment method: Diploma work covering the information obtained during the lectures and practical training.

Department: Internal Diseases

Course for postgraduate education: **„Clinical-laboratory diagnostics in animals“**
(long-term, individual specialization).
Course information: The course is intended to veterinarians.
Duration of the course: 18 months.

Lectures and practical exercises: Total 420 hours (including counseling, lectures, practical exercises and self-training).
Venue for the course: Trakia University, Faculty of Veterinary Medicine, Department of Internal diseases and Laboratory diagnostic center at the FVM.
Numbers of learner: 1 member.
Tutor profile:
1. Assis. Prof. Vania Marutsova, DVM – Scientific supervisor
2. Prof. Rumen Binev, DVM
3. Assoc. Prof. Dian Kanakov, DVM
Course description: During the post-graduate training, the residents will become acquainted with the normative legal framework of the veterinary work related to the organization and management of laboratory activities in Bulgaria. They will familiarize themselves with the basic rules and techniques of work in a clinical laboratory, with the methods of obtaining, processing and analyzing biological samples, and using the results obtained in the diagnostics of various diseases.
Learning outcomes: As a result of the long-term training, the residents will acquire skills in clinical and laboratory diagnostics: obtaining material for physical and chemical analysis (blood, urine, rumen content); skills to work with modern laboratory equipment; (red, white and differential blood counts, glucose, ketone bodies, cholesterol, triglycerides, total protein and protein fractions, urea, creatinine, calcium, phosphorus, magnesium, enzymes, etc.) and interpretation of the results obtained with the final diagnosis of various diseases in domestic animals.
Assessment method: scientific report or written test

Department of Veterinary Surgery

Course for postgraduate education:
Veterinary surgery: current problems in dogs and cats (long-term individual specialization)
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
The course is targeted at veterinary practitioners. Its duration is 18 months (130 theoretical hours and self-study; 100 hours practical training and consultations). The course is carried out in the Small Animal Clinic of the FVMSZ. The training is individual.

Tutor profile: (number of teachers, habilitated, not habilitated)
5 habilitated; 5 non-habilitated instructors
Course description:
During the trainings, participants learn all methods of examination of surgical patients (clinical, radiological, functional). They solve specific problems and participate actively in the daily clinical work and all soft and bone surgical interventions. By the end of the specialisation, participants are allowed to perform surgeries at their own. A special attention is paid on mastering skills related to general anaesthesia of patients. Ophthalmology and dentistry are independent parts of the training, which is carried out on selected patients.
Learning outcomes:
After the completion of the course, participants should have mastered their skills in small animal surgery and obtain a diploma for completion of long-term specialisation in canine and feline surgery
Assessment method:
During the specialisation, participants are required to pass six written examinations corresponding to the following modules: 1) soft tissue surgery in small animals; 2) orthopaedic surgery in small animals; 3) anaesthesiology and critical care; 4) diagnostic X-ray imaging of small animals; 5) small animal ophthalmology and 6) small animal dentistry.
The specialisation ends with defense of a diploma thesis or state examination.

Department Veterinary Microbiology, Infectious and Parasitic Diseases
Course for postgraduate education: (title, definition (long-term/short-term, individual/group specialization)
„Dog, cat and horse infectious diseases“ long-term, individual specialization
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
For Veterinarians; duration- 1.5 year, 73 hours lecture and 127 practice; venue- Section Preventive medicine and Infectious diseases; learner numbers – 1-10
Tutor profile: (number of teachers, habilitated, not habilitated)
One teacher – prof. Ilia Tsachev, DSc
Course description: Presented is the latest data on

- 10 viral diseases, 8 bacterial diseases, 4 other infections and co-infections, 40 clinical canine cases;
- 7 viral diseases, 5 bacterial diseases, 10 clinical cat cases;
- 10 viral diseases, 6 bacterial diseases, 4 other infections and co-infections, 8 clinical equine cases;

Empasis is plased on the diagnosis, treatment, prevention, control and public health.

Learning outcomes:

Veterinarians, after completing the specialization should be able to appreciate the solutions of all canine, feline and equine infectious diseases.

Assessment method:

- Four writen exams.
- A Thesis defense.

SHORT-TERM (UP TO 6 MONTHS) CONTINUING EDUCATION COURSES

DEPARTMENT "Veterinary microbiology, infectious and parasitic diseases"

Post-graduate training course: **"Beekeeper - kontroller"**

Short-term individual and group specialization

Course Information: The course is for 2 days and is intended for training experienced practitioners of beekeepers participating in the mandatory annual preventive examinations of bee families in Bulgaria. The curriculum includes a total of 16 lessons, of which 14 hours of lectures and 2 hours of practical exercises. The lectures and practical exercises are held at the faculty's educational base.

Teacher profile: assoc. prof. Parvan Parvanov PhD

Course description: The curriculum includes information on: - Good apiculture practices to prevent and spread bee diseases; - The clinical manifestation of current contagious bee diseases and bee brood; - Organizing and conducting prophylactic examinations of bee colonies.

Learning outcomes: Beekeepers receive the necessary knowledge of "Beekeeper-kontroller".

Assessment method: test

DEPARTMENT "Veterinary microbiology, infectious and parasitic diseases"
Post-graduate training course: **"Bee-keeping and bee health"**
Short-term individual and group specialization

Course Information: The course lasts 4 days and is intended for training of practicing beekeepers. The curriculum includes a total of 32 teaching hours. The lectures and practical exercises are held at the faculty's educational base.

Teacher profile: assoc. prof. Parvan Parvanov PhD

Course description: The curriculum includes information on: Good Beekeeping Practices for Healthy and Productive Bee Families; Prevention and control of infectious and parasitic diseases of bees; Non-Infectious Diseases and Toxicosis - Prevention and Control; Veterinary hygienic and humane requirements for breeding bees and working with bee families; Disinfection and deratization in beekeeping; Organization of health care in beekeeping;

Learning outcomes: Beekeepers receive additional knowledge on the health of bees and bee families.

Assessment method: test

DEPARTMENT "Veterinary microbiology, infectious and parasitic diseases"
Post-graduate training course: **"Biological Beekeeping and Bee Health"**
Short-term individual and group specialization

Course Information: The course lasts 4 days and is intended for training experienced beekeepers from all over the country. The curriculum includes a total of 32 teaching hours. The lectures and practical exercises are held at the faculty's educational base.

Teacher profile: assoc. prof. Parvan Parvanov PhD

Course description: The curriculum includes information about: Biological beekeeping - regulations and requirements; Good Beekeeping Practices in Organic Beekeeping for Healthy and Productive Bee Families; Prevention and control of infectious and parasitic diseases in biological apiaries; Non-Communicable Diseases and Toxicosis - Prevention and Control; Veterinary hygienic and humane requirements for breeding bees and working with bee

families; Disinfection and deratization in organic beekeeping; Organization of health care in beekeeping.

Learning outcomes: Beekeepers receive additional knowledge on bee health and bee health in organic apiaries.

Assessment method: test

Department

Pharmacology, Physiology of Animals and Physiological Chemistry

Course for postgraduate education:

Pharmacokinetics, design of pharmacokinetic studies and biostatistics of data from pharmacokinetic studies (short-term, individual/group specialization)

Course information: The postgraduate course is intended to veterinary practitioners as well as veterinarians who work in institutions related to drug control and legislation. The duration of the course is 18 hours, in 3 days. It includes lectures, discussions of examples and work with specialized software for pharmacokinetic investigations (Pharsight). The venue of course is at Trakia University, in the seminar rooms of the Department. The specialization can be performed as individual or group course (n=6).

Tutor profile: One habilitated lecturer (Professor) is involved in the teaching and practical pharmacokinetic solutions. The lecturer has significant experience in pharmacokinetic studies.

Course description: The aim of the course is to acquire skills on design of pharmacokinetic studies, statistical evaluation of pharmacokinetic data and application of pharmacokinetics to establish a schedule of dosing regimen. The discussed topics are physiological basis of pharmacokinetics, transmembrane transport, absorption of drugs, distribution of drugs, metabolism (biotransformation) and excretion; pharmacokinetic modeling, including non-compartmental analysis and curve fitting; clearance and its application; volume of distribution; elimination half-life; bioavailability; and bioequivalence.

Learning outcomes: At the end of the course the participants have contemporary knowledge about the main terms and principles in pharmacokinetics. They are able to understand the meaning and relation between pharmacokinetic parameters.

Special attention is paid on design of pharmacokinetic studies, working with the data and their modelling with specialized pharmacokinetic software. The participants are able to use the calculated parameters for design of dosing regimens.

Assessment method: The specialization includes test at the end of the course.

Department Hygiene, Technology and Control of Foodstuffs

"Animal protection, safe and humane transport of animals"
Short-term, group

Course is intended for drivers of vehicles for transportation of live animals. Duration is 2 days. Lectures and seminars are 16 hours.
Venue is laboratories of the Department of Hygiene, Technology and Control of Foodstuffs.
Teachers – 3 habilitated and 2 non habilitated (from Faculty of Veterinary Medicine and Agrarian Faculty).
Course description: The course gives knowledge about animals welfare and needs of animals during transportation. Basic requirements of EU for animal handling and protection (regulation 1/2005 г. from 22.12.2004 on the protection of animals during transport and related operations).
Learning outcomes: Drivers realize that they are responsible for safe journey of animals. They can do basic operations in case of emergency.
Assessment method: Test examination

Department Hygiene, Technology and Control of Foodstuffs

"Humane treatment and welfare of animals in slaughterhouses"
Short-term, group

Course is intended for operators in slaughterhouses perform killing of animals. Duration is 2 days. Lectures and seminars are 16 hours.
Venue is laboratories of the Department of Hygiene, Technology and Control of Foodstuffs.
Teachers – 3 habilitated and 2 non habilitated (from Faculty of Veterinary Medicine and Agrarian Faculty).

Course description: The course gives knowledge about animal's welfare and needs of animals during stunning and bleeding. Requirements for stunning, ways of stunning of different animals. Basic requirements of EU for animal handling and protection - Council Regulation (EC) No 1099/2009 of 24 September 2009 on the protection of animals at the time of killing
Learning outcomes: Operators realize that they are responsible for safe stunning and killing of animals. They are familiar with requirements and practical doing of operations.
Assessment method: Test examination

Department Hygiene, Technology and Control of Foodstuffs

Food safety systems
Short-term, group

Course is intended for operators and executives in food producing enterprises. Duration 2 days. Lectures and seminars are 16 hours.
Venue is Department of Hygiene, Technology and Control of Foodstuffs.
Teachers – 4 habilitated.
Course description: Course gives detailed knowledge of Food Safety and risks in food chain. They receive information about setting up of GMP (good manufacturing practices) as prerequisite program. Students learn way of making HACCP plan and basics of auditing.
Learning outcomes: The students can be part of HACCP team and make such plan of enterprise.
Assessment method: Test examination

Department of "General and Clinical Pathology"
Unit of "Functional Pathology and Immunology"

Course for postgraduate education:
„Humane treatment and welfare of animals used in experimentations" is a short-term course for postgraduate education. It is held as an individual or group specialization.

Course information:
The course is intended to university teachers, scientists, researchers and other persons involved in animal experimentation. The course includes 8 hours of

lectures which are held at the veterinary faculty of Trakia University. The course started in 2011. A total of 126 participants have successfully completed the course until the end of 2018.
Tutor profile: two habilitated lecturers.
Course description:
The lecture course is based on the following topics:
I. Contemporary legislation on welfare and protection of experimental animals (Veterinary practice act – 2005; Directive 20 – 2012; Directive 2010/63/EU).
II. Ethical standards in animal experimentation (organization and management of animal experiments; ethical aspects; stress, pain and suffering of experimental animals; severity classification of experimental procedures; alternative methods).
III. Welfare and protection of animals (mice, rats, guinea pigs and rabbits) used for educational purposes and scientific research: biology, care and housing of experimental animals; requirements for lab animal facilities; handling and experimental procedures; anesthesia, analgesia and euthanasia.
Learning outcomes:
Learners acquire knowledge in various aspects – legislation; requirements for research facilities; biology, care and housing of experimental animals; handling, experimental procedures, analgesia, anesthesia and euthanasia of most commonly used experimental animals (mice, rats, guinea pigs and rabbits).
Assessment method: multiple-choice test.

Department of “General and Clinical Pathology”
Unit of “Functional Pathology and Immunology”
Department of “General Livestock Breeding”
Unit of "Veterinary Hygiene, Ethology and Animal Protection"

Course for postgraduate education:
“Humane treatment and welfare of animals used in experimentations” is a short-term course for postgraduate education. It is held as an individual or group specialization.

Course information:
The course is intended to owners and workers in pet shops, kennels, animal hotels and shelters. The course has duration of two days (16 hours of lectures). The lectures are held at the veterinary faculty of Trakia University. The course started

in 2008. A total of 261 participants have successfully completed the course until the end of 2018.
Tutor profile: three habilitated lecturers.
Course description:
The lecture course is based on the following topics:
I. Contemporary legislation on animal welfare and protection (Veterinary practice act – 2005; Protection of animals act – 2008; Directive 41 – 2008).
II. Welfare and protection of animals bred in pet shops and kennels – requirements for housing, care, nutrition and breeding of guinea pigs, hamsters, pet rabbits, mice, rats, pet birds and fish.
III. Welfare and protection of animals kept animal hotels and shelters.
IV. Health care of pet animals bred in pet shops and kennels (prophylaxis of diseases caused by poor nutrition and improper housing environment; prophylaxis of bacterial, viral and parasitic diseases; prophylaxis of traumatic diseases).
Learning outcomes:
Participants acquire scientific knowledge in different areas of animal welfare and protection of animals bred in pet shops, kennels, animal hotels and shelters (legislation, veterinary hygiene, health care and breeding of pet animals, prophylaxis of diseases).
Assessment method: multiple-choice test.

Department of Veterinary Surgery

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization)
"Anaesthesia in dogs and cats" - short-term individual specialization

Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
The course is intended for veterinary practitioners in small animal practices who want to improve their knowledge and skills performing general or local anaesthesia. The postgraduate education lasts 1 month and includes 176 hours practical exercises in the University Small Animal Clinic. Every participant takes part in anaesthesia induction, maintenance, and recovery of real patients of the Clinic together with the anaesthetist on duty and/or lecturer in anaesthesiology.

learner number – 5
Tutor profile: (number of teachers, habilitated, not habilitated)
4 teachers – one associate professor in anaesthesiology and three anaesthetists working at the FVMSZ clinic.
Course description:
The participants learns how to use and combine individual anaesthetic agents in different diseases; how to assess the risk; how to fil the documentation; how to use and maintain the anaesthesiological equipment; how to estimate the anaesthetic depth and the vital parameters during anaesthesia and how to maintain the anaesthesia; some complications and pain management.
Learning outcomes:
The education is considered successful if the student feels more confident in its practice after finishing the course.

Assessment method:
Written exam

Department of Veterinary Surgery

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization)
"Veterinary ophthalmology" - short-term individual specialization.
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
The course is intended for veterinary practitioners having interest in ophthalmology of different animal species. The participant, supervised by the lecturer in ophthalmology, takes 115 hours practical exercises in physical examination, medical or surgical treatment of patients suffering from ophthalmic diseases brought to the University clinic. The discussions regarding differential diagnoses and species differences, as well as benefits and drawbacks of the treatment methods are also provided.
learner number – 3
Tutor profile: (number of teachers, habilitated, not habilitated)
6 teachers – four associate professors in ophthalmology, 2 assistant-professors
Course description:
The participant learns the standard and advanced methods of diagnostics in ophthalmology; the clinical manifestation of diseases affecting the anterior and

posterior eye structures; some elementary treatment manipulations and modern surgical techniques.
Learning outcomes:
The education is considered successful if the student feels more confident in its practice after finishing the course.
Assessment method:
Written exam

Department General and clinical pathology

Course for postgraduate education:
Short-term postgraduate individual and group course **"Incineration affair"**
Course information:
-This postgraduate course is intended to veterinarian working in "Incineration affair"
-Duration of course is 2 days
-The course is consisted of 16 hours lectures
-Venue: Faculty of Veterinary Medicine at the Thracian University
-Learner number: 1
Tutor profile:
Number of teachers: 2 habilitated teachers
Course description:
The course is consisted of two modules. The first module is dealing with the functions, objectives and tasks of incinerators, e.g. ways of destruction or utilization of carcasses, purpose, tasks and devices of incinerators, the ways of collection and veterinary treatment of the raw material, in addition to the way of selection of the correct location for incinerators. The second module is dealing with various technologies of raw material processing, production, laboratory research, waste water treatment, labor protection, organization and management of the incinerators, e.g. dry indirect technology, wet direct technology and semi-wet technology of processing of the raw material and occupational safety of the workers in incinerators.
Learning outcomes:
Receiving some knowledge about the functions, purpose, objectives, and tasks of incinerators, removal, destruction and utilization of animal carcasses, selection of incinerators' location, devices of incinerator, collection of the raw material for incinerators, veterinary treatment of the raw material. Some

knowledge will be received about different technologies of raw material processing such as dry indirect technology, wet direct technology or semi-wet technology, a possible production of incinerators, compulsory laboratory research and tests in incinerators, waste water treatment and labor protection in incinerators, and organization and management of the incinerators

Assessment method:

Final exam

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: **„Artificial insemination in large ruminants“**, short-term, individual/group specialization.

Course information: The course is intended for veterinary surgeons, veterinary technicians, animal science people and farmers. Duration of the course is four working days (thirty hours). Lectures: six hours and practical training twenty-four hours. The practical training performance is at the cattle farm of the University Training and Experimental Center, Trakia University.
Each group specialization includes six to ten students.
Tutor profile: The course is conducted by one habilitated lecturer and three non-habilitated lecturers.
Course description: This course provides knowledge in the following topics: Anatomy and physiology of female ~~(genitalia)~~ genital system. Sexual cycle. Methods for oestrus detection. Methods of the control of the sexual cycle. Organization of artificial insemination on the farm level. The exercises provide practical skills for: Examination of the female genital organs, Bimanual catheterization of the cervix, Storage, transport and thawing of frozen semen in straw, Technique for semen deposition for the artificial insemination purpose
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Test

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: **“Ultrasound application in large ruminant reproduction”**, short-term, individual specialization.

Course information: The course is intended for veterinary surgeons. Duration two working days, ten hours. Lectures - two hours and eight-four hours of practical classes. The practical lessons are held at the cow farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:
principles of ultrasound examination. Diagnosis of early pregnancy.Diagnosis of the formation in the ovaries.

Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Test

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: **“Artificial insemination in mares”**, short-term, individual specialization.
Course information: The course is intended for veterinary surgeons. Duration four working days, thirty hours. Lectures - six hours and twenty-four hours of practical classes. The practical lessons are held at the horse farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:
Anatomy of the genital organs in mares and stallions. Sex cycle. Hormones of the sex sphere. Methods for the detection of oestrus in mares. Methods of guiding the sex cycle. Reproductive study of mares. Establishing a favorable moment for artificial insemination. Receiving, judging and dilution of semen fluid from a stallion.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Test

Department “Obstetrics, reproduction and reproductive disorders”

Courses for postgraduate education: **„Ultrasound of genitals in small ruminants“**, short-term, individual and group specialization.
Course information: The course is intended for veterinary surgeons, veterinary technicians, animal science people and farmers. Duration two working days, sixteen hours. Five hours lectures, ten hours practical training and one hour writing exam. Lectures are held at the seminar hall located in Division of Reproduction and Control of the Animal Reproductive Health, Faculty of Veterinary Medicine, Trakia University. The practical training is carries out at sheep farm of the University Training and Experimental Center.
Learner numbers – individual specialization one learner; group specialization - six learners.

Tutor profile: The course is conducted by one habilitated lecturer and two non-habilitated lecturers.
Course description: This course provides knowledge on the following topics: Clinical and morphological features of genital system and sexual cycle in sheep and goats; Pregnancy and embryofoetal development; Basic principles of echography; Echographic equipment and different approaches for examination in small ruminants. During the exercises the learners gain or increase their practical skills for echographic examination of the uterus and ovaries, echographic pregnancy diagnosis, determination of number and sex of the fetuses and echographic diagnosis of pathology of the genital organs and pregnancy.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Writing exam

Department "Obstetrics, reproduction and reproductive disorders"

Courses for postgraduate education: **„Ultrasound application in swine reproduction"**, short-term, individual specialization.
Course information: The course is intended for veterinary surgeons, veterinary technicians, animal science people and farmers. Duration two working days, sixteen hours. Five hours lectures, ten hours practical training and one hour writing exam. Lectures are held at the seminar hall located in Division of Reproduction and Control of the Animal Reproductive Health, Faculty of Veterinary Medicine, Trakia University. The practical training is carries out at private pig farm.
Learner numbers - individual specialization one learner
Tutor profile: The courses is conducted by one habilitated lecturer and one non-habilitated lecturer.
Course description: This course provides knowledge on the following topics: Clinical and morphological features of genital system and sexual cycle in sows; Pregnancy and embryofoetal development; Basic principles of the echography; Echographic equipment and different approaches for examination in sows. During the exercises the learners gain or increase their practical skills for echographic examination of the uterus and ovaries, echographic pregnancy diagnosis, fetal nimber determination and echographic diagnosis of pathology of the genital organs and pregnancy.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Writing exam

Department “Obstetrics, reproduction and reproductive disorders”

Courses for postgraduate education: **„Artificial insemination in small ruminants“**, short-term, individual and group specialization.
Course information: The course is intended for veterinary surgeons, veterinary technicians, animal science people and farmers. Duration three working days, twenty-two hours. Six hours lectures, fifteen hours practical training and one hour writing exam. Lectures and laboratory training are held at the seminar hall located in Division of Reproduction and Control of the Animal Reproductive Health, Faculty of Veterinary Medicine, Trakia University. The practical training is carries out at sheep farm of the University Training and Experimental Center.
Learner numbers – individual specialization one learner; group specialization - six learners.
Tutor profile: The course is conducted by one habilitated lecturer and two non-habilitated lecturers.
Course description: This course provides knowledge on the following topics: Anatomy and physiology of the genital system in sheep and goats; Endocrine control and sexual cycle in small ruminants; Methods for estrus induction and synchronization during the breeding and non-breeding season in sheep and goats; Organization of the artificial insemination and preparation of male and female animal for breeding process. During the exercises the learners gain or increase their practical skills for estrus detection in sheep and goats, semen collection, evaluation, handling and storage and artificial insemination in sheep and goats.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Writing exam

Department “Obstetrics, reproduction and reproductive disorders”

Courses for postgraduate education: **„Artificial insemination in pigs“**, short-term, individual and group specialization.
Course information: The course is intended for veterinary surgeons, veterinary technicians, animal science people and farmers. Duration three working days, twenty-two hours. Six hours lectures, fifteen hours practical training and one hour writing exam. Lectures are held at the seminar hall located in Division of Reproduction and Control of the Animal Reproductive Health, Faculty of

Veterinary Medicine, Trakia University. The laboratory and practical exercises are carried out at private pig farm.
Learner numbers – individual specialization one learner; group specialization - six learners.
Tutor profile: The course is conducted by one habilitated lecturer and two non-habilitated lecturers.
Course description: This course provides knowledge on the following topics: Anatomy and physiology of the genital system in sow; Endocrine control and sexual cycle in sow; Methods for estrus induction and synchronization during in sow; Organization of the artificial insemination. During the exercises the learners gain or increase their practical skills for estrus detection in sow, semen collection, evaluation, handling and storage and artificial insemination in sows.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Writing exam

Department "Obstetrics, reproduction and reproductive disorders"

Courses for postgraduate education: **„Analysis and processing of semen for assisted reproduction in ruminants"**, short-term, individual specialization.
Course information: The course is intended for veterinary surgeons. Duration three working days, twenty-four hours. Ten hours lectures, twelve hours practical training and two hour writing exam. Lectures and practical training are carried out in the seminar hall, manipulation room and laboratory located at Division of Reproduction and Control of the Animal Reproductive Health, Faculty of Veterinary Medicine, Trakia University.
Learner numbers – individual specialization one learner
Tutor profile: The course is conducted by one habilitated lecturer and one non-habilitated lecturer.
Course description: This course provides knowledge on the following topics: Semen composition in farm animals; Biological and morphological features of the semen in different farm animals; Practical application of Assisted Reproductive Technologies (ART) in farm animals; Semen evaluation, handling, storage and transport for ART purpose; Semen sexing. During the exercises the learners increase their practical skills for semen evaluation and handling for different purpose - fresh diluted, chilled and frozen and practical training for semen cooling and freezing by different protocols and evaluation after thawing.

Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: Writing exam

Department ”Veterinary Microbiology, Infectious and Parasitic Diseases”

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization);
“Health problems of pregnancy, birth and post-natal period and diseases of newborn and adolescent calves”; group specialization/short-term
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
This postgraduate qualification is intended for veterinarians working at the dairy farms in Republic of Bulgaria. The lecture course includes total 16 hours for lectures and seminars, 2 hours for differential diagnosis of metabolic diseases in dairy cows, 2 hours for causes of pregnancy and embryonic death, 1 hour for traumas of the soft birth path, prophylaxis and healing, 2 hours for inflammatory processes in the uterus in the postpartum period, 2 hours for congenital and acquired anomalies and asphyxia in newborn calves, 1 hour for immune and immune protection of newborn calves, 3 hours for newborn diseases with diarrheal syndrome like coli infection, viral enteritis and their control, 2 hours for disinfection measures at the birth and rearing of newborn calves and 1 hour for discussion.
Tutor profile: (number of teachers, habilitated, not habilitated)
1. Prof. Mihni Lyutskanov DSci
2. Prof. Rumen Binev PhD
3. Prof. Nasko Vasilev PhD
4. Assoc. Prof. Plamen Georgiev PhD
5. Chief Assistant Georgi Zelev PhD
6. Assistant Plamen Marurzov
Course description: The emphasis in the program is on the diagnostic methods in epidemiology, bacteriology, virology of diseases in dairy cattle. The program contains lectures that familiarize learners with the diagnostic methods of most important infectious in newborn calves, metabolic diseases in dairy cows, inflammatory processes in the uterus in the postpartum period and immune

protection of newborn calves. The emphasis in the program is too on the biosecurity measures in cattle-breeding farms.
Learning outcomes: Learners, after completing the program should be able to: organize and control preventative measures in relation to infectious and non-infectious diseases in dairy farms.
Assessment method: Discussion covering the information obtained during the lectures and practical training.

Department Veterinary Microbiology, Infectious and Parasitic diseases;
Parasitology Unit

Course for postgraduate education: **"Parasitic Diseases in birds"** – short term group and individual specialization.
Course information: This postgraduate course is intended to veterinarians from entire country.
The duration of the course – 16 hours lectures and practical exercises
Group – 7 persons
Individual
Tutor profile: 3 associated professors
Course description:

Course units	Lectures	Lecturer
1. Helminthoses in birds: diagnosis and control of cestodoses; diagnosis and control of Ascaridioses, Heterakidosis and Capillarioses.	5 h	Assoc. prof. Zvezdelina Kirkova
2. Protozoan diseases in birds: diagnosis and control of Trichomonoses, Histomonosis, Hexamitosis and Eimerioses.	5 h	Assoc. prof. Andrey Ivanov
3. Arachnoentomoses in birds: identification and control of Argasidae and Dermanissydae mites; diagnosis and control of scab and Mallophagoses.	5 h	Assoc. prof. Petyo Prelesov

Learning outcomes: Veterinarians will acquire additional theoretical knowledge about the most important diseases of birds. They will learn in details routine and contemporary practical methods and techniques for the diagnosis and differential diagnosis of parasitic diseases, the treatment of infected animals and the organization of effective programs for the prevention of animals and humans from parasite invasions and the protection of the environment from biological pollution.

Assessment method: written and conversation – Assoc. prof. Andrey Ivanov, Assoc. prof. Petyo Prelesov, Assoc. prof. Zvezdelina Kirkova

Department Veterinary Microbiology, Infectious and Parasitic diseases;
Parasitology Unit

Course for postgraduate education: **"Parasitic Diseases in Animals – modern diagnostic methods"** – short term group and individual specialization

Course information: This postgraduate course is intended to veterinarians from entire country.

The duration of the course – 16 hours lectures and practical exercises

Group – 7 persons

Individual

Tutor profile: 3 associated professors

Course description:

Course units	Lectures and practical works	Lecturer
1. Diagnostic methods of helminthoses in animals: diagnosis of trematodoses, acanthocephaloses, cestodoses and nematodoses – morphology of eggs, larvae and proglottids.	5 h	Assoc. prof. Zvezdelina Kirkova
2. Diagnostic methods of protozooses in animals: diagnosis of coccidiosis, diseases from flagellates and piroplasmidoses.	5 h	Assoc. prof. Andrey Ivanov
3. Diagnostic methods of arachnoentomoses in animals: differentiation of ticks; diagnosis of scab and pseudoscab; larval enthomoses; insects permanent and temporary ectoparsites.	5 h	Assoc. prof. Petyo Prelesov

Learning outcomes: Veterinarians will acquire additional theoretical and practical knowledge about the modern diagnostic methods in parasitology. They will learn in details routine and contemporary methods and techniques for the diagnosis and differential diagnosis of parasitic diseases.

Assessment method: written and practical examination – Assoc. prof. Andrey Ivanov, Assoc. prof. Petyo Prelesov, Assoc. prof. Zvezdelina Kirkova

Department Veterinary Microbiology, Infectious and Parasitic diseases;
Parasitology Unit

Course for postgraduate education: **"Parasitic Diseases in small animals (dogs and cats)"** – short term group and individual specialization

Course information: This postgraduate course is intended to veterinarians from entire country.

The duration of the course – 16 hours lectures and practical exercises

Group – 7 persons

Individual

Tutor profile: 3 associated professors

Course description:

Course units	Lectures	Lecturer
1. Helminthoses in dogs and cats: diagnosis and control of cestodoses; diagnosis and control of Angiostrongylosis, Ancylostomatidoses, Toxocarosis, Toxascaridosis, Trichurosis, Capillariosis, Spirocercosis and filariidoses.	5 h	Assoc. prof. Zvezdelina Kirkova
2. Protozoan diseases in dogs and cats: diagnosis and control of Giardiosis, Amoebiosis, Isosporosis, Toxoplasmosis, Sarcocystosis, Neosporosis, Cryptosporidiosis, Babesiosis, Hepatozoonosis.	5 h	Assoc. prof. Andrey Ivanov
3. Arachnoentomoses in dogs and cats: diagnosis and control of scab, Mallophagosis, Siphunculatosis, Siphonapterosis and myasis.	5 h	Assoc. prof. Petyo Prelesov

Learning outcomes: Veterinarians will acquire additional theoretical knowledge about the most common diseases of cats and dogs). They will learn in details routine and contemporary practical methods and techniques for the diagnosis and differential diagnosis of parasitic diseases, the treatment of infected animals and the organization of effective programs for the prevention of animals and humans from parasite invasions and the protection of the environment from biological pollution.

Assessment method: written and conversation – Assoc. prof. Andrey Ivanov, Assoc. prof. Petyo Prelesov, Assoc. prof. Zvezdelina Kirkova

Department Hygiene, Technology and Control of Food Products of Animal Origin, Veterinary Legislation and Management

Course for postgraduate education: **"Management and legal issues of veterinary services"**
Short-term postgraduate course – duration 1 month.
This course is intended both for individual and group specialization (6 applicants are needed for a group course).
Course information:
The postgraduate course is intended to veterinarians from the private veterinary sector, both employers and employees. The course is also suitable for other professionals (for example animal husbandry specialists, veterinary technicians) who want to gain knowledge on the management of various activities that take place within animal holdings/farms – business plan development, communication skills, marketing and advertising.
The duration of this short-term course is one month.
Totally, the in-class activities are carried out for 80 hours, divided as follows:
- lectures – 41 hours;
- seminar lessons – 38.

The lectures and seminar lessons take place at the lecture halls of the Veterinary Legislation and Management Unit at the Faculty of Veterinary Medicine, Trakia University – Stara Zagora.
The number of the course participants vary: from 1 (for individual specialization), to at least 6 or more (for group specialization) applicants who want to enroll (at the Faculty of Veterinary Medicine there are lecture halls for more than 160 students).
Tutor profile:
Two lecturers are in charge of this short-term course:

- Assoc. Prof. Dr. Gergana Nikolova Balieva, PhD – habilitated;
- Assist. Prof. Dr. Laska Miteva Kostadinova – not habilitated.

Course description:

The course covers the following topics, relevant to the management and legislative framework of veterinary service:

- Legal regulation of the veterinary activities in the Republic of Bulgaria and the European Union.
- Veterinary management – specific features, importance, management decision.
- Business plan development.
- Communication and communicative relations within the veterinary activities.
- Veterinary marketing – features, importance, factors.
- Management and marketing of the small enterprise (veterinary practice).
- Advertising in the veterinary business.
- Risk factors in the veterinary management.
- Special features in the supply and demand of veterinary services.

Learning outcomes:

At the successful completion of the course the students will acquire the following knowledge and skills:

- Theoretical - knowledge and skills to properly interpret and analyze the legal regulations of the veterinary activities from the European and national legislative framework on veterinary services. Students gain theoretical knowledge in the field of management and marketing in the private veterinary sector. They can define and discuss on methods and principles of organization and management of planning, prognosis and programming of veterinary activities, on the main management functions of the veterinary clinics and dispensaries, etc.
- Practical – knowledge and skills for development of a business plan of a small enterprise (veterinary practice). Course participants gain and improve their communication skills. They learn to identify the main risk factors for the veterinary business.

Assessment method:

After the completion of the course an examination is carried out under the form of a multiple choice test with questions equally distributed on the studied topics. The assessment is based on the score estimated in percentages from the total number of correct answers on the test.

The final grade is formed upon the six-grade scale. The minimum passing grade is sufficient (D, E):

Excellent 6	Very Good 5	Good 4	Sufficient 3	Poor/fail 2

A	B	C	D	E	FX	F

Grading scale:
Poor/fail (2) – very unsatisfactory level of knowledge (<50%), cheating attempts.
Sufficient (3) – knowledge of 50-60% of course content.
Good (4) – knowledge of 60-75% of course content.
Very good (5) - knowledge of 75-90% of course content.
Excellent (6) – knowledge of 90-100% of course content

Department: INTERNAL DISEASES

Course for postgraduate education: **„Internal diseases in horses“**
(short – term, individual and group specialization)
Course info: the course is intended to veterinarians with special interests to horse pathology.
Duration of the course: 16 lecture hours.
Venue: Clinic for horses at the FVM.
Numbers of learner: individual or group of max. 6 members.
Tutor profile: Ass. Prof. S. Sabev, PhD
Course description: Classification, methods of diagnostic and treatment of cardiovascular diseases. Colic-etiology, clinical signs, differential diagnosis and treatment. EIPH, RAO and Rhabdomyolysis-etiology, clinic, prophylaxis and treatment options.
Learning outcomes: Obtaining knowledges about some of the most often diseases of cardiovascular, gastrointestinal (colic), respiratory and locomotor systems.
Assessment method: written test

Department „Internal non-infectious diseases“

Course for postgraduate education: **„Intoxication in animals“**
short-term (individual and group) specialization
Course information:
Intended for practicing veterinarians from across the country
Duration of the course: 16 lectures hours.
Venue of courses: Department „Internal non-infectious diseases“, Faculty of Veterinary Medicine, Trakia University

Learner numbers: 7 or individual
Tutor profile: Prof. R. Binev, Assoc. Prof. A. Roussenov, PhD, PhD, Asst. I. Valchev, Asst. V. Marutsova, PhD, Asst. L. Lazarov, Asst. N. Nikolov
Course description: The course studies:
I. Mycotoxicosis in domestic animals.
1. Classification (1)
2. Are mycotoxicosis dangerous for domestic animals and the humans (2h)
3. Differential diagnosis of mycotoxicosis (1h)
4. Contemporary methods of antidote therapy and prophylaxis of mycotoxin (1h)
II. Phytotoxicosis in domestic animals.
1. Contemporary notions of the danger of excessive amounts of nitrates , nitrites, cyanticosides, alkaloids, dyes, toxic albumins and others in plants for animals and humans (2h).
2. Differential diagnosis, treatment and prophylaxis of phytotoxic goats (2h).
lll. The acute and chronic benefits of organic (pesticide) and inorganic (heavy metal) compounds on animal organisms.
1. Dissemination, etiology, toxicokinetics, toxycodynamics (2h)
2. Current clinical manifestation, late effects (teratogenic, mutagenic) (3h).
3. Antidote therapy and prophylaxis.
Learning outcomes: Increasing the competence of practicing doctors in diagnostics and the treatment of domestic non-infectious diseases in ruminants.
Assessment method: written test (1h).

Department: INTERNAL DISEASES, PARASITOLOGY

Course for postgraduate education: **„Gastroenterology of dogs and cats”**
(short – term, individual specialization)
Course info: the course is intended to veterinarians with special interests to pet's pathology.
Duration of the course: 3 months.
Venue: Clinic for small animals at the FVM.
Numbers of learner: individual.
Tutor profile: Ass. Prof. L. Lazarov, Assoc. Prof. Zv. Kirkova
Course description: Basic principles in diagnostics and therapy of non-infectious and parasitic diseases of the digestive system in dogs and cats.

Learning outcomes: Acquiring basic knowledge about diagnostic approaches, methods of study and principles of therapy in gastroenterology.
Assessment method: written test

Department: INTERNAL DISEASES

Course for postgraduate education: **„Endoscopy and echography in dogs and cats“**
(short – term, individual and group specialization)
Course info: the course is intended to veterinarians with special interests to endoscopy and echography in small animals.
Duration of the course: 160 lecture hours.
Venue: Clinic for small animals at the FVM.
Numbers of learner: individual or group of max. 6 members.
Tutor profile: Assoc. Prof. D. Kanakov, PhD; Ass. Prof. Ts. Hristov
Course description: Classification, endoscopic diagnostic and treatment of gastorintestinal diseases. Abdominal ultrasonography in dogs and cats - clinical and diagnostic use.
Learning outcomes: Obtaining knowledges about some of the most often gastrointestinal diseases. Obtaining knowledges about some of the most often clinical cases in ultrasonography. Obtain professional skills for endoscopy and ultrasound diagnostic.
Assessment method: written test

Department: INTERNAL DISEASES

Course for postgraduate education: **„Endoscopy, echography and electrocardiography in dogs and cats“**
(short – term, individual and group specialization)
Course info: the course is intended to veterinarians with special interests to endoscopy, echography and electrocardiography in small animals.
Duration of the course: 195 lecture hours.
Venue: Clinic for small animals at the FVM.
Numbers of learner: individual or group of max. 6 members.
Tutor profile: Assoc. Prof. D. Kanakov, PhD; Assoc. Prof. A. Rusenov, PhD; Ass. Prof. Ts. Hristov

Course description: Classification, endoscopic diagnostic and treatment of gastorintestinal diseases. Diagnostic and treatment of cardiovascular diseases. Abdominal ultrasonography in dogs and cats - clinical and diagnostic use.
Learning outcomes: Obtaining knowledges about some of the most often gastrointestinal and cardiovascular diseases. Obtain professional skills for endoscopy, electrocardiography and ultrasound diagnostic.
Assessment method: written test

Department: INTERNAL DISEASES

Course for postgraduate education: **„Basics of ultrasound diagnostics in dogs and cats“**
(short – term, individual specialization)
Course info: the course is intended to veterinarians with special interests to pet's pathology.
Duration of the course: 1 month.
Venue: Clinic for small animals at the FVM.
Numbers of learner: individual.
Tutor profile: Ass. Prof. L. Lazarov, Ass. Prof. Ts. Hristov
Course description: Basic principles in echography, ultrasound of the excretory system, ultrasound of the digestive system, echography of the liver, gall bladder and biliary tract, chest echography.

Learning outcomes: Acquisition of basic knowledge about ultrasound equipment, diagnostic approaches and study methods.

Assessment method: written test

Department: INTERNAL DISEASES

Course for postgraduate education: **„Internal diseases in dogs and cats“**
(short – term, individual and group specialization)
Course info: the training course is intended for veterinarians with interests centered on animal meditation for a company.
Duration of the course: 16 lecture hours.
Venue: Small Animal Clinic at the FVM.

Numbers of learner: individual or group of max. 6 members.
Tutor profile: Prof. R. Binev, PhD; Ass. Prof. A. Rusenov, PhD
Course description:
Classification, methods for diagnosis and treatment of kidney diseases (OBN, CBS, glomerulonephritis and renal amyloidosis).
Classification, methods for diagnosis and treatment of diseases of the urethral tract (cystitis, urethritis, prostatitis, pyelitis and urolithiasis).
Functional and inflammatory diseases of the intestinal nervous system in carnivorous animals - etiology, pathogenesis, principles of diagnosis and treatment.
Learning outcomes: obtaining knowledges about some of the most common nephrological, urological and neurological diseases in dogs and cats.
Assessment method: written test

Department: INTERNAL DISEASES

Course for postgraduate education: **„Internal noninfectious diseases of farm animals - diseases of birds"**
short-term (individual and group) specialization
Course information:
Intended for practicing veterinarians from across the country
Duration of the course: 16 lectures hours.
Venue of courses: Department „Internal non-infectious diseases“, Faculty of Veterinary Medicine, Trakia University
Learner numbers: 7 or individual
Tutor profile: Assoc. Prof. Dian Todorov Kanakov, PhD
Course description: The course studies:
I. Biological significance of mineral substances and vitamins for metabolism in birds
II. Trace element deficiencies and avitaminoses in young and old birds
1. Classification of diseases based on trace element deficiencies and avitaminosis in birds
2. Pathogenetic aspects of differential diagnosis and clinical manifestation
3. Etiopathogenetic approach in the treatment of birds trace element deficiencies
III. Macroelementosis in birds
1. Distribution and etiology
2. Classification of diseases based on birds macroelementosis

3. Pathogenetic aspects of differential diagnosis and clinical manifestation
4. Etiopathogenetic approach in the treatment of birds trace element deficiencies
Learning outcomes: Increasing the competence of practicing doctors in diagnostics and the treatment of domestic non-infectious diseases in ruminants.
Assessment method: written test (1h).

Department: INTERNAL DISEASES

Course for postgraduate education: **„Diseases of impaired metabolism in pigs"** short-term (individual and group) specialization
Course information:
Intended for practicing veterinarians from across the country
Duration of the course: 16 lectures hours.
Venue of courses: Department „Internal non-infectious diseases“, Faculty of Veterinary Medicine, Trakia University
Learner numbers: 7 or individual
Tutor profile: Assoc. Prof. Dian Todorov Kanakov, PhD
Course description: The course studies:
I. Biological significance of mineral substances for metabolism (2h)
II. Trace element deficiencies and avitaminoses in pigs and swine.
1. Classification of diseases based on trace element deficiencies and avitaminosis. (1h)
2. Pathogenetic aspects of differential diagnosis and clinical manifestation. (2h)
3. Etiopathogenetic approach in the treatment of swine trace element deficiencies. (2h)
III. Macroelementosis in pigs
1. Distribution and etiology. (1h)
2. Classification of diseases based on pig macroelementosis. (1h)
3. Pathogenetic aspects of differential diagnosis and clinical manifestation. (2h)
4. Etiopathogenetic approach in the treatment of swine macroelement deficiencies. (2h)
IV. Behavioral reactions - stress and cannibalism in pigs. (2h)
IV. Verification of acquired knowledge. (1h)
Learning outcomes: Increasing the competence of practicing doctors in diagnostics and the treatment of domestic non-infectious diseases in ruminants.
Assessment method: written test (1h).

Department „Internal non-infectious diseases“

Course for postgraduate education: **„Internal non-infectious diseases in ruminants animals“**
short-term (individual and group) specialization
Course information
Intended for practicing veterinarians from across the country
Duration of the course: 16 lectures hours.
Venue of courses: Department „Internal non-infectious diseases“, Faculty of Veterinary Medicine, Trakia University
Learner numbers: 7 or individual
Tutor profile: (Prof. R. Binev, PhD, Asst. I. Valchev, Asst. V. Marutsova, PhD, Asst. N. Nikolov
Course description: The course studies:
I. The course is focused on the contemporary aspects of the diseases of the pre-stomach (indigestion) in ruminants
1. Classification of the pre-stomach diseases in ruminants (2h)
2. Pathogenic aspects in the differential diagnosis of indigestion in ruminants (3h).
3. Etio pathogenetic approach in the treatment of indigestion in ruminants (2h).
II. Diseases of metabolism in ruminants
1. Classification (osteopathies, myopathies, ketosis, perverse appetite, etc.) (1h)
2.The composition of the ration as the main etiological factor for the metabolism(1h)
3. Differential diagnosis of metabolic diseases (3h)
4. Differentiated approach to the treatment of metabolic diseases (2h)
III. Liver diseases in ruminants.
1. Classification (0.5 h)
2. Clinical and paraclinical investigations in the diagnosis and differential diagnosis of liver diseases (05h)
3. Treatment and prophylaxis
Learning outcomes: Enhancing the competence of practicing doctors regarding the diagnosis and treatment of internal non-infectious diseases in ruminants
Assessment method: written test (1h).

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: „**Artificial insemination in dogs“**, short-term, individual/group specialization
Course information:
The course is intended for veterinary surgeons and veterinary technicians. Duration of the course is two working days (11 hours). Lectures: 7 hours and practical training five hours. The practical training performance is in the small animal clinic and clinical basis of department of “Obstetrics, reproduction and reproductive disorders”. Each group specialization includes more than six students.
Tutor profile: The course is conducted by one habilitated lecturer and one non-habilitated lecturers.
Course description: This course provides knowledge in the following topics:
anatomo-physiological features of the male and female genital organs in the dog; methods for seminal collection in the dog; seminal collection by the artificial vagina method; determination of the right moment for insemination of the bitch; clinical examination of bitch; vaginal cytology; determination of serum progesterone concentration; Artificial insemination of the bitch - method of vaginal application of semen.
Learning outcomes: Enhancing the qualifications of the participants about vaginal artificial insemination of the bitch
Assessment method: Theoretical examination.

Department “Obstetrics, reproduction and reproductive disorders”

Course for postgraduate education: **„Reproduction and reproductive disorders in dog and cat“**, short-term, individual/group specialization

Course information:
The course is intended for veterinary surgeons and veterinary technicians. Duration of the course is twenty two working days (176 hours). Lectures: 18 hours and practical training 158 hours. The practical training performance is in the small animal clinic and clinical basis of department of “Obstetrics, reproduction and reproductive disorders”. Each group specialization includes more than six students.

Tutor profile: The course is conducted by one habilitated lecturer and one to three non-habilitated lecturers.
Course description: This course provides knowledge in the following topics: anatomo-physiological features of the male and female genital organs in the dog and cat; methods for seminal collection in the dog; seminal collection by the artificial vagina method; determination of the right moment for insemination of the bitch; clinical examination of bitch and cat; vaginal cytology; determination of serum progesterone concentration; artificial insemination of the bitch - method of vaginal application of semen; control and management of the sex cycle in the dog and cat; contraception; diagnosis of pregnancy; pathology of pregnancy; pregnancy termination; dystocia; treatment of dystocia in small animals; caesarean section in small animals; genital and reproductive disorders in dogs and cats; monitoring of patients.
Learning outcomes: Enhancing the qualifications of the participants about reproduction and reproductive disorders in dog and cat.
Assessment method: Theoretical examination.

Department of Veterinary Surgery

Course for postgraduate education:
"Veterinary surgery: current problems in dogs and cats" (short-term individual specialization)
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
The course is targeted at veterinary practitioners. Its duration is 1 months (28 theoretical hours and seminars; 148 hours practical training and consultations). The course is carried out in the Small Animal Clinic of the FVMSZ. The training is individual.
Tutor profile: (number of teachers, habilitated, not habilitated)
4 habilitated; 2 not habilitated
Course description:
The trainings comprises three modules: dentistry, ophthalmology, soft tissue surgery. During the trainings, participants learn primary methods of examination of surgical patients. They observe and participate in the treatment of surgical

patients and fulfill specific tasks. By the end of the specialisation, participants are allowed to perform surgeries at their own.
Learning outcomes:
After the completion of the course, participants obtain a certificate for completion of short-term specialisation in canine and feline surgery
Assessment method:
Written and oral exams; discussion of a specific clinical case.

Department: Veterinary surgery

Course for postgraduate education: title, definition (long-term/short-term, individual/group specialization)
"Veterinary surgery: current problems in dogs and cats" (short-term individual specialization)
Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers
The course is targeted at veterinary practitioners. Its duration is 3 months (45 theoretical hours and seminars; 70 hours practical training and consultations). The course is carried out in the Small Animal Clinic of the FVMSZ. The training is individual.
Tutor profile: (number of teachers, habilitated, not habilitated)
4 habilitated; 4 non-habilitated instructors
Course description:
The trainings consists of 6 modules: 1) soft tissue surgery in small animals; 2) orthopaedic surgery in small animals; 3) anaesthesiology and critical care; 4) diagnostic X-ray imaging of small animals; 5) small animal ophthalmology and 6) small animal dentistry. During the training, participants learn primary methods of examination of surgical patients. They observe and participate in the daily clinical work with surgical patients. By the end of the specialisation, participants are allowed to perform some minor surgeries at their own.
Learning outcomes:
After the completion of the course, participants should have mastered their skills in small animal surgery and obtain a certificate for completion of short-term specialisation in canine and feline surgery
Assessment method:

During the specialisation, participants are required to pass written examinations corresponding to the six modules. At the end of the specialisation, they should take written and oral state examinations and discuss a specific clinical case.

Department "Obstetrics, reproduction and reproductive disorders"

Course for postgraduate education: **"Application of ultrasound examination in mares reproduction"**, short-term, group and individual specialization.
Course information: The course is intended for veterinary surgeons. Duration two working days, ten hours. Lectures - two hours and eight hours of practical classes. The practical lessons are held at the cow farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:
Principles of ultrasound examination. Determination of the right moment for artificial insemination of mares. Determining available content in a uterus. Diagnosis of early pregnancy. Diagnosis of the formation in the ovaries.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: test

Department "Obstetrics, reproduction and reproductive disorders"

Course for postgraduate education: **"Reproduction of mares"**, short-term, group and individual specialization.

Course information: The course is intended for veterinary surgeons. Duration two working days, ten hours. Lectures - two hours and eight hours of practical classes. The practical lessons are held at the cow farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:

Anatomy of the genital organs in mares and stallions. Sex cycle. Hormones of the sex sphere. Methods for the detection of oestrus in mares. Methods of guiding the sex cycle. Reproductive study of mares.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: test

Department "Obstetrics, reproduction and reproductive disorders"

Course for postgraduate education: **"Reproductive biotechnologys for large ruminants"**, short-term, group and individual specialization.
Course information: The course is intended for veterinary surgeons. Duration two working days, ten hours. Lectures - two hours and eight hours of practical classes. The practical lessons are held at the cow farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:
Methods for presynchronization and synchronization of oestrus. Protocols for synchronization of oestrus, ovulation and programmed/time artificial insemination. Methods for early diagnosis of pregnancy and resynchronization of non-pregnant animals.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: test

Department "Obstetrics, reproduction and reproductive disorders"

Course for postgraduate education: **"Management of the reproductive process in cattle-breeding farms"**, short-term, group and individual specialization.

Course information: The course is intended for veterinary surgeons. Duration two working days, eleven hours. Lectures - two hours and nine hours of practical classes. The practical lessons are held at the cow farm of the Trainee Experimental Farm at Thracian University.
Tutor profile: The cours are led by one habilitated and two non-academic lecturers.
Course description: The course includes information on the following topics:

Prepare to drain pregnant cows. Tracking the run of the dry period. Birth. Control of the postpartum period. Prevention and treatment of postnatal inflammation of the genital organs. Control of resurgence of oestrus after birth. Preparation for inclusion in subsequent breeding.
Learning outcomes: Enhancing the qualifications of the participants.
Assessment method: test

Department
Veterinary Microbiology, Infectious and Parasitic Diseases
Course for postgraduate education: (title, definition (long-term/short-term, individual/group specialization) **"Dog infectious diseases: diagnostic algorithm"**, short-term, individual/group specialization. Course information: (to whom is this postgraduate course intended, what is the duration of the course, how many hours are lectures and practical exercises, venue of courses), learner numbers. For Veterinarians; duration - 16 hours lecture; venue-Section.
Preventive medicine and Infectious diseases; learner numbers - 1-10.
Tutor profile: (number of teachers, habilitated, not habilitated).
Two teachers – prof. Ilia Tsachev, DSc and Asoc. Prof. Vladimir Petrov.
Course description: Presented is the latest data on Canine Distemper, Infectious Canine Hepatitis, Canine Parvovirus Infection, Canine Coronavirus Infection, Kennel Cough, Ehrlichia Canis Infection, Anaplasma Phagocytophilum Infection, Lyme Disease, Tetanus, Leismaniosis, Vaccination and Clinical cases.
Learning outcomes:
Veterinarians, after completing the course should be able to appreciate the solutions of the most popular dog's infectious diseases.
Assessment method:
Multiple Choice Questions

Department
Veterinary Microbiology, Infectious and Parasitic Diseases
Course for postgraduate education: (title, definition (long-term/short-term, individual/group specialization) **"Cat infectious diseases: diagnostic algorithm"** short-term, individual/group specialization. Course information: (to whom is this postgraduate course intended, what is the duration of the course, how

many hours are lectures and practical exercises, venue of courses), learner numbers. For Veterinarians; duration-9 hours lecture; venue-Section
Preventive medicine and Infectious diseases; learner numbers - 1-10.
Tutor profile: (number of teachers, habilitated, not habilitated)
One teacher – prof. Ilia Tsachev, DSc
Course description:
Presented is the latest data on Feline Panleucopenia, Infectious Feline Rhinotracheitis, Feline Calicivirosis, Feline Infectious Peritonitis, Feline Leukemia Virus Infection, and Feline Immunodeficiency Virus Infection. Empasis is plased on the etiology, epidemiology, clinical signs, diagnosis, treatment, prevention and control.
Learning outcomes:
Veterinarians, after completing the course should be able to appreciate the solutions of the most popular cat's infectious diseases.
Assessment method: Multiple Choice Questions