**PROPAEDEUTICS OF INTERNAL NON-INFECTIOUS DISEASES AND CLINICAL-LABORATORY DIAGNOSTIC**

Course information: 5th and 6th semesters; mandatory; lectures 60 h; practical training 60 h; credits 9.

Course Coordinator: Assoc.Prof. Dian Kanakov, PhD, phone: 699 529; e-mail: dian@gbg.bg

Lecturers: Assoc.Prof. D.Kanakov, PhD, Assoc.Prof. A.Roussenov, PhD, Assoc. Prof. R. Binev, PhD.

Course goals: Teaching students the current techniques of clinical examination and work with animals

Objectives of the course: The course will provide knowledge in the study of all organs and systems, laboratory testing of blood, urine, rumen contents, ability to work safely with the animals.

Course description: Propaedeutic and clinical laboratory diagnostic of animals are important preclinical and clinical disciplines for students in veterinary medicine. The subject of propaedeutic is the study of all basic methods, ways and means of the study of ailing animals, enabling fast and accurate diagnosis and treatment of sick animals. Propaedeutics is an introduction to the study of all clinical disciplines. Propaedeutics provides an in-depth knowledge of some general and specific symptoms and syndromes in various diseases. Knowledge of all methods and tools for the study of animals helps to accurately predict the outcome of a disease.

Learning outcomes: After completing the course students, should be able to: obtain history of the diseases, identify clinical signs correctly, perform thoroughly physical (general) and special diagnostic methods of examination, perform diagnostic and therapeutic procedures, collect the biological samples from the sick animals (blood serum, plasma, urine, rumen and stomach fluid) for diagnostic tests and interpret laboratory data.

Assessment methods: practical exam on a healthy animal, covering the information, obtained during the lectures and practical training in 5th and 6th semesters.

**CYNOLOGY**

Course information: 5th semester; elective; lectures and seminars 15 h; credits 1.

Course Coordinator: Assoc. Prof. Anton Rusenov, PhD; phone: 699-533; e-mail: vetroussenov@abv.bg

Instructors: Assoc. Prof. Anton Rusenov, PhD, Assoc. Prof. V. Semerdjiev, PhD.

Course goals: Acquiring knowledge on dogs, related to the keeping, nutrition training, breeding, accessories and possessions. Introduction to the major breed groups of dogs acknowledged be the International Cynologic Federation.

Objectives of the course: The course will provide the knowledge in main dog’s breeds, the origin, and the biological features, classification of the breeds, main characteristics and productivity. The students are going to learn about breeding, feeding and care of different breeds of dogs.

Course description: In this course students are going to obtain the knowledge in the field of origin of the breeds, domestication history and ancient dog breeds, ontogenetic, genetic and inherited diseases, evaluation system, special care for dogs, age specifics, hygiene and cosmetics. Detailed characteristics of most popular breeds of dogs, knowledge on breeding, feeding of different age groups, social behavior, intelligence, training etc. In the lectures are included presentations and films.

Learning outcomes: After completing the course students, should be able to know well biological characteristics of different breeds of dogs, feeding, breeding, communication and training of dogs. The course gives students knowledge on documentation and role of the veterinarian in organization of pure breed exhibitions.

Assessment methods: exam covering the information, obtained during the lectures and seminars in 5th semester.

**INTERNAL NON-INFECTIOUS DISEASES - GENERAL PART**

Course information: 7th and 8th semesters; mandatory; lectures 45 h; practical training 60 h; credits 8.

Course Coordinator: Assoc.Prof. Anton Roussenov, PhD, phone: 699 533; e-mail: vetroussenov@abv.bg Instructors: Assoc. Prof. Anton Roussenov, PhD, Assoc. Prof. D. Kanakov, PhD, Ass., Assoc. Prof. R. Binev, PhD.

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of internal diseases of the all domestic animals.

Objectives of the course: The course will provide the knowledge in the definition, etiology, pathogenesis, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy and prevention of the internal non-infectious diseases common for the all domestic animals (cattle, goat, sheep, swine, poultry, cat and dog).

Course description: In this course students going to provide the knowledge in the field of the gastroenterology (stomatitis, diseases of the esophagus, gastritis, enteritis, colitis, liver diseases, peritonitis); heart diseases (myocarditis, myocardosis, endocarditis, pericarditis); respiratory system diseases (rhinitis, sinusitis, laryngitis, bronchitis, pneumonia, pleuritis, emphysema, haemoptoe, bronchial asthma); urinary system diseases (nephritis, pyelonephritis, nephrosis, hydronephrosis, cystitis, urethritis, urolithiasis); dermatology (alopecia, eczema, urticaria, atopic et contact dermatitis, seborrhea, Cushing’s and Addison’s diseases, pemphigus and lupus dermatoses); nervous system diseases (meningitis et meningoencephalitis, encephalitis, Dexler disease, myelitis, eclampsia); many others diseases as: anemia, rheumatisms articulorum et musculorum, rachitis, ostomalacia, avitaminoses (A, D, E, K, B-complex, C, PP); real clinical patients from public and private farms; classroom simulations.

Learning outcomes: After completing the course students, should be able to: obtain history of the diseases, identify clinical signs correctly, chief complaint, perform thoroughly physical (general) and special diagnostic methods of examination, select diagnostic and therapeutic procedure, collect the biological samples from the sick animals (blood serum, plasma, urine, rumen and stomach fluid) for diagnostic tests and interpret laboratory data, choose the right treatment and follow-up protocol.

Assessment methods: practical exam on ill animal, covering the information, obtained during the lectures and practical training in 7th and 8th semester.

**CLINICAL VETERINARY TOXICOLOGY**

Course information: 8-th semester; mandatory; lectures 15 h; practical training 30 h; credits 4

Course Coordinator: Ass. Prof. R. Binev, PhD; phone: 699-530; e-mail: binew@abv.bg

Instructors: Ass. Prof. R. Binev, PhD; Ass. Prof. A. Russenov, PhD.

Course goals: Understanding and appreciation of the critical role played by veterinarians in protecting the health of the domestic animals from intoxications.

Objectives of the course: The course will provide the knowledge in the etiology, botanical data, toxicokinetics, toxicodynamics, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy, prevention, consideration of the most common intoxications of the all domestic animals (cattles, goats, sheeps, swines, poultry, cats and dogs).

Course description: In this course students in 8-th semester will provide the knowledges in the field of the clinical veterinary toxicology (general and special part).

*General part*: definitions, toxicant, toxin, toxicity, toxicosis, dose, lethal doses, toxicokinetics [absorbtion (inhalation, oral, dermal), distribution, metabolism (biotransformation), accumulation, excretion]; toxicodynamics, classes toxicants, diagnosis (history, sample collection and storage – feed, water, plant, blood, urine, hair, biopsy samples; postmortem samples; testing methods), treatment, antidotes. *Special Part*: mycotoxicosis (fusariotoxicosis, aspergillotoxicosis, stahybotryotoxicosis), plant toxicosis (alkaloids, glycosides, protein and amino acids, terpens, anticoagulants), feed-associated toxicant (ammoniated feed, gossypol, ionophores, nitrate, urea, sulfur), industrial products (ethylene glycol, fertilizers, gases, pesticides), metals and minerals (arsenic, copper, fluoride, iodine, iron, lead, mercury, selenium, sodium, zinc), clinical cases from private and public farms; classroom simulation.

Learning outcomes: Students, after completing the course should be able to: identify proper clinical signs, the chief complaint, review medical history, perform a thorough physical (general) and special methods of medical examination, select diagnostic and therapeutic procedure, collect the samples from the animals (blood, serum, plasma, urine, rumen and stomach fluid, faeces) for diagnostic tests and interpret laboratory data, choose the right antidotes for treatment and follow-up protocol.

Assessment methods: practical exam, covering the information, obtained during the lectures and practical training – 8-th semester.

**DERMATOLOGY**

Course information: 7-th semester; elective; lectures 11 h; practical training 4 h; credits 1.

Course Coordinator: Assoc. Prof. Anton Rusenov, PhD; phone: 699-533; e-mail: vetroussenov @abv.bg

Instructors: Assoc. Prof. Anton Rusenov, PhD; Prof. I. Dinev, PhD, DSc; Ass. Prof. R. Mutafchieva, PhD; Assoc. Prof. Tz. Chaprazov, PhD; Assoc. Prof. P. Prelezov, PhD; Asst. A. Antonov, PhD; Asst. G. Michailov; Asst. Ts. Hristov

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of the skin diseases of the domestic animals.

Objectives of the course: The course will provide the knowledge in the etiology, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy, prevention, consideration of the most common skin diseases on the domestic animals.

Course description: In this course students in 7-th semester will provide the knowledges in the field of the clinical veterinary dermatology (general and special part). *General part*: structure of the skin, approach to the case, examination of the animal (physical, dermatological), diagnostic test, diagnosis (history, sample collection and storage –blood, urine, hair, biopsy samples; postmortem samples), treatment, prevention. *Special Part*: bacterial skin diseases (pyoderma); deep bacterial infections; fungal skin diseases; viral, rickettsia and protozoal diseases; parasitic skin diseases; endocrine, immunological skin diseases; nutritional, congenital, miscellaneous skin diseases; neoplastic and non-neoplastic tumors.

Learning outcomes: Students, after completing the course should be able to: identify proper clinical signs, the chief complaint, review medical history, perform a thorough physical (general) and special methods of medical examination, select diagnostic and therapeutic procedure, collect the samples from the animals (blood, serum, plasma, urine, hair, skin) for diagnostic tests and interpret laboratory data, choose the right methods for treatment.

Assessment methods: written exam, covering the information, obtained during the lectures and practical training – 7-th semester.

**NEUROLOGY**

Course information: 8-th semester; elective; lectures 11 h; practical training 4 h; credits 1.

Course Coordinator: Asoc. Prof. Rumen Binev, PhD; phone: 699-530; e-mail: binew@abv.bg

Instructors: Asoc. Prof. R. Binev, PhD; Ass. Prof. C. Chaprazov, PhD

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of the neurological and psychological diseases of the domestic animals.

Objectives of the course: The course will provide the knowledge in the etiology, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy, prevention, consideration of the most common neurological and psychological diseases on the domestic animals.

Course description: In this course students in 8-th semester will provide the knowledges in the field of the clinical veterinary neurology (general and special part). *General part*: general principles of diagnosis of neurological disorders in animals, investigation of reactions and invoke central and spinal reflexes. *Special Part*: Diseases of the central nervous system: brain and spinal cord) (hyperaemia, anemia, concussion, sunny and heatstroke, inflammations of the brain and spinal cord, polyencephalomalacia, tumors of the brain, paralysis of n. oculomotorius, n. trochlearis, n. facialis, n. abducens, n. trigeminus, n. vestibul -cochlearis, n. sympathicus and n. parasympaticus, syndrome Wobler, spina bifida.

Functional disorders: huntington, epilepsy, status epilepticus. Clinical psychology: obsessive compulsive disorder.

Learning outcomes: Students, after completing the course should be able to: identify proper clinical signs, the chief complaint, review medical history, perform a thorough physical (general) and special methods of medical examination, select diagnostic and therapeutic procedure, collect the samples from the animals (blood, serum, plasma, urine, cerebrospinal fluid) for diagnostic tests and interpret laboratory data, choose the right methods for treatment.

Assessment methods: written exam, covering the information, obtained during the lectures and practical training – 8-th semester.

**INTERNAL NON-INFECTIOUS DISEASES OF SMALL ANIMALS**

Course information: 9-th semester; mandatory; lectures 15 h; practical training 15 h; credits 2.

Course Coordinator: Assoc. Prof. Anton Rusenov, PhD; phone: 699-533; e-mail: vetroussenov@abv.bg

Instructors:, Assoc. Prof. Anton Rusenov, PhD ; Assoc. Prof. Dian Kanukov, PhD ; Assoc. Prof. R. Binev,PhD.

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of internal diseases of small animals

Objectives of the course: The course will provide the knowledge in definition, etiology, pathogenesis, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy and prevention of the most common internal non-infectious diseases of the small animals (dogs and cats).

Course description: In this course students will obtain the knowledge in the field of the heart diseases (heart failure, chronic valvular failure, congenital heart disease and primary myocardial disease (dilated cardiomyopathy, hypertrophic cardiomyopathy, atrioventricular myopathy, restrictive cardiomyopathy, rhythm disorders, sinus tachycardia, sinus bradycardia, respiratory sinus arrhythmia); nervous system diseases (epilepsy, eclampsia in the dog.); diseases of the respiratory system (tracheal collapse); diseases of the urinary system (general etiopathogenetic principles and clinical signs of renal impairment, acute and chronic renal failure); endocrinology (diabetes, acute and chronic pancreatitis, hyperparathyroidism); many others diseases as: congenital heart disease (tetralogy of Fallot), feline hepatic lipidosis, Congenital Portosystemic Shunt.

Learning outcomes: Students, after completing the course should be able to: identify proper clinical signs, isolate the major complaint, review medical history, perform a thorough physical (general) and special methods of medical examination, select diagnostic and therapeutic procedures, collect the samples from the animals (blood, serum, plasma, urine) for diagnostic tests and interpret laboratory data, choose the right antidote treatment and follow-up protocol.

Assessment methods: theoretical exam, covering the information, obtained during the lectures and practical training, during 9-th semester.

**INTERNAL NON-INFECTIOUS DISEASES OF FARM ANIMALS**

Course information: 9-th semester; mandatory; lectures 30 h; practical training 30 h; credits 4.

Course Coordinator: Ass. Prof. R. Binev, PhD; phone: 699-530; e-mail: binew@abv.bg

Instructors: Ass. Prof. R. Binev, PhD; Ass. Prof. D. Kanakov.

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of internal diseases of the farm animals.

Objectives of the course: The course will provide the knowledge in the difinition, etiology, pathogenesis, clinical, paraclinical and pathologic findings, diagnosis, differential diagnosis, prognosis, therapy and prevention of the most common internal non-infectious diseases of the farm animals (cattles, buffalos, goats, sheeps, swines, poultry).

Course description: In this course students will provide the knowledges in the field of the gastroenterology (atonia ruminis, acidosis et alcalosis ruminis, obstipatio omasi, proventriculitis, Hoflund's disease, tympania acuta et chronica ruminis, dilatatio, obstipatio, torsio and dislocatio abomasi); heart diseases (pericarditis traumatica, enzootic heart pig and avian diseases) nervous system diseases (polyencephalomalatia, pigs diseases); many others diseases as: osteoarthrosis degenerativa, osteodisthrophia fibrossa, calcinosis enzootica, allotriophagia, canibalismus, avitaminosis (A, D, E, pellagra); parakeratosis swine, perosis avium, selenium deficiencies, ketosis, haematuria vesicalis bovum, haemglobinuria puerperalis, clinical cases from private and public farms; classroom simulation.

Learning outcomes: Students, after completing the course should be able to: identify proper clinical signs, the chief complaint, review medical history, perform a thorough physical (general) and special methods of medical examination, select diagnostic and therapeutic procedure, collect the samples from the animals (blood, serum, plasma, urine, rumen and stomach fluid) for diagnostic tests and interpret laboratory data, choose the right antidot treatment and follow-up protocol.

Assessment methods: practical exam on ill animals, covering the information, obtained during the lectures and practical training, during 9-th semester.

**EQUINE INTERNAL DISEASES**

Course information: 10-th semester; mandatory; lectures 10 h; practical training 10 h; credits 2.

Course Coordinator: Ass. Prof. Sasho Sabev, PhD; phone: 699 527; e-mail: s\_sab@gbg.bg

Instructors: Ass. Prof. Sasho Sabev, PhD

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of internal diseases of horses.

Objectives of the course: To provide knowledge to students about etiology, pathogenesis, clinical findings, diagnosis, therapy and prevention of the internal non-infectious diseases in horses.

Course description: In the course students gain theoretical and practical knowledge in the field of gastroenterology (colics), cardiovascular diseases (arrhythmias, heart insufficiency, valvular insufficiency), respiratory system diseases (pleuropneumonia, recurrent airway obstruction, exercise induced pulmonary hemorrhage, laryngeal hemiplegia), myopathy (rhabdomyolysis) and neuropathies (Stringhalt, Shiver, Motor neuron disease). Basics principles of endoscopy, ultrasonography and electrocardiography are also included in to educational program.

Learning outcomes: After completing the course students should be able to: obtain knowledge of history of ailments, identify clinical signs correctly, perform thoroughly physical (general) and special diagnostic methods of examination, interpret correctly the laboratory dates, select diagnostic and therapeutic procedure.

Assessment methods: written examination, covering the information, obtained during the lectures and practical training.

**HERDS DIAGNOSTICS**

Course information: 10-th semester; mandatory; lectures 10 h; practical training 10 h; credits 1

Course Coordinator: Asoc. Prof. Rumen Binev,PhD; phone: 699-530; e-mail: binew@abv.bg

Instructors: Asoc. Prof. Rumen Binev, PhD; Prof. I. Borisov, PhD, DSc; Prof. D. Girginov, PhD; Prof. N. Vasilev, PhD; Asoc. Prof. A. Ivanov, PhD; Asoc. Prof. K. Uzunova, PhD; Asoc. Prof. V. Petrov.

Course goals: Understanding and appreciation of the critical role played by veterinarians in diagnosing, treating and prophylaxis of diseases of the farm animals.

Objectives of the course: The course will provide the knowledge in the definition, etiology, methods of diagnostics, therapy and prevention of the most common diseases (internal non-infectious, infectious, parasitic, surgical and gynecological) of the farm animals (cattles, buffalos, goats, sheeps, swines, poultry).

Course description: In this course students will provide the knowledges in the field of Infectious diseases (prevalence, adequate prevention and adequate measures to prevent and limit); Animal Nutrition (optimum nutrition as an important factor in maintaining the health of the herd); Hygiene, ethology and animal protection (hygiene technology and well-being of farm animals). Control and management of the herd reproduction and health of the mammary gland and milk quality. Herd diagnosis of diseases of the limbs and hooves. Herd diagnosis of internal non-communicable diseases and intoxications in highly productive animals. Diagnosis, control and prevention of parasitic diseases on farms.

Learning outcomes: After completing the course students, should be able to: obtain history of the diseases, identify clinical signs correctly, perform thoroughly physical (general) and special diagnostic methods of examination, select diagnostic and therapeutic procedure, collect the biological samples from the sick animals (blood serum, plasma, urine, rumen and stomach fluid) for diagnostic tests and interpret laboratory data, choose the right treatment and optimum prevention.

Assessment methods written test exam covering the information, obtained during the lectures and practical training – 10-th semester.

**INTERNAL NON-INFECTIOUS DISEASES MOBILE CLINIC**

**Course information:** IX and X semester; Practical training - 12 hours

**Course Coordinator:** Assoc. Prof. Binev, DVM, PhD

**Instructors:** Assoc. Prof Rumen Binev, , DVM, PhD, Assoc. Prof. Dian Kanakov, , DVM, PhD, Assoc. Prof. Anton Roussenov, , DVM, PhD, Ass. Prof. Sasho Sabev, , DVM, PhD, Ass. Prof. Ivan Valchev, Ass. Prof. Lazarin Lazarov,.Ass. Prof. Krassimir , Stoyanchev, Ass. Prof. Tsanko Hristov, Ass. Prof. Vanya Marutsova, , DVM, PhD, Ass. Prof. Miroslav Mihaylov

**Course goals**: Understanding and appreciation of the critical role played by veterinarians in diagnosing and treating of internal diseases of the large ruminants

1. **Objectives of the course:** The mobile clinic training sessions are an important add-on to the practical training of students. They acquire the following most important theoretical knowledge and practical skills, mainly on cows and calves: 1 Improvement of the plan for the clinical investigation of large ruminants by calves.
2. Diagnosis of traumatic diseases of the pre-stomach.
3. Diagnosis of various diseases of the respiratory and digestive system.
4. Manipulations related to the prevention of traumatic diseases of the forehead.
5. Diagnostic and therapeutic manipulations related to the treatment of respiratory diseases in adolescent calves.
6. Diagnostic and therapeutic manipulations related to the treatment of diseases of the digestive system in adolescent calves.

**Course description:** Practical training **1 Prophylaxis of the traumatic diseases of the pre-stomach in large ruminants. 2. Prevention of diseases of the respiratory system in adolescent calves. 3.** Prevention of diseases of the digestive system in adolescent calves

**Learning outcomes:** The students acquire practical skills in the installation of permanent cage magnets in large ruminants, as well as survey of farms for diseases of the respiratory and digestive system in newborn and adolescent calves - diagnosis and treatment. Unlike the animals in the clinic, in these cases the skills are applied under field conditions.digestive system in newborn and adolescent calves - diagnosis and treatment. Unlike the animals in the clinic, in these cases the skills are applied under field conditions.

**Assessment methods: no**