

DEPARTMENT OF VETERINARY MEDICINE

SEMESTER- VII

**VETERINARY CLINICAL MEDICINE-I
(GENERAL & SYSTEMIC)**

VMD-411

Credit Hours 2+1=3

THEORY

History and scope of Veterinary Medicine, Concept of animal diseases. Concepts of diagnosis, differential diagnosis and prognosis. General systemic, states, hyperthermia, hypothermia, fever, septicemia, toxemia, shock and dehydration. Aetiology, clinical

manifestations, diagnosis, differential diagnosis, treatment prevention and control of the following diseases of cattle,- buffalo sheep/goat equine, pig and pet animals. Diseases of digestive system with special reference to rumen dysfunction and diseases of stomach In non-ruminants. Affections of peritoneum, liver and pancreas. Diseases of respiratory and cardiovascular systems including blood and blood forming organs. Diseases of uro-genital system & lymphatic system. Emergency medtelne and critical care.

PRACTICAL

Clinical examination and diagnosis: Methods of clinical examination of individual ailing animals including history taking. Examination of animal inducting behaviour and general appearance: demeanour, voice, eating, drinking, defecation, urination, posture, gait condition of skin and body coats. Inspection of body: examination of head and neck, thorax, respiratory rates, rhythm, respiratory depth, type of respiration, cardiac sounds, chest symmetry, abdomen, external genitalia, mammary glands and limbs. Physical examination: temperature taking, palpation, percussion, auscultation. Examination of ears, eyes, conjunctiva, eye balls, mouth, submaxillary and other superficial lymph nodes, jugular furrow, oesophagus, trachea. Passing of stomach tuba for locating obstruction if any. Examination of specific condition of thorax pneumothorax, haemothorax and hydrothorax Percussion/ auscultation of lung and cardiac areas. Examination of abdomen: ruminal motility, consistency, microbial population and their motility in ruminal fluid, use of trochar and canula. Examination of liver and kidneys. Liver and kidney function tests.

SEMESTER-VII

VETERINARY PREVENTIVE MEDICINE-I (BACTERIAL, FUNGAL & RICKETTSIAL DISEASES)

VMD-412

Credit Hours 2+0=2

THEORY

Clinical manifestation, diagnosis, prevention and control of infectious diseases, namely mastitis, haemorrhagic septicaemia, brucellosis, tuberculosis, Jobne's disease. black quarter, tetanus, listeriosis, leptospirosis, campylobacteriosis, actinomycosis, actinobacillosis, enterotoxaemia, glanders, strangles, ulcerative lymphangitis, colibacillosis, fowl typhoid, putiorum disease, fowl cholera, avian mycoplasmosis, spirochaetosis, salmonellosis, swine erysipelas. Other important bacterial diseases of regional importance (e.g. contagious caprine pleuropneumonia, contagious bovine pleuropneumonia etc.). Bacterial diseases of bio terrorism Instance - anthrax, botulism etc Chlamydiosis, Q fever, anaplasmosis, Dermatophilosis, aspergillosis (brooders pneumonia), candidiasis, histoplasmosis, sporotrichosis, coccidiomycosis, mycotoxicosis, etc

SEMESTER VIII

VETERINARY CLINICAL MEDICINE -II (METABOLIC & DEFICIENCY DISEASES)

VMD-421

Credit Hour 2+0=2

THEORY

Aetiology, clinical manifestations, diagnosis, differential diagnosis, treatment prevention and control of metabolic disorders/ production diseases. Milk fever, acute parturient hypocalcaemia in goats, sows and bitches, osteodystrophy fibrosa, lactation tetany in mares, downer cow syndrome, ketosis, hypomagnesaemia in cattle and buffalo, azoturia in equines, hypothyroidism and diabetes in dogs. Diagnosis and management of diseases caused by deficiency of iron, copper, cobalt zinc, manganese, selenium, calcium, phosphorus, magnesium, vitamin A, D, E, B. complex, K and C in domestic animals and poultry. Nutritional haemoglobinuria. Diseases of neonates. Diseases of skin, musculo-skeletal system, nervous system and sense organs of domestic animals. Management of common clinical poisonings. Rote of alternative/integrated/ethno veterinary medicine in animal disease management.

SEMESTER- VIII

VETERINARY PREVENTIVE MEDICINE-II (VIRAL & PARASITIC DISEASES)

VMD-422

Credit Hours 2+0=2

THEORY

Clinical manifestation, diagnosis, prevention and control of infectious diseases, namely foot and mouth disease, rinderpest bovine viral diarrhoea, malignant catarrhal fever, Infectious bovine rhinotracheitis, enzootic bovine leucosis, ephemeral fever, blue tongue, sheep and goat pox, PPR, classical swine fever. Important exotic diseases for differential diagnosis - African swine fever, swine vesicular disease, vesicular stomatitis, Rift valley fever, Aujeezky's disease. Rabies, African horse sickness, equine influenza, equine infectious anaemia, equine rhinopneumonitis, canine distemper, Infectious canine hepatitis, canine parvoviral disease. Highly pathogenic avian influenza, Newcastle (Ranikhet) disease, Merek's disease. avian leucosis, Infectious bronchitis, infectious laryotracheitis, avian encaphalomyelitis, fowl pox, infectious bursal disease, Inclusion body hepatitis-hydropericardlum sydprome. Other emerging and exotic viral diseases of global importance. Amphistomosis, fascioliosis, {Gastrointestinal nematodiasis, schistosomosis, echinococcosis, tapeworm infestations (cysticercosis), verminous broochitis, coeneurosis, trichomonosis, blood protozoan infections (trypanosomosis. theileriosis. babesiosis etc.). canine eperythrozoon infection, coccidiosis.

SEMESTER- IX

ANIMAL WELFARE, ETHICS AND JURISPRUDENCE

VMD-511

Credit Hours 2+0=2

THEORY

Definition of animal welfare and ethics. Human and animal welfare in relation to ecosystem and environmental factors. Role of veterinarians in animal welfare. Animal welfare organisations, Animal Welfare Board of India - their role, functions and current status. Rules, regulations, laws on animal welfare. Prevention of Cruelty to Animals (PCA) Act, 1960 {59 of 1960}. Role and function of Committee for the purpose of Controlling and Supervising Experiments in Animals (CPCSEA). Protection of wild life in nature and captivity. Protection and welfare of performing animals. Welfare of animals during transportation. Animal welfare in commercial livestock farming practices. Protection and welfare of working animals. Pet and companion animal welfare. Animal welfare during natural calamities and disaster management. Legal duties of veterinarians, Forensic and State Medicine laws. Common offences against animals and laws related to these offences. Examination of living and dead animals in criminal cases. Cruelty to the animals and bestiality. Legal aspects of: Examination of animals for soundness, examination of Injuries and post-mortem examination. Causes of sudden death in animals. Collection and despatch of materials for chemical examination, detection of frauds-doping, alteration of description, biotyping etc. Cattle slaughter and evidence procedure in courts. Provincial and Central Acts relating to animals. Glanders and Farcy Act 1899 (13 of 1899). Dourine Act 1910 (5 of 1910), Laws relating to offences affecting Public Health. Laws relating to poisons and adulteration of drugs. Livestock Importation Act Evidence, liability and insurance. Code of Conduct and Ethics for veterinarians - the Regulations made under Indian Veterinary Council Act, 1984.

SEMESTER- IX

ZOO/WILD ANIMAL BREEDING, NUTRITION, MANAGEMENT AND HEALTH CARE

VMD-512

Credit Hours 1+1=2

THEORY

Taxonomy of various genera of wild/zoo animals of India along with their descriptions. Ethology of wild life species. Basic principles of habitat and housing of various classes of wild and zoo animals. Population dynamics of wild animals, effective population size of wild animals in captivity/zoo/natural habitats. Planned breeding of wild animals. Controlled breeding and assisted reproduction. Breeding for conservation of wild animals. Feeding habits, feeds and feeding schedules of zoo animals. Nutrient requirements of wild animals, Diet formulation and feeding of various age groups, sick and geriatric animals. Restrain, capture, handling, physical examination and transport of wild and zoo animals. Principles of anaesthesia, anaesthetics, chemicals of restraining, common surgical Interventions. Capture myopathy. Principles of zoo hygiene, public health problems arising from zoos. Prevention, control and treatment of infectious, parasitic, nutritional and metabolic diseases in zoo and wild animals. Acts and Rules related to Zoo and wild animals. National

and international organisations and institutions interlinked to wild and zoo animals - rote and functioning.

PRACTICAL

Visit of nearby wild life sanctuary/zoo/wild animal centres to study the care and management, restraint, examinations, administration of medicines etc. in zoo animals. To study the housing, feeds and feeding schedule of zoo animals.

To study the implementation of various Acts and Rules related to Zoo animals care and management Post mortem examination of wild and zoo animals. Handling, processing and interpretation of pathological materials from zoo and wild animals. Attending to common surgical interventions on zoo and wild animals.

Planning for balanced feeding. Diet charts, preparation of balanced diet for new born, growing and sick animals as oral and intravenous feeds. Preparation of modified diet under selected conditions. Hygienic preparation, preservation and storage of foods.

(This course shall be taught jointly with the Departments of Livestock Production Management, Animal Nutrition, Animal Genetics and Breeding, Veterinary Pathology, and Veterinary Surgery and Radiology)

SEMESTER- IX

PET/ ANIMAL BREEDING, MANAGEMENT, NUTRITION AND HEALTH CARE

VMD- 513

Credit Hours 1+1= 2

THEORY

Breeds of dogs- international pedigree breeds and those commonly seen in India. Pedigree sheet and major breed traits. Detection of oestrus and Breeding of dogs. Selecting a breed to keep, selection of a pup.

Feeding of dogs- nutritional requirements of important breeds and different age groups. Management of dogs-kennels, care of pups and pregnant bitch. Dog shows- preparation for the shows, kennel clubs, important characters for judgment. Whelping. Utility of dogs- guarding, defense, patrolling, riot control, scouting, espionage, mine detection, tracking, guiding, hunting, races, retrieving, rescue, and other uses. Principles of training of dogs.

Common diseases affecting dogs (bacterial, viral, parasitic, fungal, nutritional etc.) - their clinical manifestations, diagnosis, treatment and control. Vaccination/ deworming schedules. Common surgical interventions in dogs- docking, ear cropping, nail cutting, sterilization. Common anaesthetics and anaesthesia in dogs.

Common breeds of cats, their habits, feeding, breeding and management. Common diseases of cats-their diagnosis, treatment and control. Common surgical interventions in cat.

Common pet birds seen in India. Introduction to their caging, breeding, feeding, management, disease control and prevention.

PRACTICAL

Recognising various breeds. Handling of dogs. Types and use of leads and collars. Brushing/grooming and bathing of dogs. Restraining of dogs for examination/medication.

Detection of oestrus, mating, whelping (through demonstration). Care of pups, weaning, administration of medicine. Nail and tooth care, clipping of hairs for show purposes. Hygiene of kennel/pens, feeding utensils. Visit to dog show. Vaccination and surgical interventions (nail clipping, docking, sterilization).

Common breeds of cats, handling, restraint, examination, medication and surgical intervention in cats and kittens.

Identification of common pet birds. Handling of pet birds, their examination and administration of medicines.

(This course shall be offered jointly by the Departments of Veterinary Medicine, Livestock Production Management, Animal Nutrition. Animal Genetics and Breeding. Veterinary Pathology, and Veterinary Surgery and Radiology).

REFERENCE BOOKS

1. Radostitis, O.M., Gay, C.C., Blood, D.C. and Hinchcliff, K.W. 2000. *Veterinary Medicine*. A textbook of the disease of Cattle, Sheep, Pigs, Goats and Horses. IX edn. Book Power – WB Saunders, London, U.K.
2. Geo. F. Boddie. 2000. *Diagnostic Methods in Veterinary Medicine*. 5th edn. Greenworld Publishers, Lucknow.
3. Craig. E. Greene. 1998. *Infectious Diseases of the Dog and Cat*. 2nd edn. W.B. Saunders Company, London, U.K
4. Ettinger, S. J and Feldman E.C .2000. *Textboob of Veterinary Internal Medicine*. 5th Edn. Vol1. W.B. Saunders, London, U.K
5. Amalendu chakrabarti. 1988. *A textbook of Preventive Veterinary Medicine*. Kalyani Publishers, New Delhi.