This syllabus is designed as a guideline to the key areas that the delegate will be expected to understand. The emphasis is very much on the approach to different conditions – practical examination techniques, application of appropriate diagnostic procedures and an understanding of the potential complications associated with different body systems, rather than an exhaustive list of potential disorders. The veterinarian will instead be expected to have knowledge of common disorders and an appreciation of resource material from where further research can be undertaken into more unusual conditions. An understanding of normal anatomy and physiology, and how these impact on the pathogenesis and treatment of diseases will be expected.

Suitable reading lists and resource material will be provided, both in this Workbook, and by individual tutors during the course.

**The Pharmacy**
- The Medicines Act 1968 (as amended)
- Storage dispensing and labelling
- Misuse of Drugs Act 1971 (as amended)
- Health and Safety at Work Act 1974 (as amended)
- Control of Substances Hazardous to Health Regulations 2002 as amended)

**Therapeutics**
- Pharmacokinetics, potential interactions and adverse effects of common therapeutics agents (including anaesthetics, anti-inflammatories, analgesics, anti-microbials and anti-parasitics)

**Basic biology and natural history for individual species**
- Phylogeny and taxonomy
- Housing and husbandry
- Biology and natural history
- Normal and abnormal behaviour
- Handling and transportation
- Feeding and nutrition
- Anatomy and physiology
- Haematology and biochemistry
- Reproductive physiology and performance, sexing
- Normal parturition and dystocia
- Chemical restraint and anaesthesia
- Ecology, population and conservation biology
- Welfare, ethics and law
- Zoonotic potential

**Immunisation**

**Clinical pathology**
- Collection of diagnostic samples, sampling sites, blood volumes
Normal haematological profiles and changes in disease processes
Normal biochemical profiles and changes in disease processes
Lymphodilution
Diagnostic cytology
Microbiological investigation of exotic animals
Bone marrow collection and evaluation
Faecal examination
Urine examination

Fluid therapy
Identification of fluid replacement type
Calculation of requirements
Administration techniques

Diagnostic Imaging
Imaging techniques in mammals, reptiles and avian species including:
Radiography and radiology
Contrast media techniques
Radiology of soft tissues and the skeleton
Ultrasonography
Echocardiography
Principles of endoscopy including:
Endoscopy of the Respiratory tract
Endoscopy of the Gastrointestinal tract
Endoscopy of the Reproductive tract

Principles of exotic animal anaesthesia
RestRAINT, premedication, induction and maintenance of anaesthesia
Anaesthetic monitoring
Emergency techniques during anaesthesia
Resuscitation

Current concepts of exotic animal surgery
Basic surgical techniques
Surgical neutering
Coelomic surgery
Microchip implantation
Oesophagostomy techniques
Cannulation techniques for fluid administration
Repair of shell and beak defects
Use of radiosurgery in exotics

Current concepts in exotic animal orthopaedics
Common fracture types in different species
Principles of fracture repair
Internal and external fixation
Muscle tendon adhesions

Rabbits
Diagnosis and treatment of skin diseases including:
Ectoparasites, fly strike
Bacterial, fungal, viral and neoplastic skin disease
Abscesses
Sore hocks
Gastrointestinal physiology and GI diseases including
Diagnosis and management of motility disturbances
Mucoid enteropathy
Dysautonomia
Causes, diagnosis, treatment and management of diarrhoea
Dental disease
Overgrown teeth
Traumatic injury to teeth
Treatment of abscesses
Caries
Dental surgery
Common ophthalmological conditions
Nasolacrimal disease
Diagnosis and treatment of respiratory tract disease including
Pasteurellosis
Other bacterial, mycoplasma and chlamydial causes of respiratory disease
Viral diseases
Neoplasia
Allergic rhinitis and bronchitis
Musculoskeletal and neurological disease
Paresis/paralysis
Vestibular disease
Seizures
Heat stroke
Encephalitizoon cuniculi
Urogenital disease
Normal urine and variations in urine colour
Urinary incontinence
Urolithiasis / cystitis
Renal failure
Endometrial, ovarian and mammary disease
Testicular disease
Central nervous diseases
Infectious diseases to include amongst others:
Coccidiosis
Myxomatosis
Viral haemorrhagic disease

Reptiles
Investigation of the sick reptile
Diagnosis and treatment of common dermatological conditions including:
Dysecdysis and scale rot
Trauma and abscesses
Erythema, petechiae, ecchymoses and pigment changes
Overgrown beak and claws
Shell pyramiding in chelonians
Ectoparasites, bacterial and fungal disease
Neoplasia
Common diseases of the eye including hypertrophic nictitans, cataract,
Xerophthalmia, arcus lipoides
Diagnosis and treatment of common gastroenterological disorders including:
Mouth rot
Periodontal disease
Vomiting and regurgitation
Endoparasitic diseases of the stomach and intestines
Disease of the large intestine and causes of diarrhoea
Diagnosis and treatment of liver disease
Aetiology, diagnosis and treatment of common respiratory tract diseases including:
Pneumonia – bacterial, fungal and viral
Upper respiratory tract disease e.g. chelonid herpesvirus
Lung worms
Diagnosis and treatment of cardiovascular disease
Diagnosis and treatment of renal disease, gout
Diagnosis and treatment of reproductive tract disease including
Egg binding and fractured egg syndrome
Pre-ovulatory stasis
Hemipenal and phallus prolapse
Oviduct prolapse
Reproductive tract surgery
Metabolic, nutritional and infectious bone and shell disease
Tail shedding
Diseases of the central nervous system – toxic, metabolic, parasitic, bacterial and viral
Hypocalcaemic collapse
Post hibernation anorexia and other diseases

**Avian medicine and surgery**

Diagnosis and treatment of the ‘sick bird’ to include:
- Gastrointestinal disease
- Proventricular dilation disease/Bornavirus
- Beak and feather disease/circoviral infections
- Respiratory tract conditions to include amongst others
- Chlamyrophilosis
- Aspergillosis
- Diseases of the nares and sinuses
- Diseases of the lower respiratory tract
- Medication in respiratory tract disease
- Urogenital tract disease
- Excessive egg laying
- Reproductive tract surgery
- Egg binding / lethargy / peritonitis
- Orchitis
- Cloacal disease
- Dermatological conditions
- Feather abnormalities / plucking
- Trauma management
- Fracture management

**Fish**

Disease patterns, environmental factors and fish husbandry
- Examination of the environment (oxygen, ammonia, nitrite, nitrate, pH, temperature etc.)
- Clinical examination
- Chemical restraint and anaesthesia
- Diagnostic imaging
- Clinical pathology
- Post mortem examination
- Methods of medication and therapeutics
- Quarantine and disease prevention
- Principles of fish surgery
- Behavioural changes
- Diagnosis and treatment of common skin diseases
- Ocular disorders
- Respiratory disease
- Internal diseases including oral lesions, abnormal body shape, abdominal enlargement
- Investigation of sudden death

**Mice**

Diagnosis, treatment and prevention of common skin diseases including:
- Ectoparasites, bacterial, viral, neoplastic and fungal disease
- Gastrointestinal disease including:
- Bacterial causes
- Tyzzer’s disease
- Protozoa and helminths
- Respiratory tract disease including:
- Mycoplasma pulmonis
- Sendai virus
Endocrine disease
CNS Disease
Infectious diseases:
Helicobacter spp. infection
Mouse hepatitis virus

Rats
Diagnosis, treatment and prevention of common skin diseases including:
Ectoparasites, bacterial, viral and fungal disease, neoplasia (including mammary gland neoplasia)
Gastrointestinal disease including:
Bacterial causes
Protozoa and helminths
Respiratory tract disease including:
Mycoplasma pulmonis
Sialodacryoadenitis virus
Sendai virus
Endocrine disease
CNS and middle ear disease including:
Spontaneous radiculoneuropathy
Pituitary neoplasia
Renal disease

Gerbils
Diagnosis, treatment and prevention of common skin diseases including:
Ectoparasites, bacterial, viral and fungal disease
Sebaceous gland dermatitis
Reproductive and adrenal gland disease affecting the skin
Behavioural-induced skin disease
Gastrointestinal disease including:
Bacterial diseases
Tyzzer’s disease
Coccidia and tapeworm infection
Respiratory tract disease including sequelae of otitis media and interna
Endocrine disease
Reproductive tract disease including ovarian and uterine tumours
CNS diseases to include:
Epilepsy
Head tilt

Hamsters
Diagnosis, treatment and prevention of common skin diseases including:
Ectoparasites, bacterial, viral and fungal disease
Hyperadrenocorticism
Neoplasia including cutaneous T cell lymphoma
Gastrointestinal disease including
Dental disease, impacted pouches, constipation
Tyzzer’s disease, clostridial infection, salmonella
Wet tail (Lawsonia intracellularare) and tapeworm Rodentolepis (Hymenolepis) nana
Respiratory tract disease
Cardiovascular disease (endocarditis etc)
Endocrine disease including diabetes mellitus
Reproductive tract disease including pyometra and pregnancy toxaemia
CNS disease
Lymphocytic choriomeningitis

Guinea pigs
Diagnosis, treatment and prevention of common skin diseases including:
Ectoparasites, bacterial, viral and fungal disease
Pododermatitis, abscesses and wounds
Endocrine disease affecting the skin
Nutritional skin disease
Gastrointestinal disease including
Malocclusions
Common causes of diarrhoea such as coccidiosis and salmonella
Clostridia, Tyzzer’s Disease, Salmonellosis
Respiratory tract disease
Cervical lymphadenitis
Endocrine disease
Diabetes mellitus
Reproductive tract disease including cystic ovaries, pregnancy toxaemia, mastitis
Cystitis and urolithiasis
CNS Disease
Antibiotic toxicity

Chinchillas
Diagnosis, treatment and prevention of common skin diseases including ectoparasites, bacterial, viral and fungal disease
Dental disease
Gastrointestinal disease including clostridial infections
Respiratory tract disease including Bordatella and stress-related disease
Endocrine disease including diabetes mellitus
CNS Disease
Infectious diseases including:
Listeriosis
Paratuberculosis

Ferrets
Diagnosis and treatment of skin diseases including:
Ectoparasites
Bacterial, fungal, viral and neoplastic skin disease
Gastrointestinal diseases including:
Dental disease, dental calculi gingivitis and buccal abscessation
Gastritis, proliferative bowel disease, viral enteritis
Diagnosis and management of diarrhoea
Insulinoma
Reproductive disease including persistent oestrus and hyperoestrogenism
Cardiovascular disease including cardiomyopathy
Respiratory tract disease including specific infectious and parasitic causes
Hyperadrenocorticism
Urolithiasis / cystitis
Renal failure
Central nervous diseases
Infectious disease
Distemper virus infection
Tuberculosis
Aleutian disease
Human influenza

Invertebrates
Common disorders associated with physical injuries, parasites and inappropriate nutritional regimes

Primates
Diagnosis, treatment and prevention of common skin diseases including:
Ectoparasites, bacterial, viral and fungal disease, skin neoplasia
Metabolic / nutritional bone disease
Gastrointestinal disease
Dental caries
Bacterial gastroenteritis
Gastric dilation
Diarrhoea including common parasitic causes
Common cardio-respiratory tract disease
Encephalomyocarditis
Musculoskeletal disease
Arthritis
Traumatic limb fractures
Infectious disease:
Tuberculosis
Pseudotuberculosis
Rabies
Melioidosis
Herpesvirus B
Marburg disease
Hepatitis
Measles
Salmonellosis
Shigellosis
Entameobiasis
Endoparasitism

Laboratory animal medicine
Legislation concerning the care and use of relevant laboratory animals

Wildlife medicine and surgery
Legislation
Protection of Animals Act 1911
Abandonment of Animals Act 1960
Dangerous Wild Animals Act 1976
Veterinary Surgeons Act 1966
Wildlife and Countryside Act 1981 as amended
Welfare of Animals Transport Order 1997 as amended
Welfare of Animals Act 2006
Welfare of Animals Act (Scotland) 2006
Restraint, anaesthesia and trauma management in wild birds and mammals
Diagnosis and management of common disorders affecting fox, badgers, deer, squirrels, seals, other native mustelids, hedgehog, bats, birds of prey, swans, fish-eating birds and other wild birds
Rehabilitation overview for British wildlife
Zoonotic diseases of wildlife in the UK

Zoo Animal Medicine
Modern zoo legislation and management (including Zoo Licensing Act 1981 and Balai regulations 92/65 as subsequently amended)
Routine health-care management and common disease problems
Restraint of zoo animals
Drug delivery systems, immobilisation and anaesthetic regimes