GENERAL PRACTITIONER CERTIFICATE IN EXOTIC ANIMAL PRACTICE – GPCert(ExAP)

SYLLABUS

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
Chlamydophilosis
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 intracellularis) 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
Restrain, 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
Restrain of zoo animals
Drug delivery systems, immobilisation and anaesthetic regimes