Postgraduate Certificate in Small Animal SURGERY
**Principles of surgery**

**Speaker:** Ian Nicholson  
**BVSc CertSAS DipECVS MRCVS**

- Preoperative evaluation and preparation of the surgical patient  
- Sterilisation and asepsis  
- Surgical instruments – handling and uses  
- Haemorrhage and haemostasis (including vessel-sealing devices)  
- Principles and practice of fluid therapy  
- Electrosurgery, lasers in surgery  
- Sutures, adhesives and stapling devices  
- Wound healing  
- Wound management – drains, dressings, bandages  
- Surgical complications  
- Principles of analgesia  
- Antibiotics in surgery  
- Principles of postoperative management  
- Infection control in veterinary practice

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**Abnormalities of bone**

**Speaker:** Steve Butterworth  
**MA VetMB CertVR DSAO MRCVS**

- Normal bone growth and maturation  
- The response of bone to injury or disease  
- The response of bone to disease  
- Osteomyelitis and sequestrum formation  
- Neoplasia involving bone  
- Nutritional bone disease  
- Non-nutritional bone disease  
- Panosteitis  
- Metaphyseal osteopathy  
- Hypertrophic osteopathy  
- Cranio mandibular osteopathy  
- Chondrodysplasia  
- Renal secondary hyperparathyroidism  
- Vitamin D-dependent rickets  
- Osteopetrosis  
- Disuse osteoporosis  
- Growth disturbances involving the long bones in dogs and cats  
- Simpler surgical techniques  
- When to refer

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**Abnormalities of joints**

**Speaker:** John Innes  
**BVSc PhD CertVR DSAS(Orth) MRCVS**

- Normal structure of synovial joints  
- Aetiology and pathogenesis of osteochondrosis  
- Aetiology and pathogenesis of osteoarthritis  
- General principles of diagnosis and management of joint disease, including principles of arthrocentesis and arthroscopy  
- Osteoarthritis – generic aspects of diagnosis and management  
- Hip dysplasia – aetiology and pathogenesis, clinical signs, diagnosis and management  
- Elbow and hip scoring schemes  
- Immune-mediated joint disease – aetiology and pathogenesis, clinical signs, diagnosis and management  
- Septic arthritis – aetiology and pathogenesis, clinical signs, diagnosis and management
Fracture management I

Speaker: Gareth Arthurs  PGCertMedEd MA VetMB CertVR CertSAS DSAS(Orth) FHEA MRCVS

- Classification of fractures
- Fracture healing, and factors which influence fracture healing
- Principles of fracture management
- Fracture planning
- External coaptation – bandages, splints, casts
- Internal fixation – wires, pins, plates
- External skeletal fixation – linear, circular
- Use of bone grafts
- Complications of fracture repair

Abdomen I

Speaker: Donald Yool  BVMS PhD DipECVS CertSAS MRCVS

- Surgical approach to the abdomen
- Principles of handling the GI tract: incision/resection/ anastomosis
- Assessing viability of the GI tract
- Gastric surgery
- Small intestinal surgery
- Large intestinal surgery
- Management of peritonitis
- Placement and management of gastric and jejunal feeding tubes
- Surgical approach to the perineal region
  - Perineal rupture/hernia
  - Anal sac disease

Abdomen II

Speaker: Lee Meakin  MA VetMB MRes PhD DipECVS MRCVS

- Repair of defects in the diaphragm and abdominal wall
- Hepatic surgery
  - Principles of investigation and management of porto-systemic shunts
  - Principles of biliary tract surgery
  - Surgical biopsy of the liver
- Partial or complete removal of the spleen
- Principles of surgery of the pancreas, adrenal glands
- Urinary tract surgery
  - Nephrectomy
  - Principles of ureteric surgery
  - Cystotomy and cystostomy, placement of indwelling catheters, placement of cystostomy tubes
- Investigation and management of incontinence
- Surgery of the prostate, including paraprostatic lesions
- Investigation of and treatment options for urethral disease
- Surgery of the female reproductive tract
  - Ovariectomy
  - Caesarean section
- Surgery of the male reproductive tract
  - Cryptorchidism

Fracture management II

Speakers: Gareth Arthurs  PGCertMedEd MA VetMB CertVR CertSAS DSAS(Orth) FHEA FRCVS and Ronan Mullins  MVB DECVS

Surgical models will be available for this full-day practical session. Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants. Possible procedures include:

- Use of internal fixation techniques
- Application of external skeletal fixators

Abdomen III

Speakers: Alison Moores  BVSc(Hons) BVSc
- Lee Meakin  MA VetMB MRes PhD DipECVS MRCVS

Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants. Possible procedures include:

- Intestinal suturing, stapling and anastomosis
- Gastropexy
- Placement of gastric and jejunal feeding tubes
- Surgical approach to the perineal region
- Anal gland excision
- Liver biopsy
- Splenectomy
- Nephrectomy
- Cystotomy, cystostomy, placement of cystostomy tubes
- Ovariectomy
**Surgical oncology & Reconstructive surgery**

**Speaker: Rachel Burrow** BVetMed CertSAS CertVR DipECVS MRCVS

This is a part-theory, part-practical session. Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants. Possible procedures include:

- Surgery in the management of the oncology patient
- Surgical planning
- Principles of use of adjuvant chemotherapy/radiotherapy
- Thermal injury
- Closing skin defects
- Skin grafts/flaps
- Limb amputation
- Principles of limb-sparing surgery

**Forelimb I**

**Speaker: James Grierson** BVetMed CertVR CertSAS DipECVS FHEA MRCVS

- Clinical examination of the forelimb
- The shoulder joint
  - Osteoarthritis
  - Conditions of the biceps tendon
  - Luxation (congenital, traumatic) and medial glenohumeral ligament injuries
  - Conditions of the infraspinatus and supraspinatus muscles and tendons
- The elbow
  - Dysplasia (UAP, OCD, coronoid disease)
  - Elbow incongruity and growth disturbances
  - Luxation (congenital, traumatic)
  - IOHC
- The carpus
  - Hyperextension injuries
  - Collateral instability
  - Abductor pollicis longus tenosynovitis
- The distal limb
  - Luxations and subluxations
  - Digit amputation and excision arthroplasty
  - Abductor pollicis longus tenosynovitis
- Fractures of the forelimb
  - Scapula
  - Humerus
  - Radius/ulna
  - Carpals bones
  - Metacarpals
  - Digits

**Forelimb II**

**Speakers: Elvin Kulendra** BVetMed MVetMed CertVDI DipECVS MRCVS and **Kevin Parsons** BVSc (Hons) PhD CertSAS DipECVS FHEA MRCVS

Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants. Possible procedures include:

- Surgical approaches to the shoulder and elbow joints
- Surgical approaches to the long bones of the forelimbs
- Partial and total carpal arthrodesis
- Digit amputation

**Neurology**

**Speaker: Nicolas Granger** DVM PhD DipECVN FHEA MRCVS

- Functional anatomy of the spinal cord
- Clinical neurological examination and lesions localisation
- Diagnostic techniques – imaging, CSF collection and analysis, EMG
- Congenital and developmental spinal disease
  - Hemivertebrae, block vertebrae, transitional vertebrae
  - Atlantoaxial subluxation
- Intervertebral disc disease
  - Classification
  - Management options for acute/subacute extrusions and protrusions
  - Wobbler syndrome
  - Cauda equina syndrome
  - FCE
- Management options for spinal fractures/luxations
- Recognition of inflammatory CNS disease
- Recognition of neoplastic CNS disease

**Hind limb I**

**Speaker: Jonathan Pink** BSc BVetMed CertSAS DipECVS MRCVS

- Clinical examination for hindlimb lameness
- The pelvis
  - Management options for pelvic fractures and SI separations
  - When to refer
  - Neoplasia
- The hip
  - Hip dysplasia
  - Traumatic hip luxations
  - Legge-Perthes disease
  - Femoral neck fracture/proximal physeal separation
- The femur
  - Fracture
  - Neoplasia
- The tibia/fibula
  - Fracture
  - Neoplasia
- The tarsus
  - Fracture/luxation including collateral instability
  - Plantar ligament disruption
  - Achilles tendon injury
Hind limb II

Speaker: Alexis Bilmont  DVM DipECVS MRCVS

- Functional anatomy of the stifle joint
- Cruciate disease
- Meniscal examination: meniscal injuries
- Collateral ligament injuries
- Patella luxation – traumatic and developmental
- Osteochondrosis
- Intra-articular fractures of the stifle joint (distal femur, patella, proximal tibia)
- Miscellaneous conditions of the stifle joint (septic arthritis, inflammatory arthritis, neoplasia)
- Principles of total knee replacement

Head and neck I

Speaker: Stephen Baines  MA VetMB PhD CertVR CertSAS DipECVS MRCVS

- Oral trauma
  - Management of pharyngeal penetration injuries
  - Principles of soft palate repair
  - Treatment options for maxillary and mandibular fractures
- Oral neoplasia
  - Biological behaviour and treatment options
  - Biopsy techniques
  - Use of buccal mucosal flaps
  - Mandibulectomy and premaxilllectomy
- Principles of dental extraction
- Anaesthesia and analgesia for oral surgery
- Salivary gland surgery
  - Management of salivary mucocoeles
  - Salivary gland neoplasia
- Indications and technique for placing feeding tubes
  - Naso-gastric
  - Oesophagostomy
- Surgery of the thyroid and parathyroid glands

Hind limb III

Speakers: Steve Clarke  BVM&S DSAS(Orth) DipECVS MRCVS and Jonathan Pink  BSc BVetMed CertSAS DipECVS MRCVS

Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants*. Possible procedures include:

- Surgical approaches to the hip, stifle and hock joints
- Surgical approaches to the long bones of the hindlimbs
- Management of hip dislocation
- Lateral fabellar suture
- Tibial crest transposition
- Partial and total tarsal arthrodesis

Head and neck II

Speaker: Alison Moores  BVSc(Hons) CertSAS DipECVS MRCVS

- Surgery of the upper airways
  - Brachycephalic obstructive airway syndrome
  - Treatment options for laryngeal paralysis
  - Diagnostic approach to nasal disease
  - Management of nasal aspergillosis
  - Management of nasal tumours
- Tracheal surgery
  - Indications for and principles of tracheostomy
  - Postoperative management of patients after tracheostomy
  - Tracheal trauma, including avulsion injuries
  - Tracheal neoplasia
- Surgical conditions of the ear
  - Pinna
  - Surgical options for management of external ear disease
  - Diagnostic approach to middle ear disease
  - Surgical options for management of middle ear disease
- Periocular surgery
  - Eyelids
  - Nictitating membrane
  - Nasolacrimal duct
- Cornea and sclera
  - Surgical management of corneal ulceration
  - Enucleation
Head and neck III

Speakers: Alison Moores BVSc(Hons) CertSAS DipECVS MRCVS and Stephen Baines MA VetMB PhD CertVR CertSAS DipECVS MRCVS

Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants*. Possible procedures include:

- Placement of tracheostomy tubes
- Placement of feeding tubes
- Approach to the thyroid/parathyroid glands
- Approaches to the salivary glands
- Mandibulectomy and premaxillectomy
- Dental extraction
- Soft palate resection
- Lateral wall resection
- TECABO, VBO
- Tonsillectomy
- Surgery for stenotic nares, laryngeal saccule removal
- Eyelid surgery
- Enucleation

Thorax

Speaker: Alison Moores BVSc(Hons) BVSc CertSAS DipECVS FRCVS

- Surgical approaches to the thorax
- Principles of thoracoscopy
- Placement and management of chest drains
- Surgical management of pleural cavity disorders
  - Pyothorax
  - Chylothorax
  - Pneumothorax
- Principles of surgical management of masses in the pleural space, mediastinum and chest wall
  - Thoracic wall reconstruction techniques
- Surgical conditions of the lungs and bronchi
  - Neoplasia
  - Inhaled foreign bodies
  - Lung lacerations
  - Lung lobe torsion
- Pericardectomy
- Principles of treatment options for PDA
- Oesophageal surgery
  - Treatment options for oesophageal foreign bodies
  - Principles of surgery for vascular ring anomalies
- Anaesthesia and analgesia for thoracic procedures

Thorax II

Speakers: Alison Moores BVSc(Hons) BVSc CertSAS DipECVS FRCVS and Stephen Baines MA VetMB PhD CertVR CertSAS DipECVS DipClinOnc MRCVS

- Equipment required for minimally invasive abdominal and thoracic surgery
- Laparoscopy
  - Techniques including gastropexy, ovariectomy, enteric biopsy, liver biopsy, cryptorchidectomy
- Principles of thoracoscopy and cystoscopy

A half-day practical session follows. Participants will be encouraged to undertake unfamiliar surgical procedures and to refine more familiar techniques under the guidance of the tutors. A list of possible procedures is provided, but participants are encouraged to choose from this list those procedures they would find most helpful to undertake, and to work collaboratively with other participants*. Possible procedures include:

- Surgical approaches to the thorax
- Placement of chest drains
- Lung lobectomy
- Surgical approach to the oesophagus

*It should be noted that practical courses may include a combination of demonstrations, video clips, display of equipment/consumables, models/simulators, and animal tissues. BSAVA is committed to the ethical sourcing of animal tissues used for postgraduate teaching, and whole dog cadavers will not necessarily be available.