

# Applied Surgical Sciences and Critical Care Course for MRCS Part B OSCE

**Date: 12<sup>th</sup> September 2013 (Thursday)**

**Time: 0825 – 1900 hrs;**

**Venue: C0.12, School of Biosciences, Sir Martin Evans Building, Cardiff University**

## Course Programme

**0815 – 0825 : Registrations**

### MORNING SESSION

**0825 – 0830 : Welcome, introduction and format (Mr Stuart Enoch)**

**0830 - 0930 : Cardiovascular System (Dr Jason Seewoodhary)**

- Cardiac pressure cycle
- Control of cardiac output
- Blood pressure and its control mechanisms
- Inotropes and their actions

**0930 - 1030 : Endocrine physiology (Dr Jason Seewoodhary)**

- Function of pituitary
- Basic physiology of thyroid and parathyroid glands
- Disorders of calcium metabolism
- Basic physiology of adrenal gland and glucocorticoids
- Glucose homeostasis and diabetes in surgery
- Hypothyroidism and hyperthyroidism
- Corticosteroids in surgery

**1030 - 1130 : Respiratory system (Dr Teresa Evans)**

- Normal ventilatory cycle
- Controls of ventilation
- Causes and management of post-operative respiratory failure
- Indications for ventilatory support and weaning off ventilator
- Intermittent positive pressure ventilation
- Acute (adult) respiratory distress syndrome
- Applied critical care physiology during the peri-operative period

**Coffee Break: 1130 – 1145 hrs**

- 1145 - 1215** : **General Physiological Principles 1 (Dr Paul Morgan)**
- Homeostasis, feedback loops
  - Applied acid-base balance
- 1215 - 1245** : **General Physiological Principles 2 (Dr Paul Morgan)**
- Resuscitation
  - Sepsis
  - Septic shock
- 1245 - 1300** : **Assessment and Management of Hypothermia (Dr Paul Morgan)**

**Lunch Break: 1300 – 1345**

### AFTERNOON SESSION

- 1350 - 1430** : **Gastrointestinal system (Dr Melvyn Jenkins-Welch)**
- Post-operative ileus
  - Nutrition
  - Re-feeding syndrome
- 1430 - 1500** : **General Physiological Principles 3 (Dr Melvyn Jenkins-Welch)**
- Bleeding
  - Coagulation
- 1500 - 1515** : **Principles of Epidural Anaesthesia/Assessment (Dr Melvyn Jenkins-Welch)**
- 1515 - 1550** : **Burns (Mr Stuart Enoch)**
- Assessment
  - Indications for referral
  - Pathophysiology and principles of management

**Coffee Break: 1550 – 1610 hrs**

- 1615 - 1715** : **Renal system (Dr Gareth Scholey)**
- Renal autoregulation
  - Renin-angiotensin system
  - Types and management of renal failure
  - Erythropoietin
- 1715 - 1745** : **Central nervous system (Dr Paul Morgan)**
- Cerebral autoregulation
  - Causes and management of raised intra-cranial pressure including space occupying lesions
  - Pain management
- 1745 – 1800** : **Structure of OSCE exam (Dr Paul Morgan)**
- 1800 – 1900** : **Critical care aspects of trauma and post-operative patients (Mr Stuart Enoch)**
- 1900 - 1915** : **Summary and Feedback**

**1915: END OF COURSE!**