

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

Date: 15<sup>th</sup> January (Thursday) 2015

Time: 0825 – 1915 hrs;

Venue: C01.13, School of Biosciences, Sir Martin Evans Building, Cardiff University

## Course Programme

0815 – 0825 : Registration

### MORNING SESSION

0820 – 0830 : Welcome, introduction and format (Mr Stuart Enoch)

0830 - 0900 : General Physiological Principles 1 (Dr Paul Morgan)

- Homeostasis, feedback loops
- Applied acid-base balance

0900 – 0930 : General Physiological Principles 2 (Dr Paul Morgan)

- Sepsis
- Septic shock

0930 - 1045 : 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

### Coffee Break: 1045 - 1105 hrs

1105 - 1135 : General Physiological Principles 3 (Dr Paul Morgan)

- Bleeding
- Coagulation/Anti-coagulation

1135 - 1150 : Principles of Epidural Anaesthesia/Assessment; Pain pathways (Dr Paul Morgan)

1150 - 1250 : Cardiovascular System (Dr Jason Seewoodhary)

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

**Lunch Break: 1250 - 1330**

## **AFTERNOON SESSION**

- 1340 - 1440** : **Endocrine physiology (Dr Jason Seewoodhary)**
- Functions 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
- 1440 - 1520** : **Burns (Mr Stuart Enoch)**
- Assessment
  - Indications for referral
  - Pathophysiology and principles of management
- 1525 - 1555** : **Central nervous system (Dr Paul Morgan)**
- Cerebral autoregulation
  - Causes and management of raised intra-cranial pressure including space-occupying lesions
  - Head Injury

**Coffee Break: 1600 - 1620 hrs**

- 1625 - 1655** : **Resuscitation, Temperature Regulation and Hypothermia (Dr Paul Morgan)**
- 1700 - 1750** : **Physiological Principles in the Management of Trauma (Mr Stuart Enoch)**
- 1830 – 1900** : **Essential Surgical Microbiology (Mr Stuart Enoch)**
- 1900 - 1915** : **Summary and Feedback**

**1900: END OF COURSE!**