





# Cardiff MRCS OSCE: Applied Surgical Sciences & Critical Care

In the final part of the MRCS exam, surgical trainees are expected to have a good working knowledge of general physiological principles as well as core knowledge of the physiology of specific systems and an understanding of their application in surgical practice.

This intensive one-day revision course provided the candidates with an overview of basic physiological principles and of the physiology of the respiratory, cardiovascular, renal, endocrine, gastrointestinal, and central nervous systems.

The interactive lectures were delivered in way which would help the candidates to answer the OSCE/viva stations in a structured, systematic and concise manner.

#### **Course Information**

Course date: 1st September 2016

Venue: School of Biosciences

Sir Martin Evans Building

Cardiff

Attendance: 28 Delegates

Aimed at: Delegates looking to take

their membership to the Royal College of Surgeons

Part B exam.

Course fee: £190.00



Surgical trainees can apply to be sponsored by ASIT to receive a bursary to attend this course.

### **Topics:**

- General physiological principles
- Acid-base imbalance (metabolic and respiratory acidosis/alkalosis) and their management
- Fluid balance and fluid replacement therapy
- Renal physiology
- Bleeding and coagulation
- Management of sepsis and septic shock
- Homeostasis and thermoregulation
- Hypothermia
- Principles of epidural anaesthesia
- Gastrointestinal system
- Cardiovascular system and critical care
- Endocrine physiology
- Neurophysiology and management of head injury
- Burns



# **Course Programme**

1300 - 1340

0815 - 0825	Registration			
MORNING SESSION				
0825 - 0830	Welcome, Introduction and Format (Prof S Enoch)			
0830 - 0900	General Physiological Principles 1 (Dr P Morgan)  • Homeostasis, feedback loops  • Applied acid-base balance			
0900 - 0930	General Physiological Principles 2 (Dr P Morgan)  • Sepsis  • Septic shock			
0930 - 1040	Respiratory System (Dr T 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			

1040 - 1100	Coffee Break
1100 - 1145	Central nervous system (Dr P Morgan)  Cerebral autoregulation  Causes and management of raised intra-cranial pressure including spaceoccupying lesions  Head Injury
1145 - 1230	<ul> <li>Management of Burns (Prof S Enoch)</li> <li>Assessment</li> <li>Indications for referral</li> <li>Pathophysiology and principles of management</li> </ul>
1230 - 1300	Physiological Principles in the Management of Trauma – Part 1 (Prof S End

Lunch Break

# **Course Programme**

## AFTERNOON SESSION

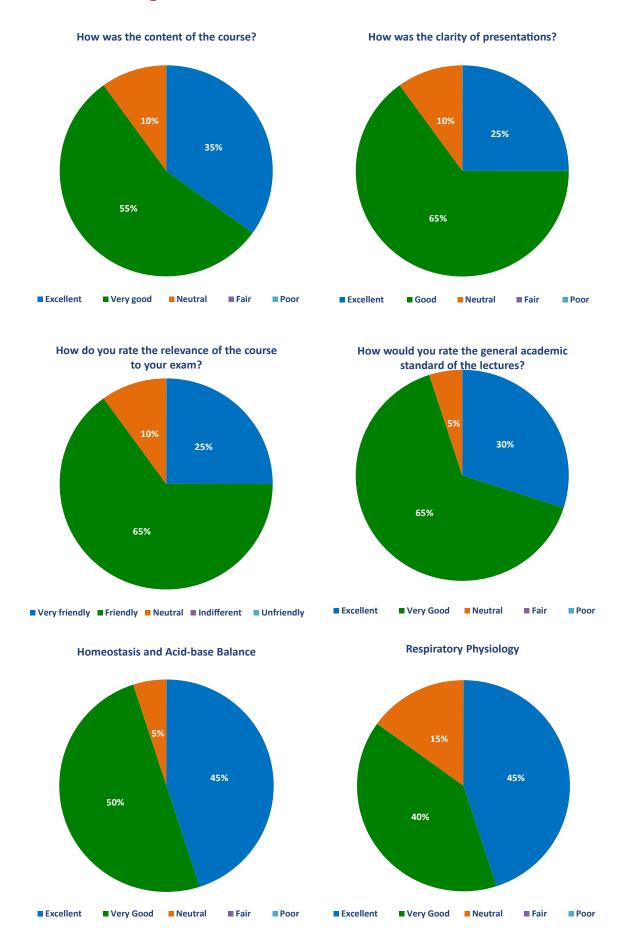
1345 - 1430	Physiological Principles in the Management of Trauma – Part 2 (Prof S Enoch)
1430 - 1500	Critical Care OSCE Scenarios to include other systems (Prof S Enoch)
1500 - 1530	Basic Science and Surgical Critical Care (Prof S Enoch)
1530 - 1550	Coffee Break
1550 - 1625	<ul><li>General Physiological Principles 3 (Dr P Morgan)</li><li>Bleeding</li><li>Coagulation/Anti-coagulation</li></ul>
1625 - 1700	Resuscitation, Temperature Regulation and Hypothermia (Dr P Morgan)
1700 - 1730	Principles of Epidural Anaesthesia/Assessment; Pain pathways (Dr P Morgan)
1730 - 1845	Surgical Microbiology (Prof S Enoch)
1845 - 1900	Summary and Feedback
1900	END OF COURSE.

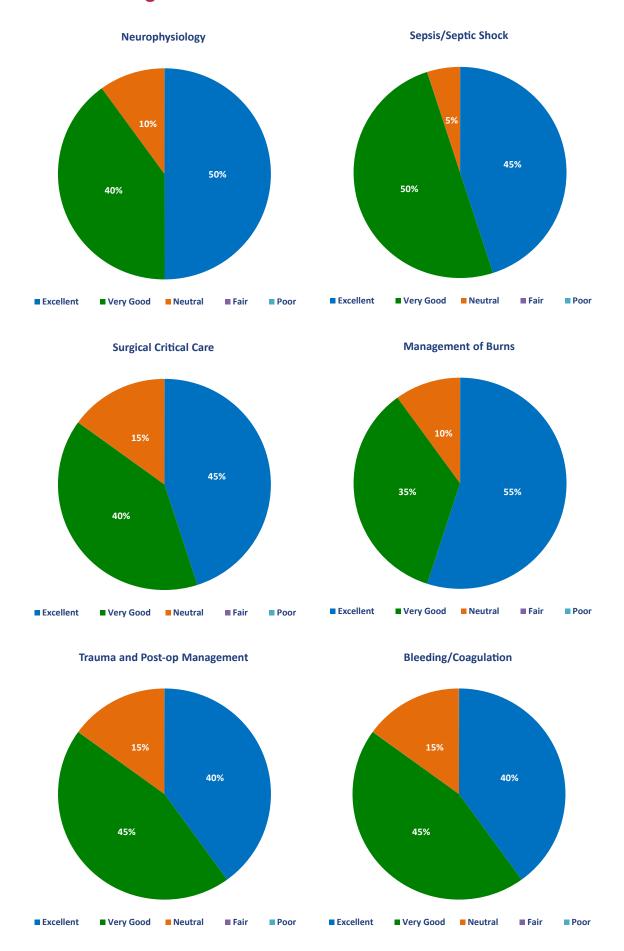
## **Faculty List**

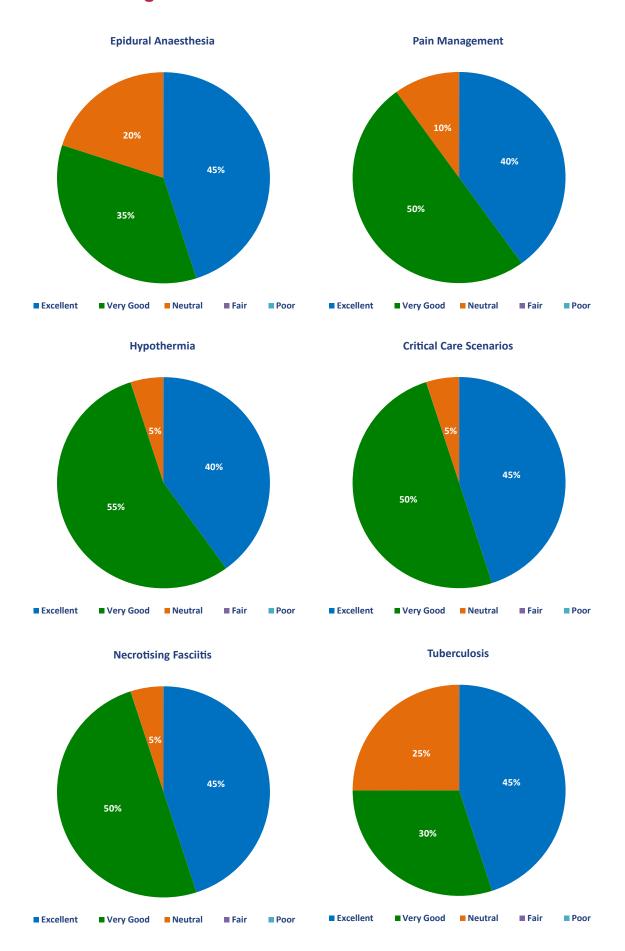
# **Dr Paul Morgan, FRCA Examiner – Royal College of Surgeons of England**Consultant Intensivist, Adult Critical Care University Hospital of Wales, Cardiff

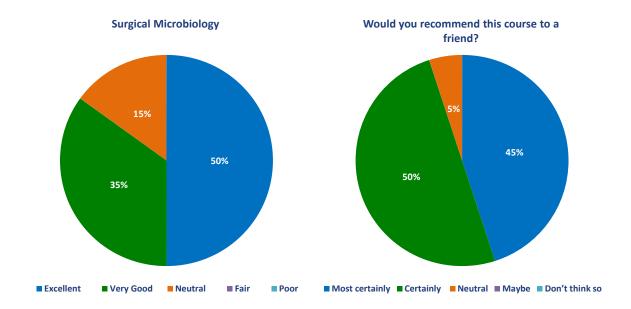
Professor Stuart Enoch, MB BS, PhD, PGCert (Med Sci), MRCSEd, MRCS (Eng) Senior Lecturer; Director of Education & Research Doctors Academy Group

**Dr Teresa Evans, FRCA**Consultant Anaesthetist
Royal Gwent Hospital, Newport









## **Individual Comments**

Excellent course with a good faculty and teaching in very clear simple words.
MA Queen Elizabeth Medical Centre, Birmingham
Anaesthetist who run the case scenarios with us was very concise, clear and made it more interesting.
MJ Morriston Hospital, Swansea
Busy day, but gave a good foundation of knowledge to consolidate prior to the exam.
RS Kettering General Hospital, Kettering
Good.
VC Northern General Hospital, Sheffield
Very helpful.
SB Cavan General Hospital, Ireland
I really enjoyed this part of the course. All tutors were knowledgeable and easy to approach with questions.
LL John Radcliffe Hospital, Oxford
Content was good.
AW University Hospital Waterford, Waterford, Ireland
Good.
VS St Helier Hospital, Carshalton
Great course.
SZ Leicester Royal Infirmary, Leicester

## Individual Comments

Good.	
	MC Aljala Hospita
Very good.	
	HA Addenbrooke's Hospital, Cambridge
Good.	
<i>P</i>	TA Kettering General Hospital, Kettering
Great course.	
	SR Hull Royal Infirmary, Hull
Very good course.	
	MU Royal London Hospital, London
Very good experience. Made many difficult concepts seem very s	simple.
Birmingha	AA am Heartlands Hospital, Birmingham



Doctors Academy is a UK-based International Non-Profit Organisation comprising of doctors, dentists and scientists that undertakes a diverse range of educational activities globally. The aim of the Academy is to disseminate information and exchange medical knowledge between professionals from diverse backgrounds working in a variety of healthcare settings. This is achieved by the provision of a number of attendance courses, publishing house, online resources and international events/ competitions.

### Courses (a selection):

#### **Undergraduate:**

- Final Year Medicine and Surgical Revision Courses
- Training the Clinical Anatomy Trainer
- Clinical Anatomy as Applied to Trauma and Emergency Medicine
- Surgical Anatomy of Important Operative Procedures
- Future Surgeons: Key Skills (RCSEd delivered)
- Structured Introduction to Surgical Skills

#### Postgraduate:

- MRCS Part A
- MRCEM Part A
- MRCS Part B OSCE
- DOHNS: Intensive Revision & OSCE
- Intercollegiate Basic Surgical Skills (RCSEd delivered)
- MRCP PACES Part 2
- FRCS (General Surgery) Exit Exam
- Cadaveric Ultrasound-Guided Musculoskeletal Intervention Course
- Ultrasound-Assisted Botulinum Toxin Injection for Neuromuscular Disorders
- Live Advanced Laparoscopic Colorectal Course



#### Forthcoming key events:

- International Medical Summer School Manchester, 31st July to 4th August 2017
- International Academic and Research Conference Manchester, 5th August 2017
- World University Anatomy Challenge Manchester, 4th August 2017

#### **Publications**



## publications.doctorsacademy.org

#### **World Journal of Medical Education & Research**

Peer-reviewed academic journal with ISSN.

No fee to view, read and download articles No subscription charges No submission fees No manuscript processing fee No publishing fee No cost to read, write or publish!

wjmer.co.uk

#### **Online Revision Resources**

DoctorExams consists of 1000s of questions with detailed explanations in MCQ, EMQ, SBA and SAQ formats. Questions are written by the Doctors Academy group of experienced clinicians and clinical academics, with mock exams and feedback on performance included to aid a candidate's focused revision of topics. Based on past exams, these questions are carefully crafted to suit the requirements of undergraduate students & postgraduate trainees undertaking relevant speciality exams.

#### Resources for:

- Medical Students

- General Surgery Exams

- Dental Students

- Plastic Surgery Exams

- International Entrance Exams

- DOHNS Exams

- MRCS Exams

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