





# 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: 19th January 2017

Venue: School of Biosciences

Sir Martin Evans Building

Cardiff

Attendance: 35 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**

0815 - 0825	Registration		
MORNING SESSION			
0825 - 0830	Welcome, Introduction and Format (Prof 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 - 1040	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		

1040 - 1100	Coffee Break
1105 - 1150	<ul> <li>Central nervous system (Dr Paul Morgan)</li> <li>Cerebral autoregulation</li> <li>Causes and management of raised intra-cranial pressure including spaceoccupying lesions</li> <li>Head Injury</li> </ul>
1150 - 1245	Cardiology (Tom Combellack)  Cardiac cycle  JVP  STEMI  Arrythmias  Pre-op aspects including murmers  Valvular heart disease  CCF

1245 - 1320	Lunch Break

## **Course Programme**

## **AFTERNOON SESSION**

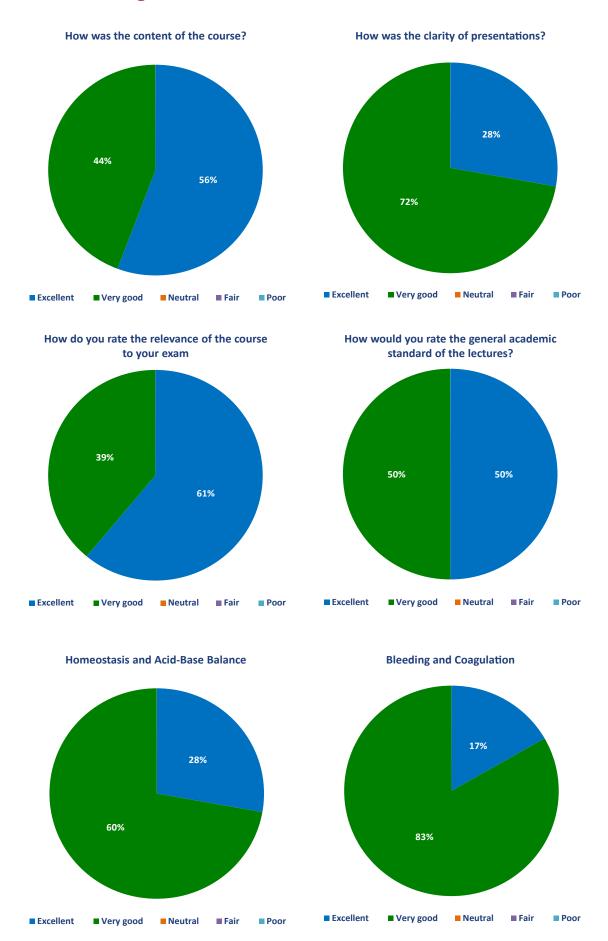
1345 - 1410	Surgical ITU Physiology and Basics of CTh Surgery (Tom Combellack)
	Cardiothoracic surgery basics including CABG
	Valve replacement surgeries
	Lung cancer
	Pnemonectomies
	Thoracic trauma
1410 - 1440	Physiological Principles in the Management of Trauma – Part 1
	(Lara Jayatilaka)
1440 - 1510	Physiological Principles in the Management of Trauma – Part 2
	(Lara Jayatilaka)
1510 - 1530	Basic Science and Surgical Critical Care - Part 1 (Stuart Enoch)
1530 - 1550	Coffee Break
1550 - 1630	Management of Burns (Stuart Enoch)
	Assessment
	Indications for referral
	Pathophysiology and principles of management
1630 - 1700	General Physiological Principles 3 (Paul Morgan)
	Bleeding
	Coagulation/Anti-coagulation
1700 - 1730	Resuscitation, Temperature Regulation and Hypothermia (Paul Morgan)
1730 - 1750	Principles of Epidural Anaesthesia/Assessment; Pain pathways (Paul Morgan)
1800 - 1820	Short topics in Critical Care (Stuart Enoch)
4000	
1830	END OF COURSE!

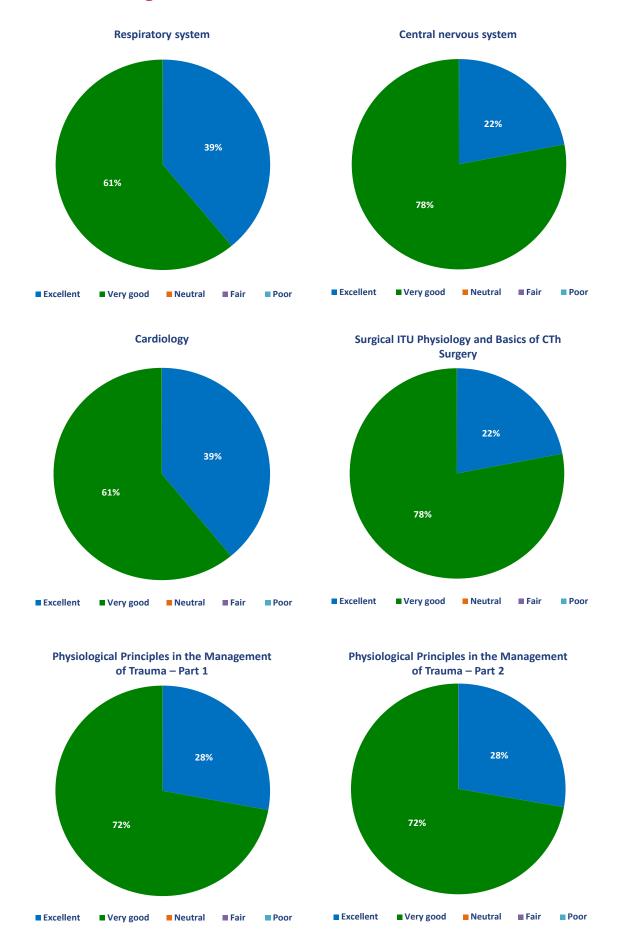
## **Faculty List**

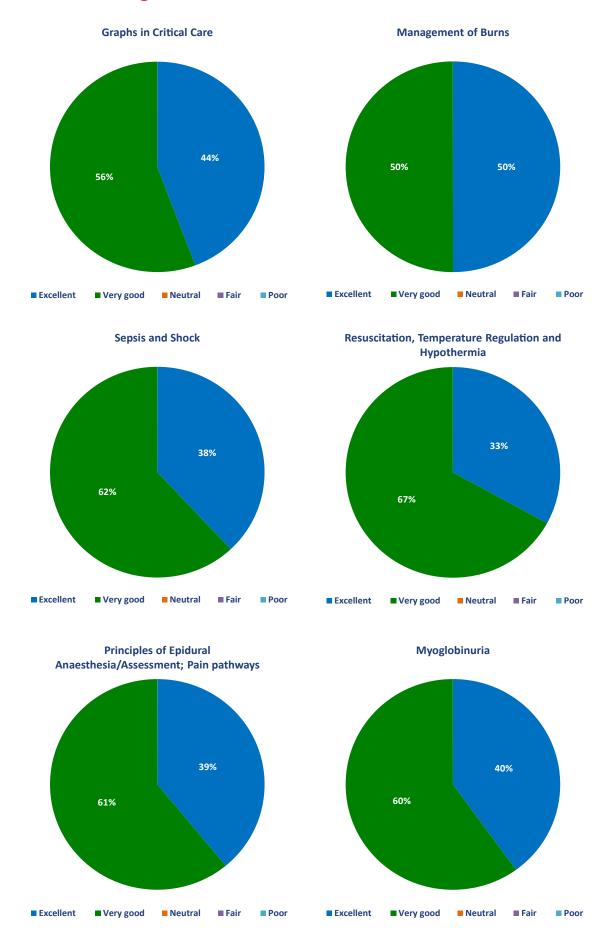
## **Dr Paul Morgan, FRCA Examiner – Royal College of Surgeons of England**Consultant Intensivist, Adult Critical Care University Hospital of Wales, Cardiff

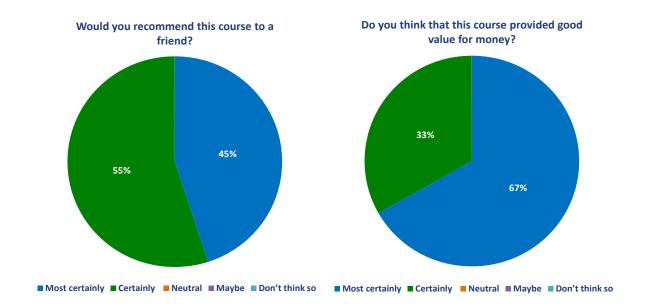
Professor Stuart Enoch, MB BS, PhD, PGCert (Med Sci), MRCSEd, MRCS (Eng) Senior Lecturer; Director of Education & Research Doctors Academy Group

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









## **Individual Comments**

Very nicely organised, very good presentations.	
	FL Queen Elizabeth Medical Centre, Birmingham
Very good.	
	AA Queen Elizabeth Medical Centre, Birmingham
Excellent.	
	NA Norfolk and Norwich University Hospital, Norwich
Excellent.	
	MU Royal Sussex County Hospital, Brighton
Very good course.	
	WS Wrexham Maelor Hospital, Wrexham
Impressed.	
	OF Royal Brompton Hospital, London
Worth attending it.	
	MU University hospital Galway, Ireland
Excellent.	
	AS John Radcliffe Hospital, Oxford
Good.	
	MH Newham General Hospital, London

## **Individual Comments**

High professionalism, friendly environment, very relevant to the exam.

VP

Royal National Orthopaedic Hospital, Stanmore

Good, knowledgeable faculty, relevant.

ΑT

Morriston Hospital, Swansea

It was overall a very comprehensive cover of important topics.

NG

Midland Regional Hospital Tullamore Co.Offaly



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### 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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