

**Cardiff MRCS OSCE Course:  
Applied Surgical Sciences  
& Critical Care**

**Feedback - 23<sup>rd</sup> April 2014**

## Cardiff MRCS OSCE: Applied Surgical Sciences & Critical Care

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

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

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

### Course Information

<b>Course date:</b>	<b>23<sup>rd</sup> April 2014</b>
<b>Venue:</b>	<b>Sir Martin Evans Building Cardiff University, UK</b>
<b>Attendance:</b>	<b>21 Delegates</b>
<b>Aimed at:</b>	<b>Delegates looking to take their membership to the Royal College of Surgeons Part B exam.</b>
<b>Course fee:</b>	<b>£180.00</b>



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 & respiratory acidosis/alkalosis) & their management
- Fluid balance & fluid replacement therapy
- Renal physiology
- Bleeding & Coagulation
- Management of sepsis & septic shock
- Homeostasis & thermoregulation
- Hypothermia
- Principles of epidural anaesthesia
- Gastrointestinal system
- Cardiovascular system & critical care
- Endocrine physiology
- Neurophysiology & management of head injury
- Burns



## Course Programme

**0815 - 0840**                      **Registration, Welcome & Introduction**

**0840 - 0915**                      **General Physiological Principles 1**

- Homeostasis, feedback loops
- Applied acid-base balance

**0915 - 0945**                      **General Physiological Principles 2**

- Sepsis
- Septic shock

**0945 - 1100**                      **Respiratory System**

- Normal ventilatory cycle
- Controls of ventilation
- Causes & management of post-operative respiratory failure.
- Indications for ventilatory support & weaning off ventilator
- Intermittent positive pressure ventilation
- Acute (adult) respiratory distress syndrome

**1100 - 1115**

**Break for Refreshments**

**1115 - 1150**                      **Gastrointestinal System**

- Post-operative ileus
- Nutrition
- Re-feeding syndrome

**1150 - 1230**                      **General Physiological Principles 3**

- Bleeding
- Coagulation / Anti-coagulation

**1230 - 1300**                      **Principles of Epidural Anaesthesia / Assessment of Pain Pathways**

**1300 - 1340**

**Lunch**

## Course Programme

1340 - 1420

### Burns

- Assessment
- Indications for referral
- Pathophysiology & principles of management

1420 - 1520

### Cardiovascular System

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

1520 - 1625

### Endocrine Physiology

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

1100 - 1115

Break for Refreshments

1645 - 1720

### Central Nervous System

- Central auto-regulation
- Causes & management of raised intra-cranial pressure including space-occupying lesions
- Head Injury

1720 - 1745

### Resuscitation, Temperature Regulation & Hypotherm

1745 - 1845

### Renal System

- Renal auto-regulation
- Renin-angiotensin system
- Types & management of renal failure
- Erythropoietin

1900

### Summary, Feedback & 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 Jason Seewoodhary, BSc (Hons), MBBCh (Hons), MRCP (UK)**

Speciality Registrar in Endocrinology

University Hospital of Wales, Cardiff

**Dr Teresa Evans, FRCA**

Consultant Anaesthetist

Royal Gwent Hospital, Newport

**Dr Melvyn Jenkins-Welch, FRCA**

Consultant Anaesthetist

University Hospital of Wales, Cardiff

**Dr Gareth Scholey, MRCP, FRCA**

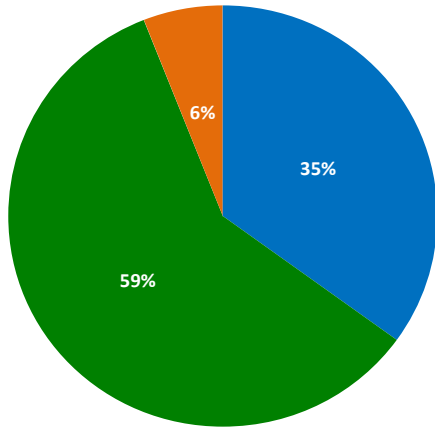
Consultant in Intensive Care Medicine

Adult Critical Care

University Hospital of Wales, Cardiff

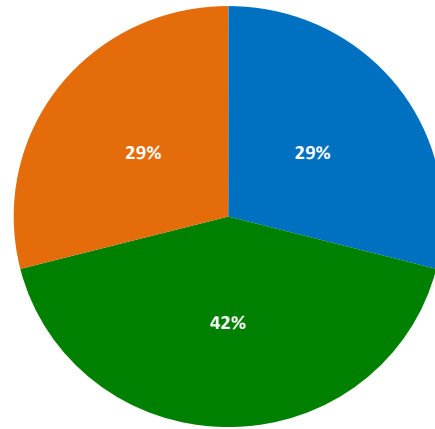
# Overall Teaching Feedback

How was the content of the course?



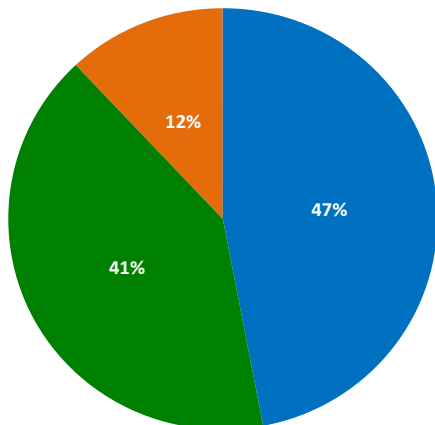
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How was the clarity of presentations?



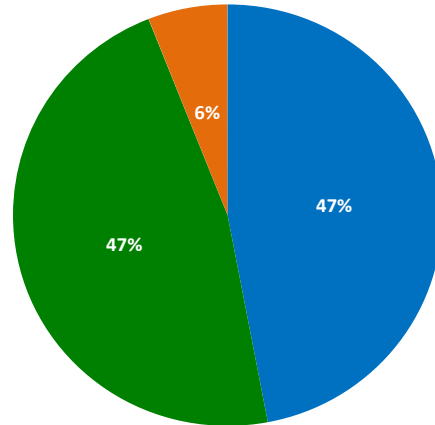
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How do you rate the relevance of the course to your exam?



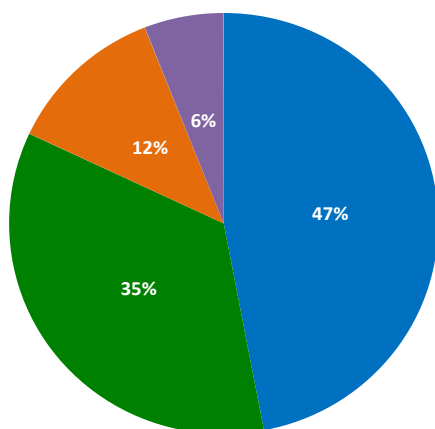
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How would you rate the general academic standard of the lectures?



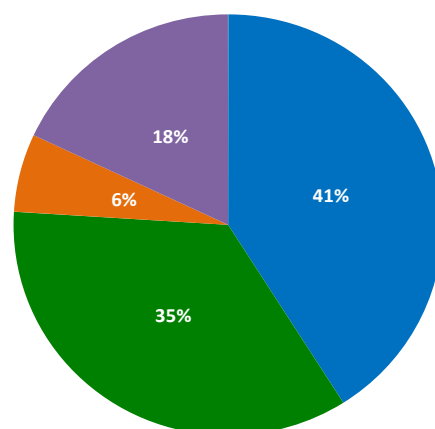
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

CVS Physiology



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

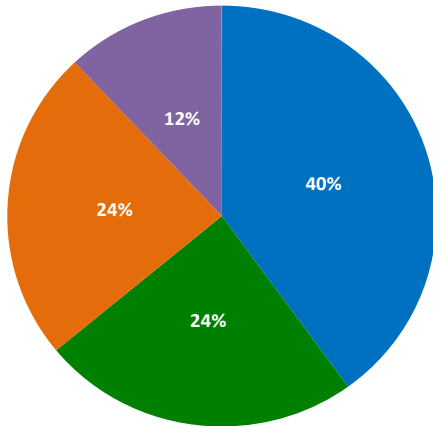
Endocrine Physiology



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

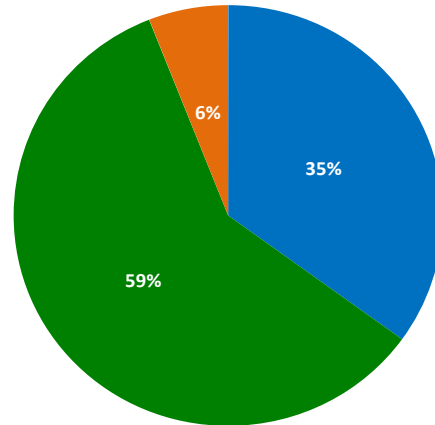
# Overall Teaching Feedback

Respiratory Physiology



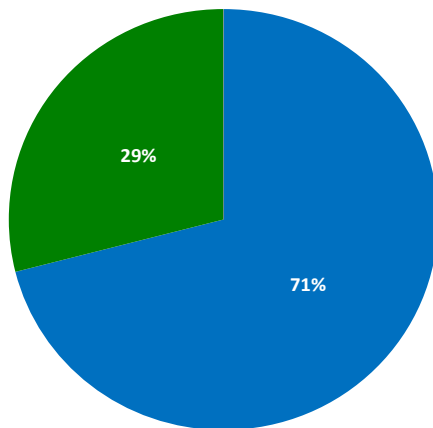
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Homeostasis & Acid-base balance



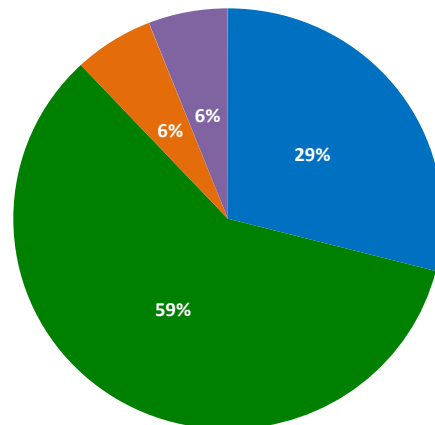
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Sepsis/Septic Shock



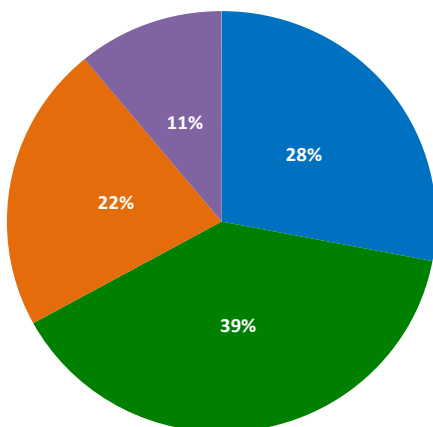
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Hypothermia



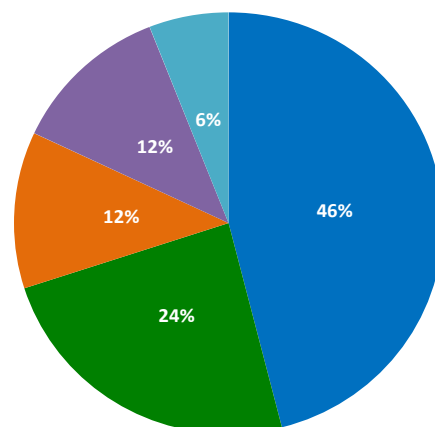
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Gastrointestinal System



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

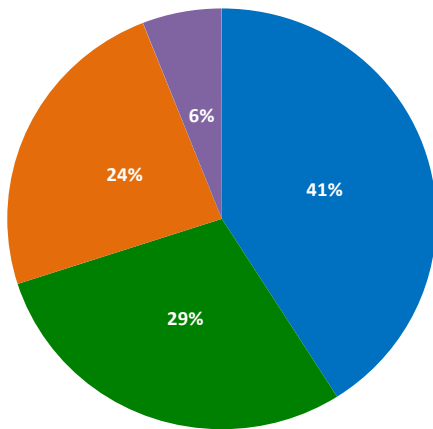
Bleeding/Coagulation



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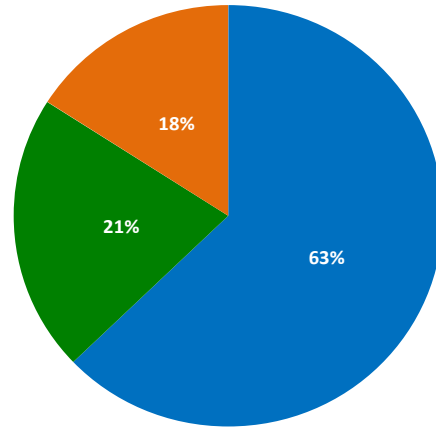
# Overall Teaching Feedback

Epidural anaesthesia



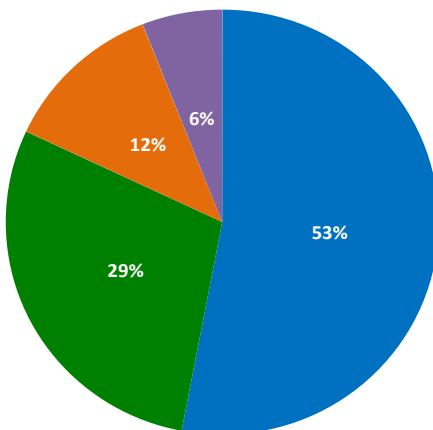
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Management of burns



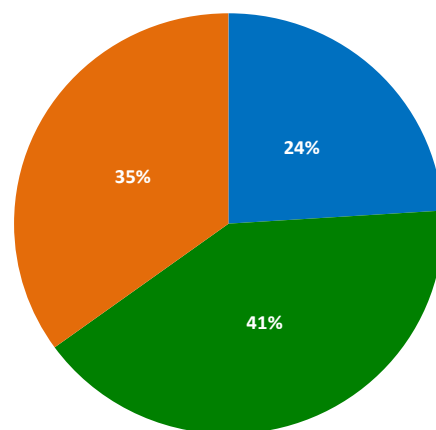
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Renal Physiology



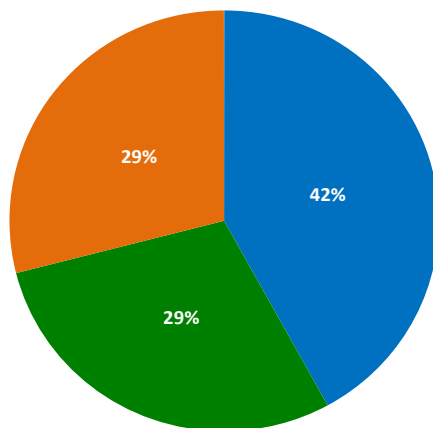
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Central Nervous System



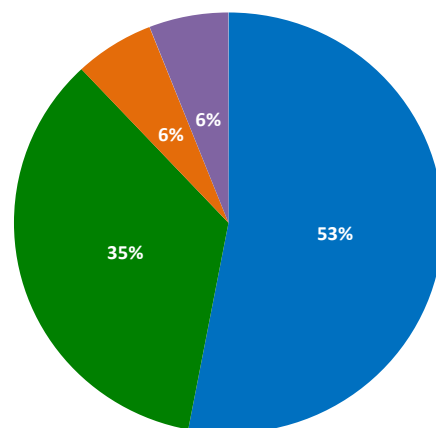
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Pain management



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Trauma and Post-op scenarios

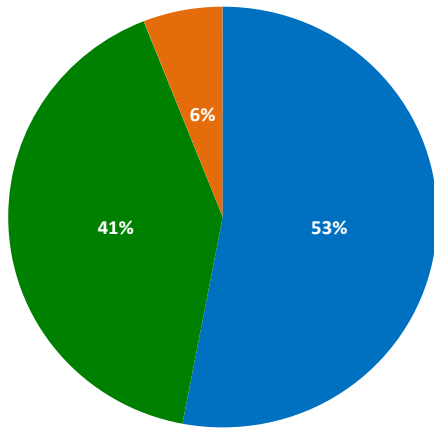


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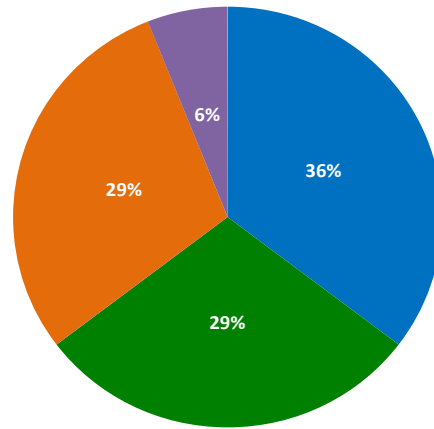


# Overall Teaching Feedback

Would you recommend this course to a friend?



Do you think that this course provided good value for money?



■ Most certainly ■ Certainly ■ Neutral ■ Maybe ■ Don't think so ■ Most certainly ■ Certainly ■ Neutral ■ Maybe ■ Don't think so

## Individual Comments

Very useful.

**JM**  
*Wythenshawe Hospital, Manchester, UK*

The best MRCS course I have attended.

**HD**  
*Royal London Hospital, London, UK*

Well programmed course and full use of time.

**MA**  
*Nottingham City Hospital, Nottingham, UK*

Relevant to exam syllabus.

**SM**  
*University Hospital of Wales, Cardiff, UK*

Great.

**TB**  
*Derriford Hospital, Plymouth, UK*

Very good.

**AP**  
*Princess Royal University Hospital, Orpington, UK*

Excellent.

**YM**  
*Royal Blackburn Hospital, Blackburn, UK*

## Individual Comments

Very good, better than I expected.

**TM**

***Withybush General Hospital, Haverfordwest, UK***

Overall good course but some lectures such as Bleeding, CNS pathology, pain management were not exam focussed. They felt like university lectures rather than information that is taught on an exam preparation course.

**AM**

***Chelsea and Westminster Hospital, London, UK***

Great Course. Helped me feel more confident.

**EE**

***Wythenshawe Hospital, Manchester, UK***

Well organised course. Good venues/food. Very good and helpful staff (Thanks Chloe). Clinical examinations day was particularly useful, especially spine and shoulder examination (the Reg was clearly very experienced), same for the Hip and Knee (Mr Tandon made it really easy), Abdominal examination (again reg was very experienced and showed how to approach abdo examination for the exam in systematic way). Great station on telephone conversation with ITU consultant, was very helpful to hear advice from real ITU cons to calibrate one's performance. One day intensive anatomy course was just great! Prof Enoch and lady who taught skull base/chest/solid organs were very very helpful, managed to highlight a lot of important / relevant subjects for MRCS B. Definitely feel more confident now and know what should be improved in last weeks before the exam. Overall I really liked the course. Hope Doctors Academy will continue to organise such a great courses.

**IR**

***St George's Hospital, London, UK***



# DOCTORS ACADEMY

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Doctors Academy is an 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, 1<sup>st</sup> - 5<sup>th</sup> August 2016*
- **International Academic and Research Conference**  
*Manchester, 6<sup>th</sup> August 2016*
- **World University Anatomy Challenge**  
*Manchester, 5<sup>th</sup> August 2016*

## Publications



[publications.doctorsacademy.org](http://publications.doctorsacademy.org)

## World Journal of Medical Education & Research



Peer-reviewed academic journal  
with ISSN.

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- No submission fees
- No manuscript processing fee
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[wjmer.co.uk](http://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
- Dental Students
- International Entrance Exams
- MRCS Exams
- General Surgery Exams
- Plastic Surgery Exams
- DOHNS Exams

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