

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

**Feedback - April 2015**

## 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>16<sup>th</sup> April 2015</b>
<b>Venue:</b>	<b>Sir Martin Evans Building Cardiff University, UK</b>
<b>Attendance:</b>	<b>19 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 - 0825	Registration
0825 - 0830	Welcome - <b>Mr Stuart Enoch</b>
0830 - 0900	General Physiological Principles, Part 1 - <b>Dr Paul Morgan</b> <ul style="list-style-type: none"><li>- Homeostasis &amp; feedback loops.</li><li>- Applied acid-base balance.</li></ul>
0900 - 0930	General Physiological Principles, Part 2 - <b>Dr Paul Morgan</b> <ul style="list-style-type: none"><li>- Sepsis.</li><li>- Septic shock.</li></ul>
0940 - 1045	Respiratory system - <b>Dr Teresa Evans</b> <ul style="list-style-type: none"><li>- Normal ventilatory cycle.</li><li>- Controls of ventilation.</li><li>- Causes &amp; management of post-operative respiratory failure.</li><li>- Indications for ventilatory support and weaning off ventilator.</li><li>- Intermittent positive pressure ventilator.</li><li>- Acute (adult) respiratory distress syndrome.</li></ul>
1045 - 1100	Coffee Break
1100 - 1135	General Physiological Principles, Part 3 - <b>Dr Paul Morgan</b> <ul style="list-style-type: none"><li>- Bleeding.</li><li>- Coagulation / Anti-coagulation.</li></ul>
1135 - 1150	Principles of Epidural Anaesthesia / Assessment; Pain Pathways - <b>Dr Paul Morgan</b>
1150 - 1215	Resuscitation, Temperature Regulation & Hypothermia - <b>Dr Paul Morgan</b>
1215 - 1255	Management of Burns - <b>Mr Stuart Enoch</b> <ul style="list-style-type: none"><li>- Assessment.</li><li>- Indications for referral.</li><li>- Pathophysiology &amp; principles of management.</li></ul>

1255 - 1330

Lunch

## Course Programme

**1330 - 1435** Endocrine Physiology - **Dr Jason Seewoodhary**

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

**1435 - 1530** Renal System - **Dr Jason Seewoodhary**

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

**1530 - 1545**

**Coffee Break**

**1545 - 1645** Cardiovascular System - **Mr Joe Thekkudan**

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

**1645 - 1730** Critical Care in Surgery - **Mr Joe Thekkudan**

**1730 - 1830** Physiological Principles in the Management of Trauma - **Mr Stuart Enoch**

**1830 - 1915** Essential Surgical Microbiology - **Mr Stuart Enoch**

**1915 - 1930** Summary & Feedback

**1930** 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

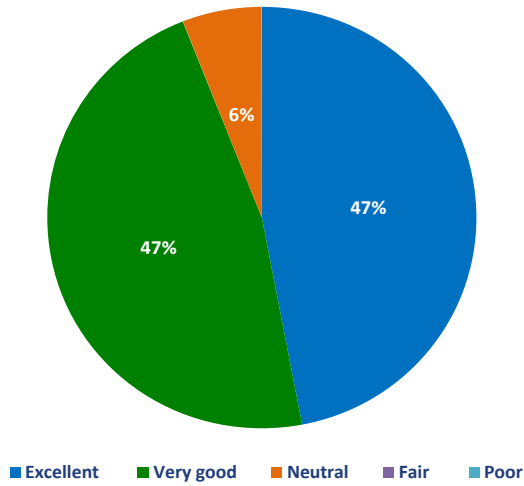
**Mr Joe Thekkudan, FRCSEd**

Registrar in Cardiothoracic surgery

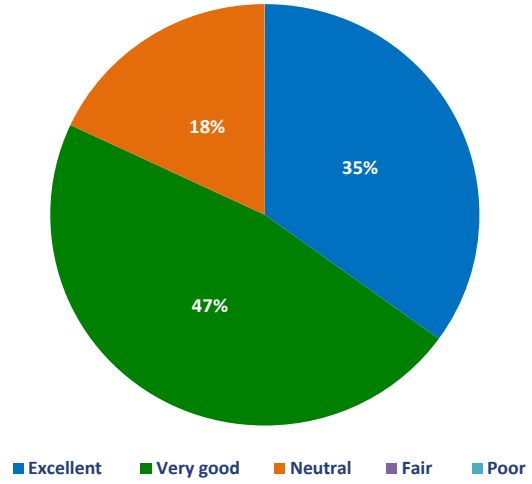
New Cross Hospital, Wolverhampton

# Overall Teaching Feedback

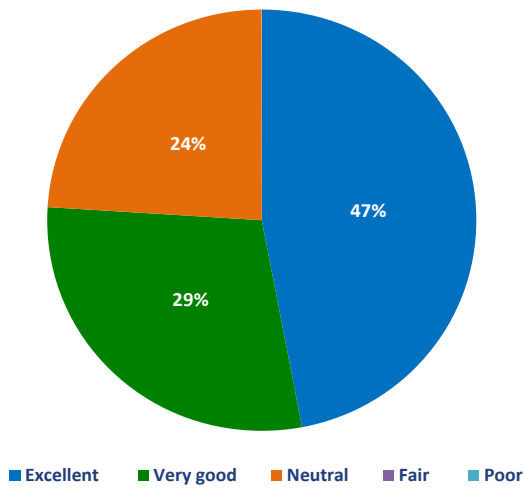
How was the content of the course?



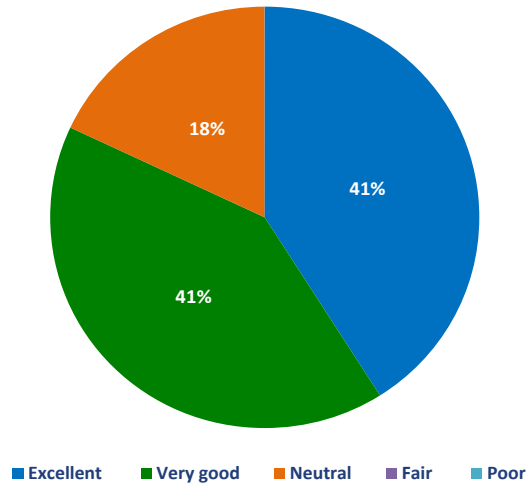
How was the clarity of presentations?



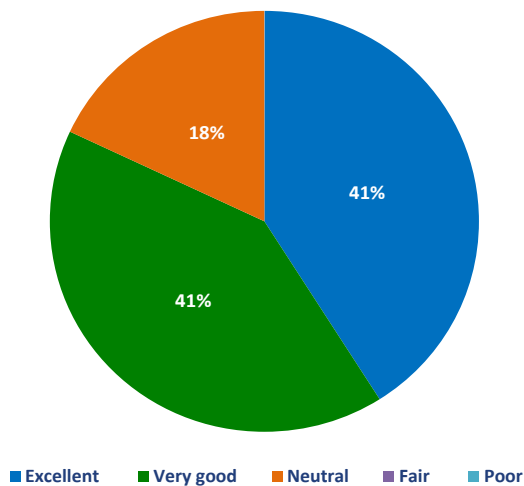
How do you rate the relevance of the course to your exam?



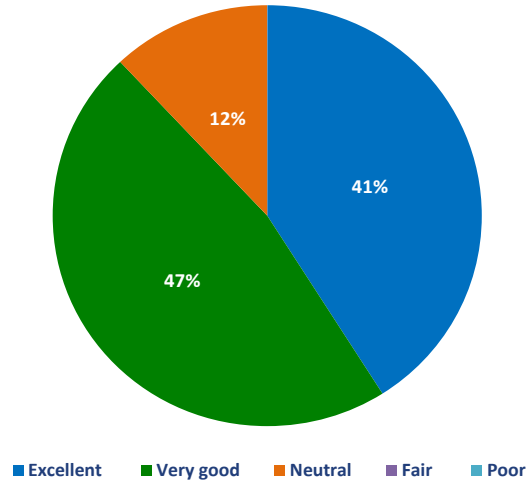
How would you rate the general academic standard of the lectures?



Trauma and Post-op Management

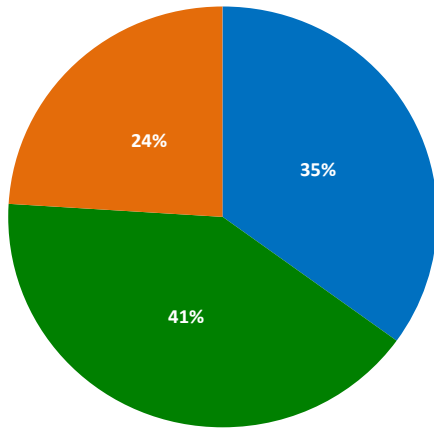


Respiratory Physiology



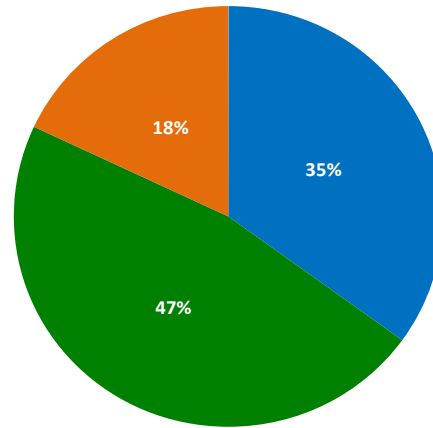
# Overall Teaching Feedback

Fracture Neck of femur



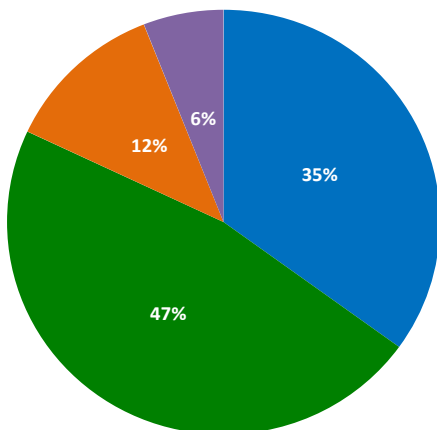
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Head Injury



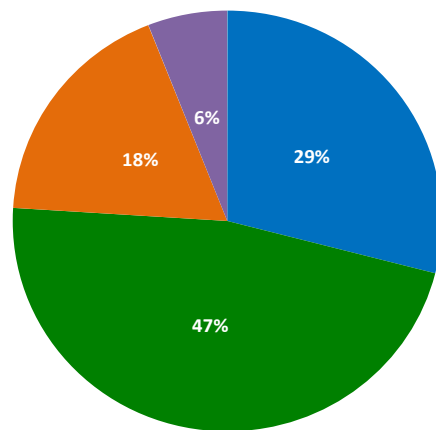
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Management of Burns



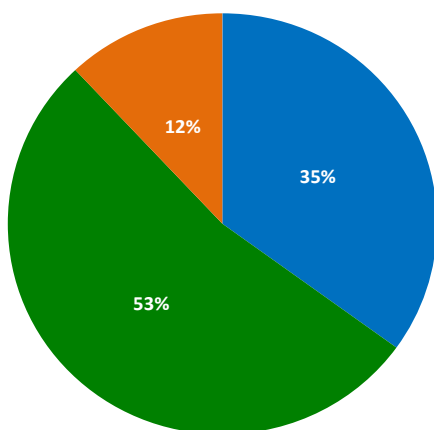
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Surgical Microbiology



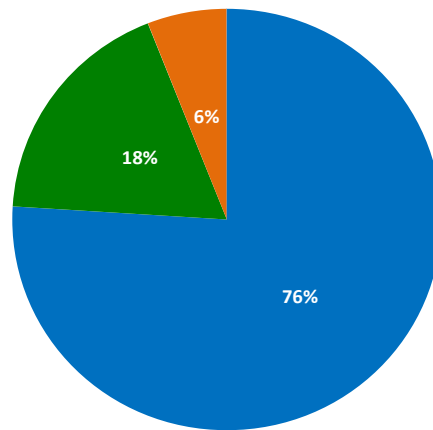
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Homeostasis and Acid-base balance



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

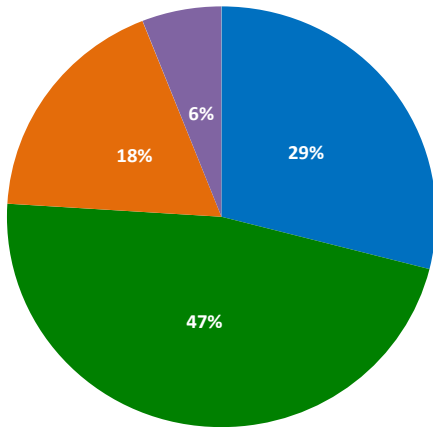
Sepsis/Septic Shock



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

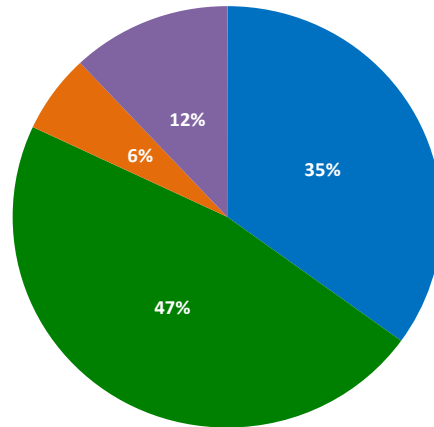
# Overall Teaching Feedback

Bleeding/Coagulation



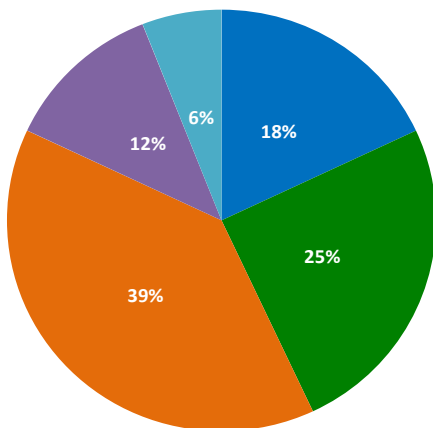
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Epidural Anaesthesia



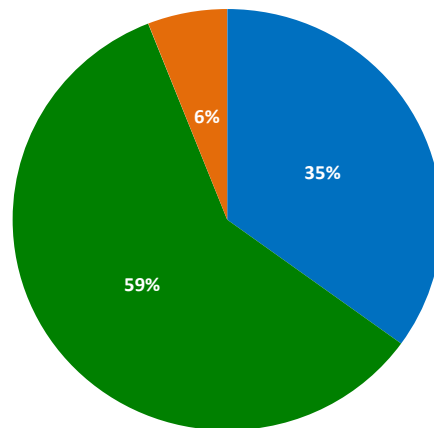
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Pain Management



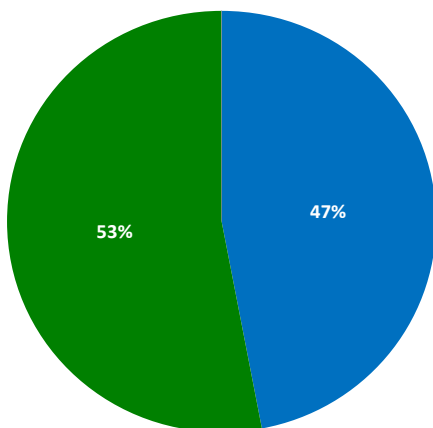
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Hypothermia



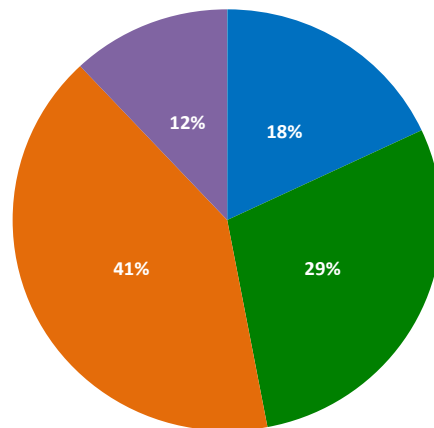
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Cardiovascular System



■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Surgical Critical Care

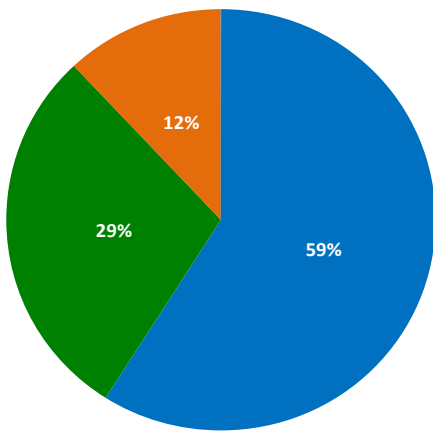


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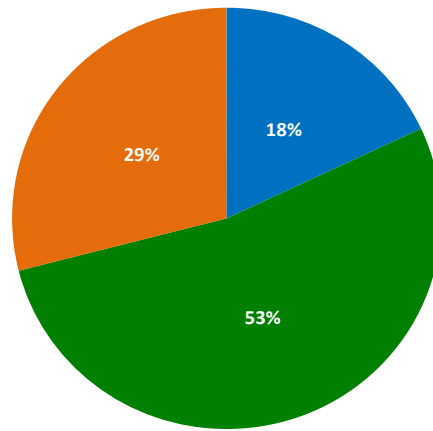


# Overall Teaching Feedback

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

Information overload but in a systematic fashion. Relevant course material.

**NH**

*Leicester General Hospital, Leicester, United Kingdom*

Excellent.

**JB**

*Royal Preston Hospital, Preston, United Kingdom*

Very organised. Covered all the broad contents. Very helpful.

**GS**

*Wythenshawe Hospital, Manchester, United Kingdom*

Excellent overall. Lecturer's were great and very kind. Very glad I went to this!

**CC**

*National Hospital for Neurology & Neurosurgery, London, United Kingdom*

Overall very good and relevant.

**HP**

*Ysbyty Gwynedd, Bangor, United Kingdom*

The content of the course was good and relevant. The presentations were clear. Will be recommending it to others preparing for the exam.

**AR**

*Royal Derby Hospital, Derby, United Kingdom*

Excellent course and faculty. Good quality presentations. Relevant for exam preparation.

**SH**

*Wrexham Maelor Hospital, Wrexham, United Kingdom*



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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, 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



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## 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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