



# DOCTORS ACADEMY

BETTER EDUCATION. BETTER HEALTH.

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

**Feedback - September 2020**

# Cardiff MRCS OSCE Course: Applied Surgical Sciences and Critical Care

In the final part of the MRCS exam, 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 provided the candidates with an overview of basic physiological principles and the physiology of the respiratory, cardiovascular, renal, endocrine, gastrointestinal, and central nervous systems.

The course was delivered using a series of interactive lectures with an OSCE focus using OSCE scenarios. All major areas as stipulated in the MRCS Part B syllabus were covered.

## Course Information

<b>Course Date:</b>	<b>10<sup>th</sup> September 2020</b>
<b>Venue:</b>	<b>School of Biosciences, Cardiff University, Cardiff</b>
<b>Attendance:</b>	<b>39 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>£190.00</b>

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

## Topics:

- General Physiological Principles
- Cardiovascular System
- Respiratory System
- Endocrine System
- Renal System
- Central Nervous System
- Gastrointestinal System
- Burns
- Management of Patients Undergoing Surgery
- Management of Trauma
- Surgical Microbiology



# Course Programme

0815 - 0820      **Registration**

## MORNING SESSION

0820 - 0830      **Welcome, Introduction and Format (Prof Stuart Enoch)**

0830 - 0920      **Physiological Principles in the Management of Trauma (Prof Stuart Enoch)**

- Long bone fractures
- Fracture neck of femur
- Pelvic fractures
- Polytrauma
- Hypovolemic shock and management

0920 - 1030      **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

1030 - 1045

**Coffee Break**

1055 - 1125      **General Physiological Principles 1 (Dr Paul Morgan)**

- Homeostasis, feedback loops
- Applied acid-base balance

1125 - 1155      **General Physiological Principles 2 (Dr Paul Morgan)**

- Sepsis
- Septic shock

1200 - 1300

**OSCE Discussion and Lunch**

# Course Programme

## EARLY AFTERNOON SESSION

- 1300 - 1340**      **Management of Major Burns (Prof Stuart Enoch)**
- Assessment
  - Pathophysiology and principles of management
  - Inhalation burns; fluids and nutrition
  - Indications for referral
- 1340 - 1410**      **Fluid and Renal Physiology (Prof Stuart Enoch)**
- 1410 - 1425**      **Rhabdomyolysis (Prof Stuart Enoch)**
- 1430 - 1530**      **Spinal Cord Injuries and Cord Syndromes (Prof Stuart Enoch)**
- Vertebral fractures
  - Cord compression; conus medullaris and cauda equina syndrome
  - Spinal and neurogenic shock
  - Autonomic nervous system and bladder dysfunction
  - Spinal cord lesions and vascular conditions
- 1530 - 1600**      **Calcium Metabolism and Its Role in Surgery (Prof Stuart Enoch)**

**1600 - 1615**      **Coffee Break**

## LATE AFTERNOON SESSION

- 1615 - 1645**      **General Physiological Principles 3 (Dr Paul Morgan)**
- Bleeding
  - Coagulation/Anti-coagulation
- 1645 - 1715**      **General Physiological Principles 4 (Dr Paul Morgan)**
- Resuscitation
  - Temperature regulation
  - Hypothermia
- 1715 - 1745**      **General Physiological Principles 5 (Dr Paul Morgan)**
- Principles of epidural anaesthesia/assessment
  - Pain pathways
  - Pre-op assessment
- 1745 - 1815**      **Central Nervous System (Dr Paul Morgan)**
- Cerebral autoregulation
  - Causes and management of raised intra-cranial pressure
  - Management of head injury

## Course Programme

<b>1830 - 1915</b>	<b>Infection, Surgical Microbiology and Scenarios in Surgical Critical Care (Prof Stuart Enoch)</b> <ul style="list-style-type: none"><li>• Tuberculosis</li><li>• Necrotising fasciitis</li><li>• Compartment syndrome</li><li>• Nerve injuries</li><li>• Action potentials</li><li>• Bilirubin metabolism</li></ul>
<b>1915</b>	<b>END OF COURSE!</b>

## 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, MBBS, MRCSEd, MRCS (Eng), PGCert (Med Sci), PhD**

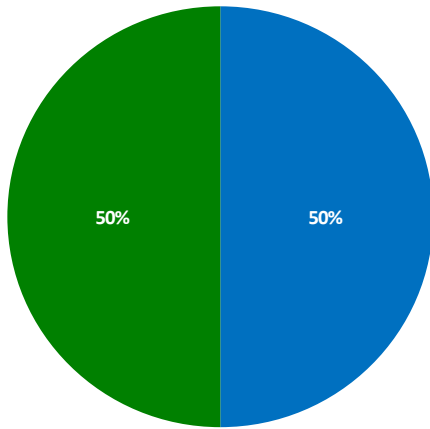
Professor, Higher Surgical Education  
Doctors Academy

**Dr Teresa Evans, FRCA**

Consultant Anaesthetist  
Royal Gwent Hospital, Newport

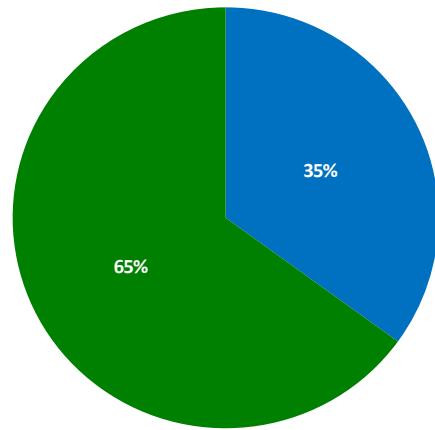
# Overall Feedback

How was the content of the course?



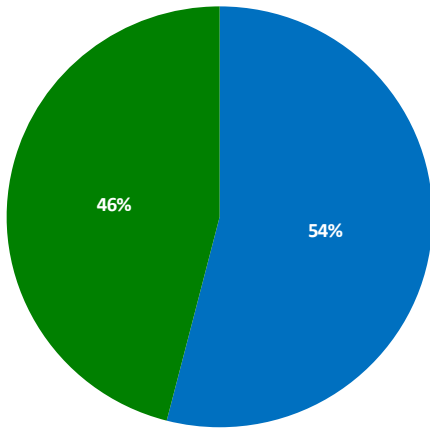
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

How was the clarity of presentations?



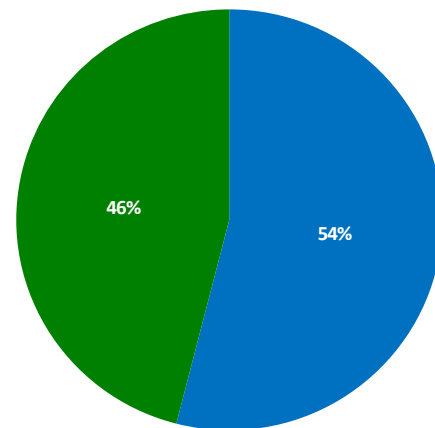
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

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



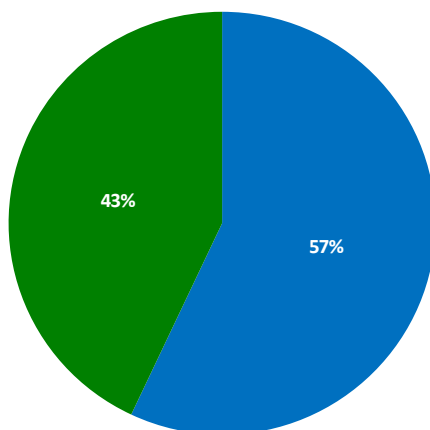
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

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



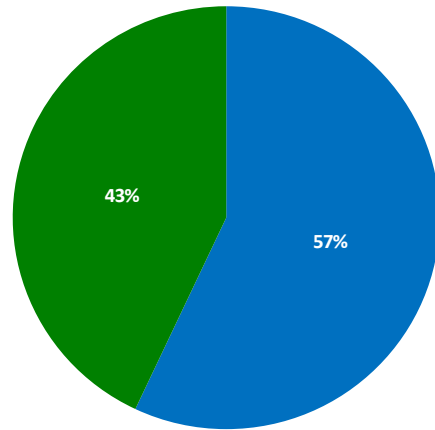
■ Excellent ■ Very good ■ Neutral ■ Fair ■ Poor

Overview of Management of Trauma



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

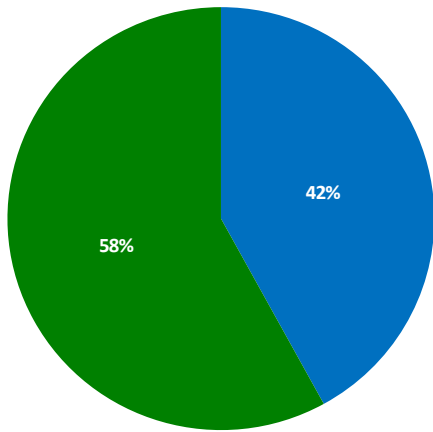
Hypovolemic shock and management



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

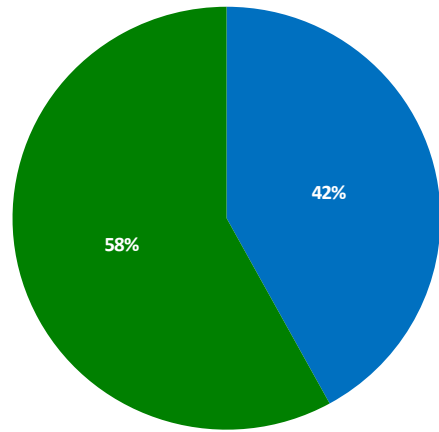
# Overall Feedback

Management of massive haemorrhage



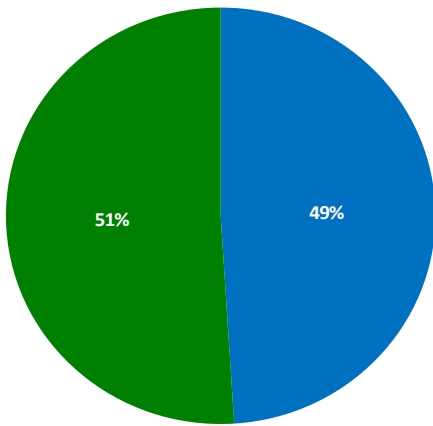
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Normal ventilatory cycle and controls of ventilation



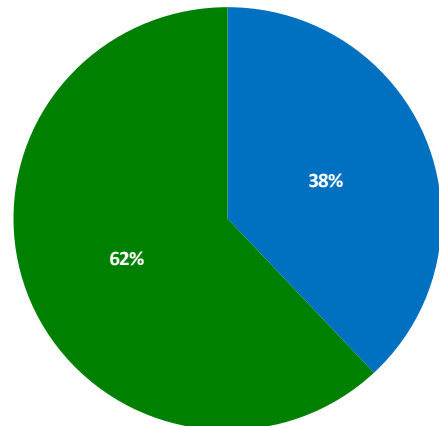
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Causes and management of post-operative respiratory failure



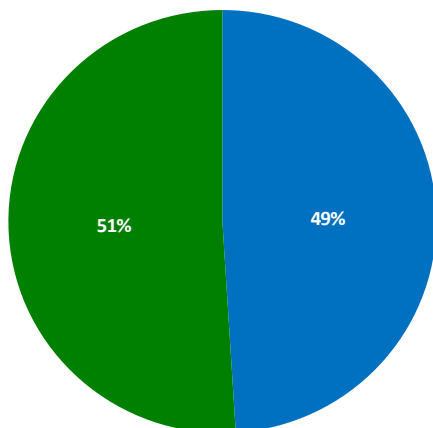
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Indications for ventilatory support and weaning off ventilator



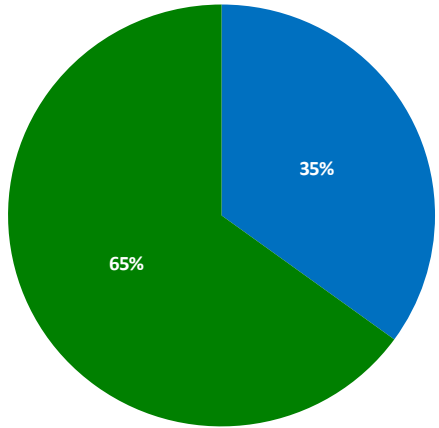
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Acute (adult) respiratory distress syndrome



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Homeostasis, feedback loops

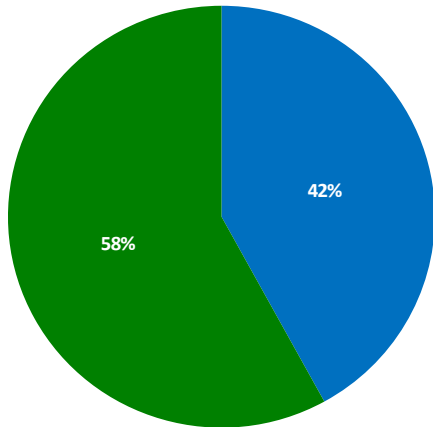


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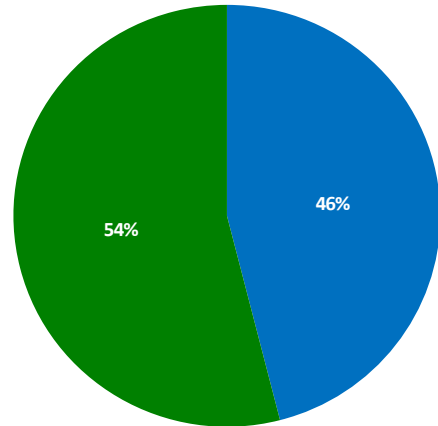
# Overall Feedback

Applied acid-base balance



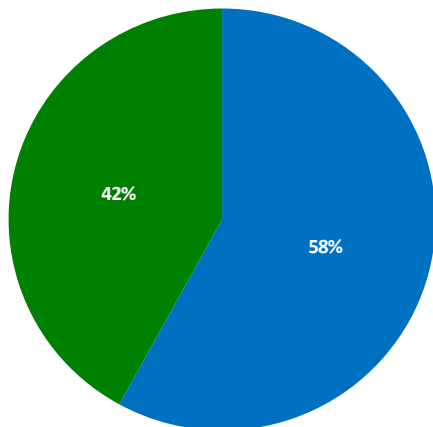
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Sepsis and septic shock



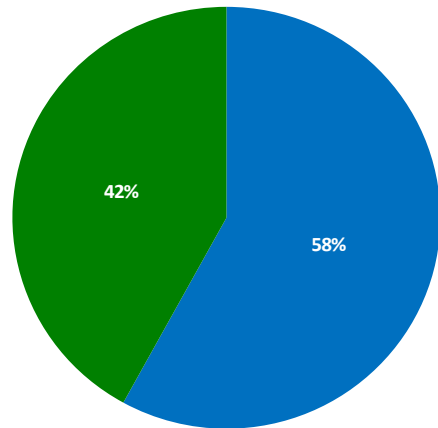
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Assessment of burns



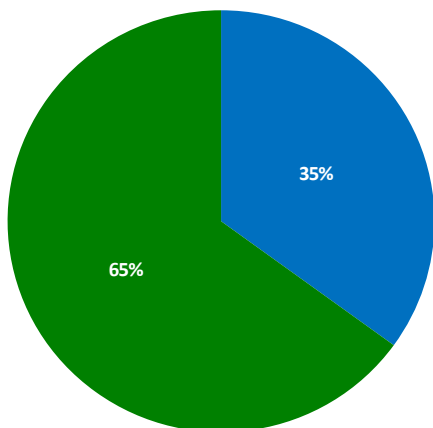
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Pathophysiology and principles of management in burns



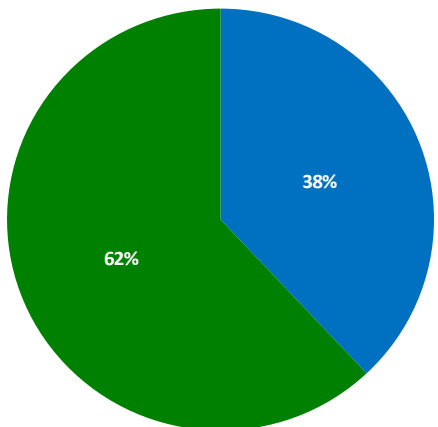
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Fluids and renal physiology



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

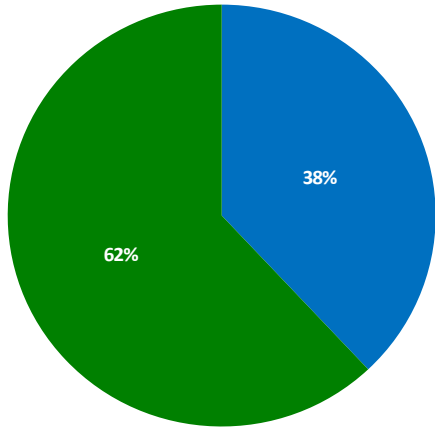
Spinal cord injuries and cord syndromes



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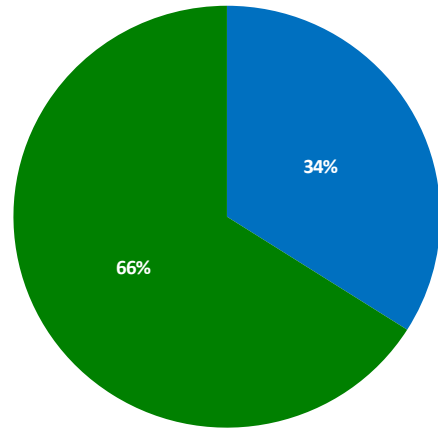
# Overall Feedback

Autonomic nervous system and bladder dysfunction



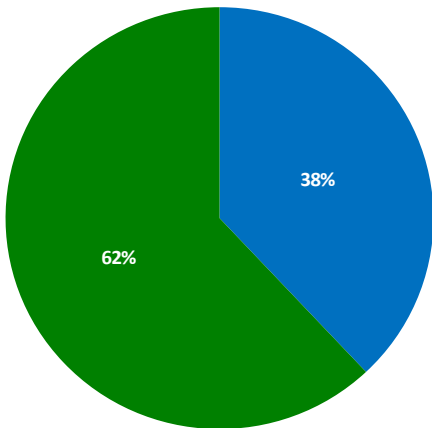
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Bleeding, coagulation/anti-coagulation



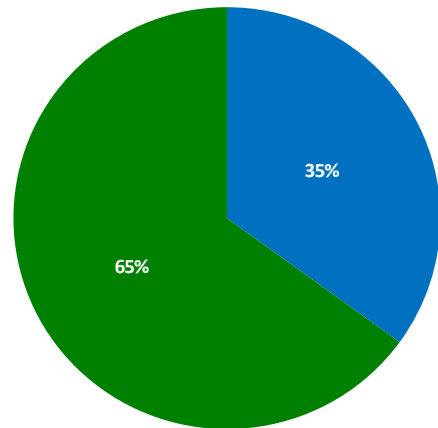
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Resuscitation, temperature regulation and Hypothermia



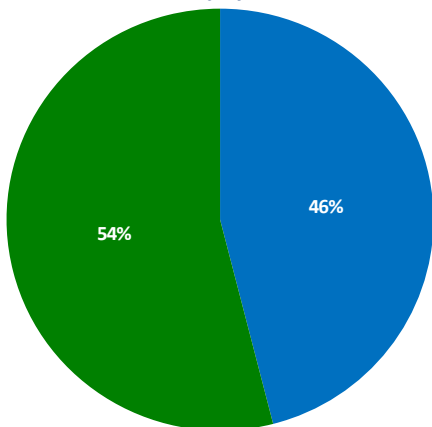
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Principles of epidural anaesthesia/assessment and pain pathways



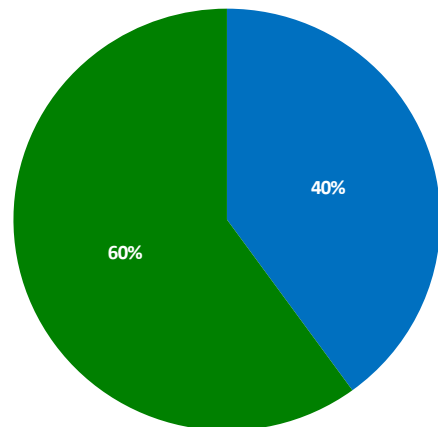
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

ICP, CBF, CPP and Management of head injury



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

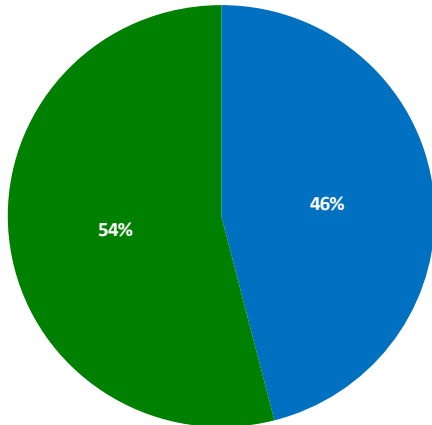
Calcium metabolism



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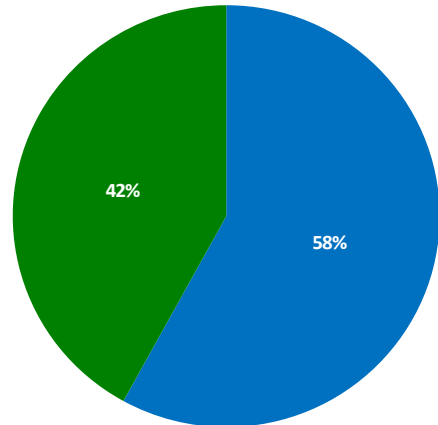
# Overall Feedback

Compartment syndrome



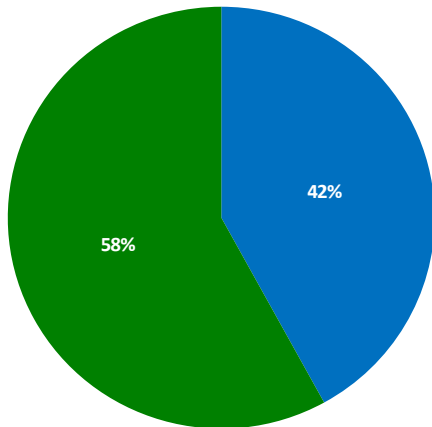
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

Would you recommend this course to a friend?



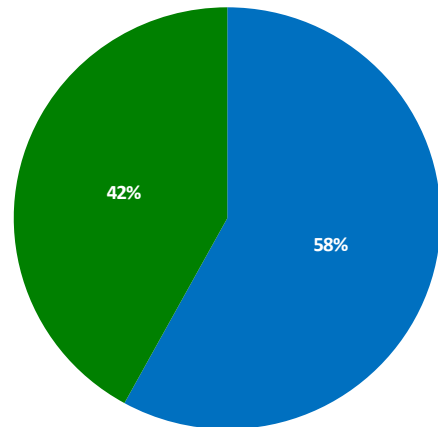
■ Most certainly ■ Certainly ■ Neutral ■ May be ■ Don't think so

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



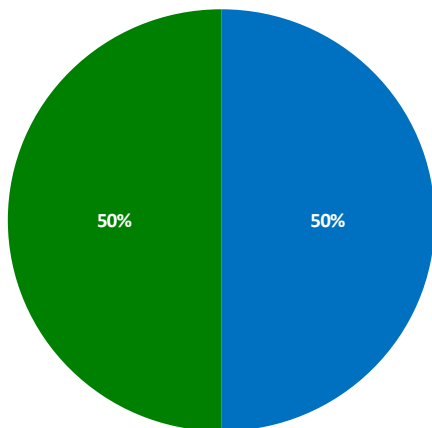
■ Most certainly ■ Certainly ■ Neutral ■ May be ■ Don't think so

How were the facilities and venue?



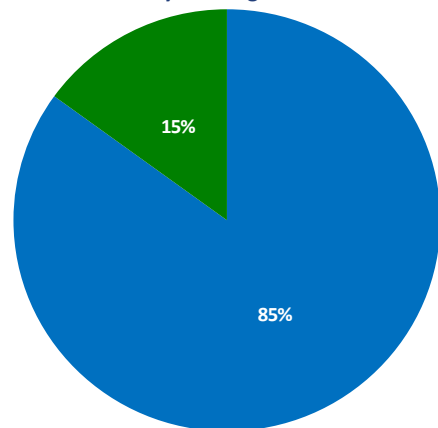
■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

How were the refreshments and lunch?



■ Excellent ■ Good ■ Neutral ■ Fair ■ Poor

How was the general friendliness of the faculty and organisers?



■ Very friendly ■ Friendly ■ Neutral ■ Not very friendly ■ Can't comment

## Individual Comments

Useful course.

**AP**  
*John Radcliffe Hospital, Oxford, UK*

Excellent course. Well organized lectures and useful OSCE.

**AS**  
*Newham General Hospital, London, UK*

Very good. Very useful.

**SJ**

Good.

**AL**  
*Derriford Hospital, Plymouth, UK*

Five stars.

**MK**  
*Royal Sussex County Hospital, Brighton, UK*

Excellent, hoping the exam goes as well as the mock did!

**KE**  
*Derriford Hospital, Plymouth, UK*

Very useful, liked it.

**AD**  
*Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust, UK*

Excellent.

**NN**  
*Aintree University Hospital, Liverpool, UK*

A fantastic course that has helped focus revision and go through things in detail that is difficult with ongoing COVID pandemic.

**JH**  
*Torbay District General Hospital, Torquay, UK*

Very useful course, highlighted gaps in knowledge and excellent quality teaching to augment my own revision prior to the upcoming exam.

**CG**  
*Royal Hospitals, Belfast, UK*

Good.

**PY**  
*University Hospital Hairmyres, Glasgow, UK*

## Individual Comments

Great faculty who were keen and enthusiastic to teach and go over any doubts. Worth it. Thank you Prof Enoch and team for your hard work arranging the course to happen during COVID.

**HM**

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

Fantastic.

**PP**

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

In five intense days we've covered most of the syllabus for the exam, this I would never have achieved on my own. I got the general idea of what I need to review and lots of tips about station strategy either from recently examined peers or former examiners. The pre- and post-course resources are of very good quality and invaluable for further revision. Price for all five days may seem high but given the amount of human resources, use of cadavers and quality and amount of insider information I feel it was a good investment. The course considerably increased the probability of success - my impression is that by attending this course my chances to pass the exam have increased by 30-50%.

**JD**

***Whipps Cross University Hospital, London, UK***

Excellent.

**MR**

***Southampton General Hospital, Southampton, UK***

I enjoyed every bit of the course. It was a very high yield course covering important topics. The faculty were easily approachable, friendly and supportive. They identified strengths and weaknesses for a candidate to build on ahead of the exam. It gave me the much required confidence ahead of the exam.

**AA**

***Southend University Hospital NHS Foundation Trust, UK***

The course was excellent and I had a great experience. The content was relevant, the information was concise, and highlighted knowledge gaps in a friendly and supportive environment. Would recommend.

**PL**

***Walsall Healthcare NHS Trust, UK***

Excellent.

**OM**

***Hinchingbrooke Health Care NHS Trust, UK***

Very positive, as always!

**AS**

***Royal Wolverhampton Hospitals NHS Trust, UK***

Very thorough and well thought out. Faculty were approachable and understood what was expected for the exam.

**CJ**

***Morrison Hospital, Swansea, UK***



# DOCTORS ACADEMY

BETTER EDUCATION. BETTER HEALTH.

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
- International Academic and Research Conference
- World University Anatomy Challenge

## Publications



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

## World Journal of Medical Education & Research



Peer-reviewed academic journal  
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- No submission fees
- No manuscript processing fee
- No publishing fee
- No cost to read, write or publish!

[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

[www.doctorexams.co.uk](http://www.doctorexams.co.uk)

# [www.doctorsacademy.org](http://www.doctorsacademy.org)