



# MRCS Part A Course: Basic Sciences and Clinical Application

Basic science subjects such as anatomy, physiology, pathology and microbiology are the principal components for developing a strong foundation for surgical training and for the understanding of its clinically applied aspects such as surgical anatomy and critical care physiology. As such, these subjects form an integral part in the MRCS A exam.

This two-day course provided the attendee with an overview of basic physiological principles, consolidated the candidate's core and applied surgical knowledge in anatomy and relevant pathology, and provided a focused revision of pertinent topics as tested in the exam.

The course was structured into two distinct but related days. On day 1, the emphasis was on basic and applied pathology, basic physiology and critical care, principles of surgery and clinical topics. Day 2 predominately featured topics on basic and surgically applied anatomy, and its related pathology. Microbiology pertinent to MRCS A was also covered on day 2. It was advised that candidates attend both days of the course to obtain full benefit but if they were particularly strong in the topics on day 1 or day 2, then they had the option of attending just one day of the course.

Candidates who attended this course received full access to MRCS Part A online educational resources from www.doctorexams.co.uk for a 4 month period. This resource contains 100s of SBA and EMQ questions for practice. In addition, they also received full access to all presentations via a secure, online link. All these benefits and privileges were included within the course fee.



#### Course Information

Course date: 8th and 9th April 2017

Venue: Education Centre

Christie Hospital Manchester

Attendance: 15 Delegates

Aimed at: Medical Students

**Foundation Year Doctors** 

Faculty: Surgeons

Course fee: Student £260.00



### **Course Programme**

Day 1
SURGICAL AND APPLIED ANATOMY, SYSTEM SPECIFIC PATHOLOGY AND MICROBIOLOGY

| 10915 - 0930 Introduction and format of the Exam  0930 - 1030 Skull base, Head, Scalp and face; Surgical Pathologies of the Head and Face  1030 - 1110 Neck, Thyroid, Larynx, Pharynx, Tongue; Surgical Pathologies of the Neck  1110 - 1130 Break for refreshments  1130 - 1230 Brachial plexus, arm, shoulder, scapula, back and rotator cuff (includes upper limb nerve injuries, palsies and shoulder pathologies)  1230 - 1300 Cubital fossa, forearm, flexor retinaculum and hand (includes carpal tunnel syndrome, ulnar nerve palsies, hand pathologies)  1300 - 1340 Lunch  1340 - 1420 Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  1420 - 1440 Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  1440 - 1530 Essential topics in Microbiology  1530 - 1550 Broak for refreshments  1550 - 1630 Transpyloric plane, anterior abdominal wall and inguinal region (includes hemia)  1630 - 1715 Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745 Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries) | 0900 - 0915 | Registration  |
|--|-------------|---|
| 1030 - 1110 Neck, Thyroid, Larynx, Pharynx, Tongue; Surgical Pathologies of the Neck  1110 - 1130 Break for refreshments  1130 - 1230 Brachial plexus, arm, shoulder, scapula, back and rotator cuff (includes upper limb nerve injuries, palsies and shoulder pathologies)  1230 - 1300 Cubital fossa, forearm, flexor retinaculum and hand (includes carpal tunnel syndrome, ulnar nerve palsies, hand pathologies)  1300 - 1340 Lunch  1340 - 1420 Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  1420 - 1440 Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  1440 - 1530 Essential topics in Microbiology  1530 - 1550 Break for refreshments  1550 - 1630 Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  1630 - 1715 Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745 Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 0915 - 0930 | Introduction and format of the Exam   |
| Break for refreshments  Brachial plexus, arm, shoulder, scapula, back and rotator cuff (includes upper limb nerve injuries, palsies and shoulder pathologies)  Cubital fossa, forearm, flexor retinaculum and hand (includes carpal tunnel syndrome, ulnar nerve palsies, hand pathologies)  Lunch  Lunch  Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  Essential topics in Microbiology  Break for refreshments  Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)  | 0930 - 1030 | Skull base, Head, Scalp and face; Surgical Pathologies of the Head and Face       |
| Brachial plexus, arm, shoulder, scapula, back and rotator cuff (includes upper limb nerve injuries, palsies and shoulder pathologies)  Cubital fossa, forearm, flexor retinaculum and hand (includes carpal tunnel syndrome, ulnar nerve palsies, hand pathologies)  Lunch  Lunch  Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  Essential topics in Microbiology  Break for refreshments  Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)  | 1030 - 1110 | Neck, Thyroid, Larynx, Pharynx, Tongue; Surgical Pathologies of the Neck          |
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| 1300 - 1340  Lunch  Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  Essential topics in Microbiology  Break for refreshments  Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1130 - 1230 |   |
| 1340 - 1420 Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm  1420 - 1440 Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  1440 - 1530 Essential topics in Microbiology  1530 - 1550 Break for refreshments  1550 - 1630 Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  1630 - 1715 Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745 Lumbar and lumbosacral plexus  1745 - 1830 Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1230 - 1300 |   |
| 1420 - 1440  Vascular anatomy of thorax, head and neck and thorax (includes vascular access and chest drain insertion); Vascular Pathologies of Neck and Thorax  1440 - 1530  Essential topics in Microbiology  1530 - 1550  Break for refreshments  1550 - 1630  Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  1630 - 1715  Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1300 - 1340 | Lunch   |
| access and chest drain insertion); Vascular Pathologies of Neck and Thorax  1440 - 1530 Essential topics in Microbiology  1530 - 1550 Break for refreshments  1550 - 1630 Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  1630 - 1715 Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745 Lumbar and lumbosacral plexus  1745 - 1830 Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1340 - 1420 | Thoracic wall; Mediastinum; Heart; Lungs and Diaphragm                            |
| 1530 - 1550  Break for refreshments  1550 - 1630  Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)  | 1420 - 1440 | •   |
| 1550 - 1630 Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia)  1630 - 1715 Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  1720 - 1745 Lumbar and lumbosacral plexus  1745 - 1830 Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1440 - 1530 | Essential topics in Microbiology  |
| Abdominal and pelvic anatomy (includes bowel pathologies, colon cancer and segmental bowel resections)  Lumbar and lumbosacral plexus  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)  | 1530 - 1550 | Break for refreshments  |
| segmental bowel resections)  1720 - 1745  Lumbar and lumbosacral plexus  1745 - 1830  Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1550 - 1630 | Transpyloric plane, anterior abdominal wall and inguinal region (includes hernia) |
| Femoral triangle, thigh, popliteal fossa; Lower leg, ankle and foot (includes lower limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1630 - 1715 |   |
| limb nerve injuries, palsies, compartment syndrome and ankle injuries)   | 1720 - 1745 | Lumbar and lumbosacral plexus   |
| 1830 End of Day 1  | 1745 - 1830 |   |
| www.doctorsacademy.org   | 1830        | •   |

### **Course Programme**

Day 2
GENERAL PATHOLOGY, CANCERS, PRINCIPLES OF SURGERY, GENETICS, STATISTICS AND
APPLIED SURGICAL SCIENCES

| 0830 - 0930   | Management of Trauma; ATLS Principles; Head Injury; Neurophysiology   |
|---|---|
| 0930 - 1000   | Basic and General Pathology   |
| 1000 - 1025   | Genetics and Inheritance Patterns   |
| 1025 - 1055   | Pre-operative Assessment  |
| 1055 - 1115   | Post-operative Complications and Management   |
| 1115 - 1135   | Break for refreshments  |
| 1140 - 1210   | Fundamentals of Wound Healing; Reconstructive and Plastic Surgery   |
| 1210 - 1230   | Principles of Local Anaesthetics; Tourniquets; Diathermy  |
| 1230 - 1245   | Fundamentals of Laparoscopic Surgery  |
| 1245 - 1300   | Sutures, Suture Materials and Needles   |
|   |   |
| 1300 - 1340   | Lunch   |
| 1300 - 1340<br>1345 - 1415  | Lunch  Management of Burns  |
|   |   |
| 1345 - 1415   | Management of Burns   |
| 1345 - 1415<br>1415 - 1500  | Management of Burns  Lumps and Benign Lesions; Ulcers; Vascular Pathologies and Vascular Surgery  |
| 1345 - 1415<br>1415 - 1500<br>1500 - 1530   | Management of Burns  Lumps and Benign Lesions; Ulcers; Vascular Pathologies and Vascular Surgery  Cancers of Thyroid and Breast   |
| 1345 - 1415<br>1415 - 1500<br>1500 - 1530<br><b>1530 - 1550</b>                               | Management of Burns  Lumps and Benign Lesions; Ulcers; Vascular Pathologies and Vascular Surgery  Cancers of Thyroid and Breast  Break for refreshments   |
| 1345 - 1415<br>1415 - 1500<br>1500 - 1530<br><b>1530 - 1550</b><br>1550 - 1620                | Management of Burns  Lumps and Benign Lesions; Ulcers; Vascular Pathologies and Vascular Surgery  Cancers of Thyroid and Breast  Break for refreshments  Melanoma and Testicular Cancers  |
| 1345 - 1415<br>1415 - 1500<br>1500 - 1530<br><b>1530 - 1550</b><br>1550 - 1620<br>1620 - 1650 | Management of Burns  Lumps and Benign Lesions; Ulcers; Vascular Pathologies and Vascular Surgery  Cancers of Thyroid and Breast  Break for refreshments  Melanoma and Testicular Cancers  Statistics and its Surgical Application |

### **Faculty**

### Dr Alan Watson, BSc, PhD

Reader in Anatomy and Neuroanatomist

University of Cardiff

## Ms Clare Carpenter, BSc (Anat), MB BCh, MRCS (Eng), MD, FRCS (T&O) Consultant Paediatric Orthopaedic Surgeon

University Hospital of Wales, Cardiff

### Mr Edmund Leung, DMedSci, MRCS, FRCS

Consultant General Surgeon

Hereford County Hospital

#### Mr Kevin Conway, MB BCh, MD, FRCS (Gen Surg)

Consultant Vascular Surgeon

Royal Glamorgan Hospital

### Dr Paul Morgan, FRCA

Consultant Intensivist

University Hospital of Wales, Cardiff

#### Professor Stuart Enoch, MBBS, MRCSEd, MRCS (Eng), PGCert (Med Sci), PhD

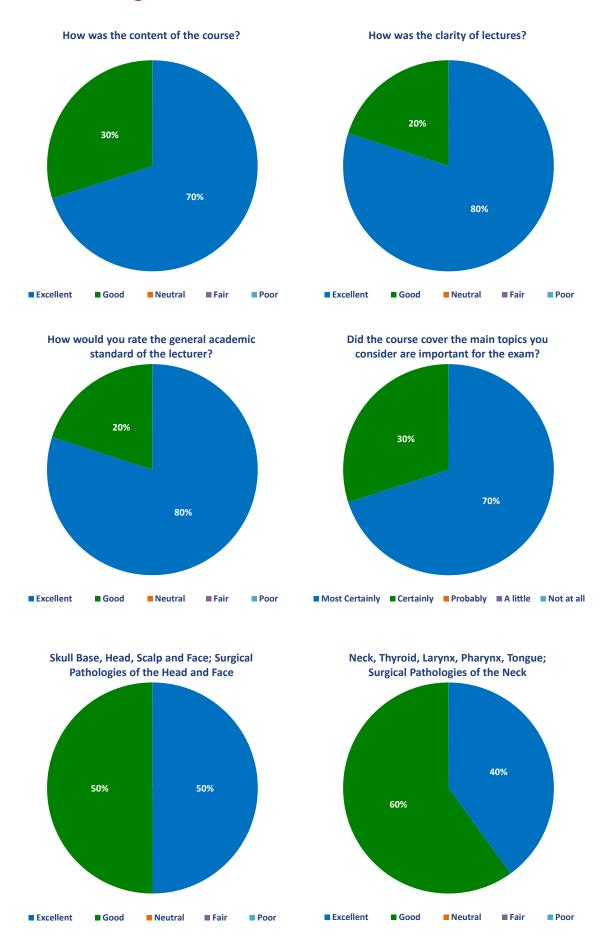
Professor, Higher Surgical Education

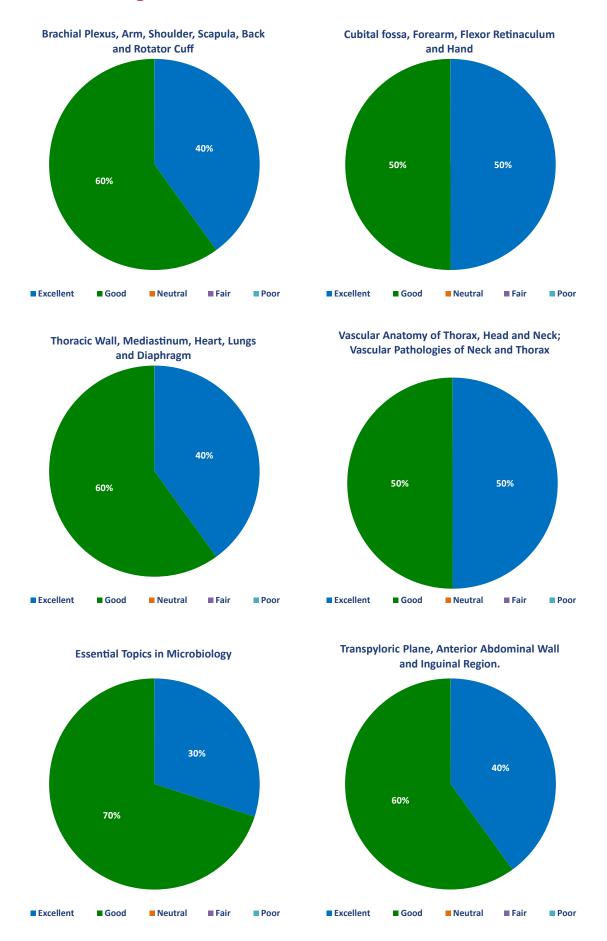
**Doctors Academy** 

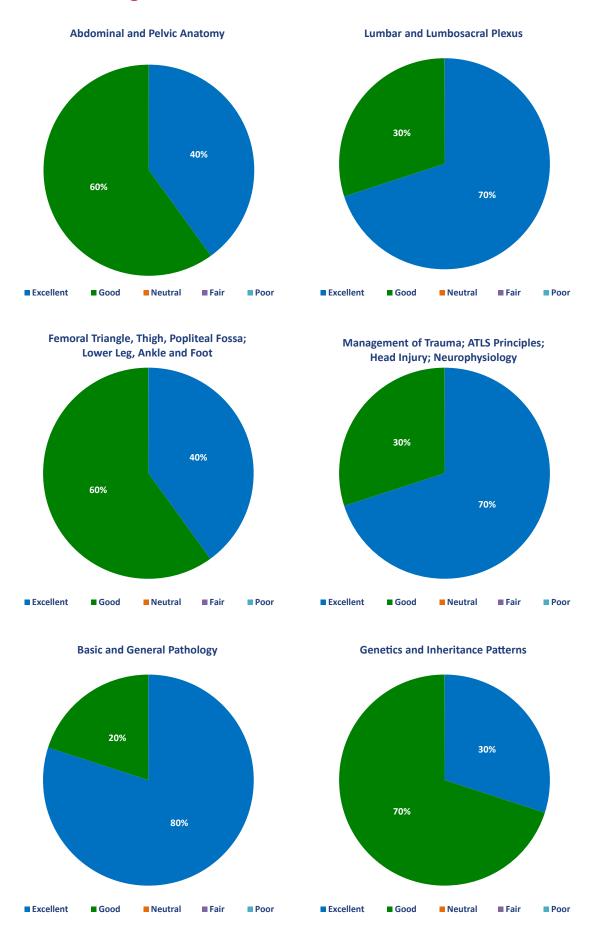
### Miss Yan Mei Goh, MBChB, MRCS, PGDip Clin Ed.

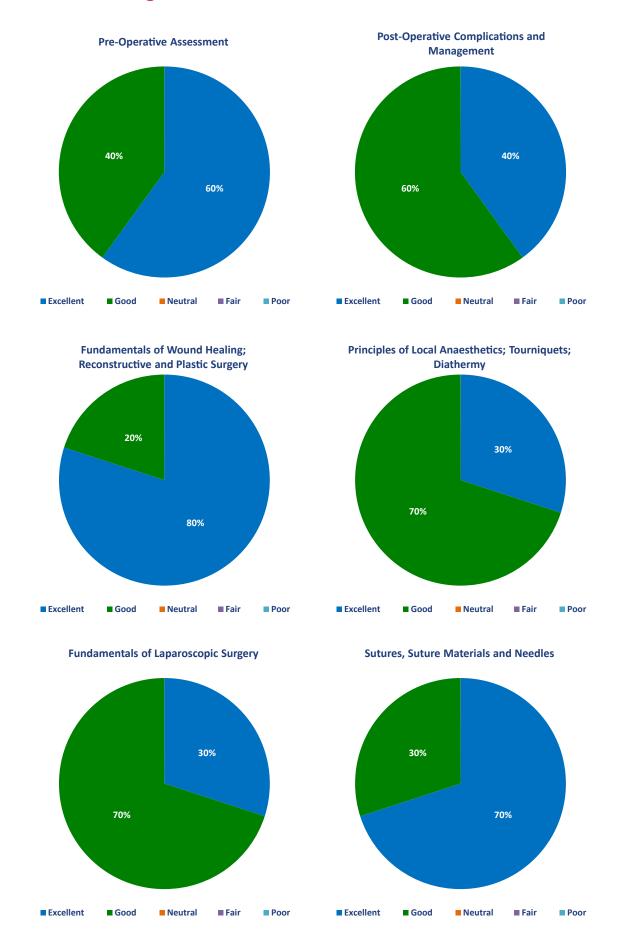
PhD Research Fellow - Imperial College London

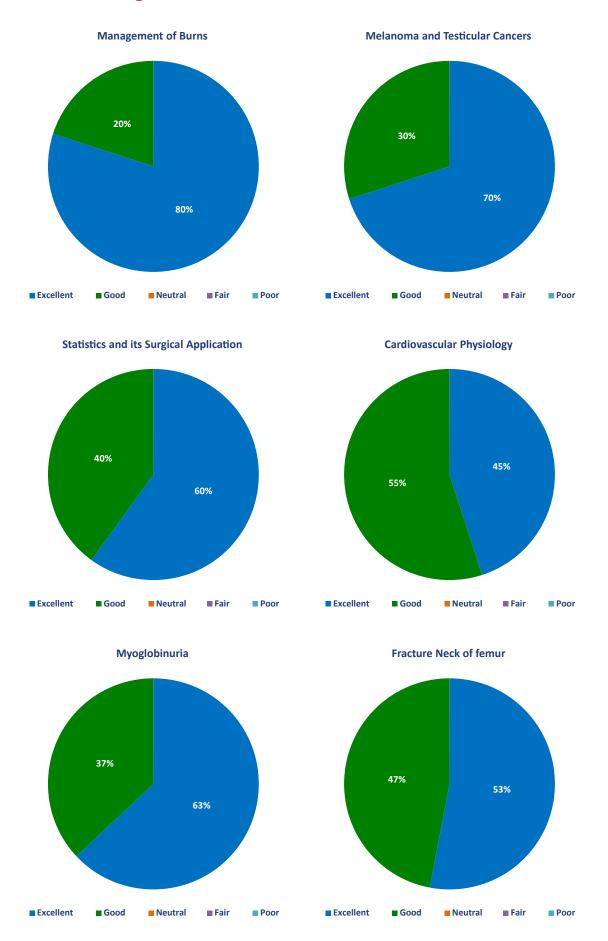
Specialist Registrar in General Surgery - Oxford Deanery

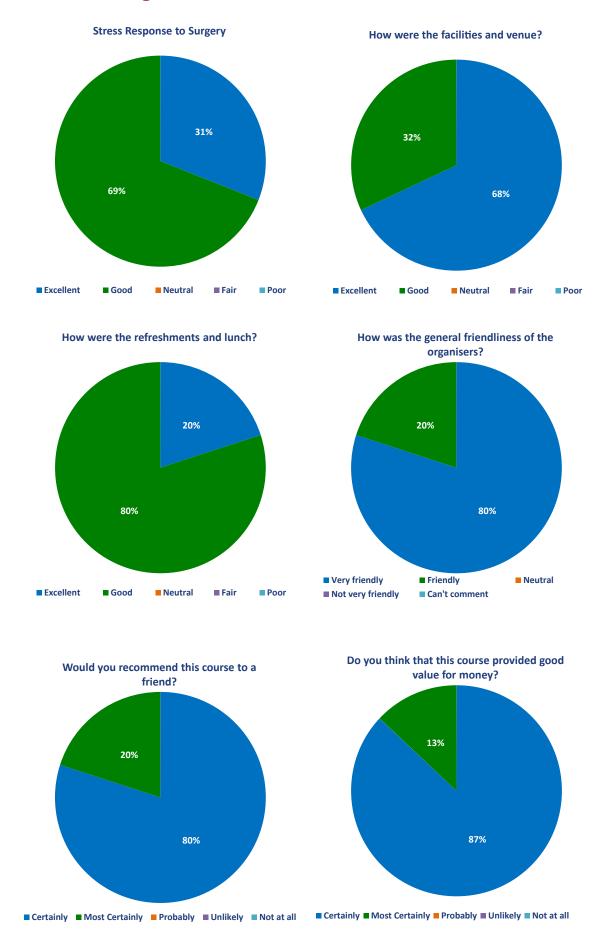












### **Individual Comments**

Excellent course. Has provided a solid framework to guide revision. Lecturer was extremely knowledgeable and really cared about making sure we got the most from the course.

|   | RI<br>Princess Alexandra Hospital, Harlow                  |
|---|--|
| Good.   |  |
|   | IA<br>Royal Oldham Hospital, Oldham                        |
| Very good.  |  |
|   | ZA<br>Northampton General Hospital, Northampton            |
| Good course. Excellent tutor.                             |  |
|   | GS<br>Royal Liverpool University Hospital, Liverpool       |
| Very organised and well delivered course. Eduring breaks. | asily approachable staff when further clarification needed |
|   | AM Poyal Prompton Hospital London                          |
| Excellent teaching, very helpful.                         | Royal Brompton Hospital, London                            |
|   | CN<br>Russells Hall Hospital, Dudley                       |
| Professor is an excellent teacher.                        |  |
|   | SS<br>Norfolk and Norwich University Hospital, Norwich     |



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! wimer.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

www.doctorexams.co.uk

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