CARDIFF MRCS PART B OSCE PROGRAMME
(Five-Day Attendance Course and Online Educational Content)

Doctors Academy International Education and Training Centre, Cardiff Bay

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(There is an additional 50 hours of online pre- and post-course material to read and watch)

Programme

Summary of Timings :

Registration	**0820 hours each day**
Days 1–4	**0830-1945 hours**
Day 5	**0830-1800 hours**
Breaks	**Morning: 1040-1100 hours** **Lunch: 1310-1350 hours** **Afternoon: 1545-1600 hours** **Evening: 1745-1815 (Days 1–4)**

Overview of Course Structure:

Days 1–2: Applied Surgical Sciences - Surgical Anatomy and Pathology

Day 3: Clinical and Procedural Skills + Critical Care

Day 4: Cadaveric Anatomy + Anatomy Mock OSCE + Pathology

Day 5: Clinical Examination + Communication Skills

Teaching is exam-focused and integrates structured viva questioning, clinical scenarios, radiology, pathology, practical skills, cadaveric prosections, simulated patients, and timed OSCE practice.

Detailed Programme

DAY 1:

INTEGRATED SURGICAL ANATOMY
Head, Skull, Face and Spine | Neck | Thorax | Abdomen and Pelvis

Time	Session	Detailed Content
0820-0830	**Registration**	Registration, Welcome, and Outline of the Day's Teaching
0830-1045	**Head, Skull, Face, and Spine I**	Skull Base, Cranial Fossae, Foramina, and Their Transmitted Structures; Cranial Nerves and Clinically Relevant Lesions; Circle of Willis; Dural Venous Sinuses; Autonomic Nervous System; Face and Scalp; Mandible; Parotid Gland and Facial Nerve; Pterygopalatine and Infratemporal Fossae. Integrated Surface Anatomy, Imaging and Surgical Correlations Including Giant Cell Arteritis, Trigeminal Neuralgia, Vestibular Schwannoma, and Facial Nerve Palsies.
1045-1100	**Morning Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1100-1310	**Head, Skull, Face, and Spine II**	Applied Cranial Nerve Anatomy; Skull-Base Lesions and Clinical Localisation; Cervical Vertebral Anatomy; Atlas and Axis; Craniovertebral Junction; Spinal Cord, Meninges, and Nerve Roots; Cranial Nerve Nucleus and Clinically Relevant Lesions; Vertebral and Spinal Relationships; Common Spinal Injuries and Imaging-Based Anatomy; Ascending and Descending Spinal Tracts; Cord Syndromes; Cauda Equina; Conus Medullaris; Urinary Retention and Incontinence.
1310-1350	**Lunch Break (sandwich buffet lunch, crisps, fruit juice, fruit, and desserts will be served)**	
1350-1545	**Neck**	Triangles of the Neck; Key Contents in Each Triangle; Submandibular Gland; Fascial Planes; Carotid Sheath; Vascular Anatomy of the Neck; Carotid and Subclavian Vessels; Cervical Sympathetic Chain; Thyroid and Parathyroid Anatomy; Recurrent and Superior Laryngeal Nerves; Larynx and Pharynx; Soft Palate; Cervical Lymphatics and Levels of Lymph Nodes in the Neck; Clinically Important Neck Swellings, Operative Relations and Complications; Key Structures Involved in Neck Dissections.
1545-1600	**Afternoon Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1600-1745	**Thorax and Diaphragm**	Thoracic Wall and Intercostal Spaces; Pleura and Lungs; Thorax and Mediastinum; Heart and Pericardium; Coronary Circulation; Great Vessels; Conduction System; Chambers of the Heart; Pericardial Sinus; Oesophagus; Thoracic Duct; Chest-Drain Anatomy; Applied Thoracic Imaging and Surgically Important Relations; Splanchnic Nerves; Diaphragm; Nerve and Blood Supply of Diaphragm; Diaphragmatic Hernias.
1745-1815	**Evening Break (a mix of cold and hot buffet food (light snacks) will be served)**	
1815-1945	**Abdomen and Pelvis**	Anterior Abdominal Wall; Inguinal Region and External Genitalia; Peritoneum, Greater Sac, Lesser Sac and Epiploic Foramen; Liver and Spleen and Their Ligaments; Gallbladder and Pancreas; Kidneys and Ureters; Small and Large Intestine; Vascular Anatomy of the Abdomen; Rectum and Anal Canal; Hemipelvis; Ureters and Their Relations; Hypogastric Nerves; Pelvic Floor, Perineum and Perineal Fascia; Integrated Surgical and Radiological Anatomy.

DAY 2:

LIMB ANATOMY AND SURGICAL PATHOLOGY
Lower Limb | Upper Limb | General and System-Specific Pathology

Time	Session	Detailed Content
0820-0830	**Registration**	Registration and Introduction to Day 2.
0830-1045	**Lower Limb Surgical Anatomy I**	Movement of the Lower Limb; Hemipelvis; Ligaments of the Hip; Hip Joint and Surgically Important Relations; Gluteal Region; Surgical Approaches to the Hip; Femoral Triangle; Adductor Canal; Vascular Anatomy of the Lower Limb; Major Peripheral Nerves and Their Anatomical Relationships; Long-Bone Fractures and Pelvic Trauma; Fractured Neck of Femur. Applied Anatomy of Common Injuries and Surface Landmarks.
1045-1100	**Morning Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1100-1200	**Lower Limb Surgical Anatomy II**	Popliteal Fossa; Knee Joint and Ligaments; Lower Leg; Fascial Compartments; Ankle and Foot. Lower-Limb Nerve Injuries Including Femoral, Obturator, Sciatic, Common Fibular (Peroneal), and Tibial Nerve Lesions; Foot Drop; Characteristic Motor and Sensory Deficits; Clinically Relevant Fractures; Management of Compartment Syndrome.
1200-1310	**Upper Limb Surgical Anatomy**	Movements of the Upper Limb; Brachial Plexus; Roots, Trunks, Divisions, Cords, and Terminal Branches; Erb's Palsy and Klumpke's Palsy; Shoulder and Back; Arm; Fractures of the Humerus; Antecubital Fossa and Forearm; Fractures of the Radius and Ulna; Wrist and Hand; Carpal Tunnel; Flexor and Extensor Tendons around the Wrist; Anatomical Snuff Box; Palmar Arches; Vascular Anatomy of the Upper Limb. Upper-Limb Nerve Injuries Including Axillary, Musculocutaneous, Radial, Median, and Ulnar Nerve Lesions, with Characteristic Motor and Sensory Findings.
1310-1350	**Lunch Break (sandwich buffet lunch, crisps, fruit juice, fruit, and desserts will be served)**	
1350-1545	**General Pathology and Principles of Neoplasia**	Basic Pathology and Key Pathology Definitions; Cellular Injury and Adaptation; Acute and Chronic Inflammation; Thrombosis, Embolism and Infarction; Neoplasia, Dysplasia, and Carcinoma In Situ; Tumour Differentiation, Grading, and Staging; Tumour Markers; Mechanisms and Routes of Metastasis; Principles of Histopathological Diagnosis; Amyloidosis; Sarcoidosis; Actinomycosis; Dermoid Cyst; Benign Cutaneous Lumps.
1545-1600	**Afternoon Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1600-1745	**System-Specific Pathology I**	Cancers of the Testis; Testicular Germ-Cell Tumours and Lymphoma; Benign Disorders and Cancers of the Thyroid; Cancers of the Salivary Glands; Malignant Melanoma and Other Cutaneous Malignancies. Integrated Tumour Markers, Relevant Molecular Pathology, Lymphatic Drainage, and Metastatic Spread; Vascular Pathologies; AAA – Open vs. EVAR; Levels of Lower Limb Amputations.
1745-1815	**Evening Break (a mix of cold and hot buffet food (light snacks) will be served)**	
1815-1945	**System-Specific Pathology II and Surgical Microbiology**	Barrett's Oesophagus and Cancers of the Oesophagus; Cancer of the Stomach; Colonic Polyps and Polyp Syndromes; Colorectal Malignancies; Diverticular Disease; Inflammatory Bowel Disease; Surgical Microbiology; Necrotising Fasciitis; Tuberculosis; Clostridium Difficile Infection.

DAY 3:

CLINICAL AND PROCEDURAL SKILLS / APPLIED SURGICAL SCIENCES
Small-Group Practical Teaching, Critical Care Scenarios, and Core OSCE Science

Time	Session	Detailed Content
0820-0830	**Registration**	Group Allocation and Practical-Session Briefing.
0830-1045	**Clinical and Procedural Skills I**	Surgical Scrubbing And Asepsis; Knot Tying (Reef Knot, Surgeon's Knot, Tying At Depth, and Instrument Tie); Sutures, Needles, and Safe Handling of Sharps; Suturing Techniques (Simple Interrupted, Vertical and Horizontal Mattress; Figure-of-Eight Haemostatic Stitch). Individual Hands-On Practice with Feedback. (Skills I and Skills II will run in parallel for groups A and B, and the groups will swap after the morning break)
1045-1100	**Morning Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1100-1310	**Clinical and Procedural Skills II**	Surgical Excision of A Cutaneous Lesion; Abscess Drainage; Urinary Catheterisation; Cannulation and Venepuncture In High-Risk Patients; Interpretation of Arterial Blood Gases; Insertion of A Chest Drain. Practice Using Simulated and/or Animal Tissue Models with OSCE-Style Questioning. Discussion on Fine Needle Aspiration Cytology, Lumbar Puncture, and Principles of Surgery. (Skills I and Skills II will run in parallel for groups A and B, and the groups will swap after the morning break)
1310-1350	**Lunch Break (sandwich buffet lunch, crisps, fruit juice, fruit, and desserts will be served)**	
1350-1545	**Applied Surgical Sciences and Critical Care I**	Acid-Base Imbalance (Metabolic and Respiratory Acidosis/Alkalosis and Management); Fluid Balance and Fluid Replacement Therapy; Bleeding and Coagulation; Major Haemorrhage Principles; Sepsis and Septic Shock; Homeostasis and Thermoregulation; Inotropes; Structured Assessment of the Deteriorating Surgical Patient.
1545-1600	**Afternoon Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1600-1745	**Applied Surgical Sciences and Critical Care II**	Normal Ventilatory Cycle; Post-Operative Respiratory Failure; Intermittent Positive-Pressure Ventilation; Acute Respiratory Distress Syndrome; Perioperative Critical-Care Physiology; Parathyroid Disorders and Calcium Metabolism; Pituitary and Adrenal Function; Renal Autoregulation and Renin-Angiotensin System; Cerebral Autoregulation; Space-Occupying Lesions; Head Injury; Burns; Pain Pathways; Epidural Principles; Resuscitation, Temperature Regulation, and Hypothermia; Splenic Injuries, Splenectomy, and Vaccination.
1745-1815	**Evening Break (a mix of cold and hot buffet food (light snacks) will be served)**	
1815-1945	**Core OSCE Topics: Healing, Local Anaesthesia, and Theatre Prioritisation**	Wound Healing (Phases, Primary and Secondary Intention, Factors Affecting Healing, and Complications). Bone Healing (Primary and Secondary Healing, Callus Formation, Remodelling, Delayed Union and Non-Union). Safe Use Of Local Anaesthesia (Mechanism, Dose Calculations, Toxicity, and Management of LAST). Organising a Theatre List and Theatre-List Prioritisation (Urgency, Patient Factors, Infection Considerations, Equipment, and Resources), Theatre Safety, and Structured Justification of Order. WHO Checklist.

DAY 4:

CADAVERIC ANATOMY, ANATOMY MOCK OSCE, and PATHOLOGY

School of Biosciences, Cardiff University | Small-Group Rotations and Timed OSCE Practice

Time	Session	Detailed Content
0820-0830	**Registration and Dissection Room Briefing**	Registration, Group Allocation, Dissection Room Requirements, and Orientation.
0830-1045	**Cadaveric Surgical Anatomy I**	Small-Group Teaching Using Anatomical Prosections, Osteology, Pathology Specimens, and Radiological Images. Head and Neck; Skull Base; Spine; Thorax and Mediastinum; Heart and Lungs; Abdomen and Pelvis. Emphasis on Identification, Relations, Blood Supply, Nerve Supply, and Surgical Relevance.
1045-1100	**Morning Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1100-1310	**Cadaveric Surgical Anatomy II and Revision**	Upper and Lower Limbs; Brachial Plexus; Peripheral Nerves and Nerve Injuries; Major Vessels; Osteology; Shoulder, Arm, Forearm, Wrist, and Hand; Hemipelvis, Hip, Gluteal Region, Femoral Triangle, Adductor Canal, Popliteal Fossa, Leg, Ankle, and Foot. Focused Revision of High-Yield Anatomy, Imaging, and Operative Relationships.
1310-1350	**Lunch Break (sandwich buffet lunch, crisps, fruit juice, fruit, and desserts will be served)**	
1350-1545	**Parallel Session 1* - Group A / Group B**	***GROUP A:*** Anatomy Mock OSCE (Timed Individual Stations Using Prosections, Osteology, Radiology, and Applied Surgical Anatomy). ***GROUP B:*** System-Specific Pathology Stations (Brain Tumours; Renal and Bladder Cancers; Prostate Cancer; Breast Conditions and Breast Cancers; Primary Bone Tumours; Back/Spinal Pathology and Bone Metastases; Osteomyelitis; Septic Arthritis; Pathology Specimens and Radiology Where Appropriate; Carcinoid / Neuroendocrine Tumours; MEN Syndromes; Pheochromocytoma).
1545-1600	**Afternoon Break and Group Swap**	**Afternoon Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**
1600-1745	**Parallel Session 2* - Groups Swap**	***GROUP B:*** Anatomy Mock OSCE (Timed Individual Stations Using Prosections, Osteology, Radiology, and Applied Surgical Anatomy). ***GROUP A:*** System-Specific Pathology Stations (Brain Tumours; Renal and Bladder Cancers; Prostate Cancer; Breast Conditions and Breast Cancers; Primary Bone Tumours; Back/Spinal Pathology and Bone Metastases; Osteomyelitis; Septic Arthritis; Pathology Specimens and Radiology Where Appropriate; Carcinoid / Neuroendocrine Tumours; MEN Syndromes; Pheochromocytoma).
1745-1815	**Evening Break (a mix of cold and hot buffet food (light snacks) will be served)**	
1815-1945	**System-Specific Pathology - Consolidation and OSCE**	Cancers of the Pancreas; Cholangiocarcinoma; HCC; Whole-Group Pathology Consolidation with Further Station-Based Teaching. Integration of Pathology Definitions, Tumour Markers, Grading/Staging, Molecular Features, Radiology, and Rapid-Fire MRCS OSCE Questions. Review of Difficult/High-Yield Pathology from Day 2 Where Required.

***Afternoon Rotation:** Half the cohort completes the anatomy mock OSCE while the other half completes the pathology stations. The groups swap after the 1545-1600 break.*

DAY 5:

CLINICAL EXAMINATION AND COMMUNICATION SKILLS
Small-Group OSCE Practice with Individual Participation and Feedback

Time	Session	Detailed Content
0820-0830	**Registration**	Group Allocation and Briefing.
0830-1045	**Clinical Examination I**	Examination of the Abdomen and Abdominal Organs; Examination of Hernia; Examination of Lumps and Lymph Nodes; Examination of the Neck and Thyroid. Structured Introduction, Examination Sequence, Presentation of Findings, Differential Diagnosis, and Examiner Follow-Up Questions. (Examination I and Examination II will run in parallel for groups A and B, and the groups will swap after the morning break)
1045-1100	**Morning Break and Refreshments (coffee, tea, and both sweet and savoury snacks will be served)**	
1100-1310	**Clinical Examination II**	Examination of Varicose Veins and Leg Ulcers; Peripheral Vascular Disease; Cardiorespiratory System; Cranial Nerves; Hip and Knee; Shoulder and Back. Emphasis on Fluent Technique, Recognition of Signs, Synthesis of Findings, and Concise Presentation to the Examiner. (Examination I and Examination II will run in parallel for groups A and B, and the groups will swap after the morning break)
1310-1350	**Lunch Break (sandwich buffet lunch, crisps, fruit juice, fruit, and desserts will be served)**	
1350-1545	**Clinical Consultation and Communication Skills I**	Information Gathering and Focused Surgical History; Information Giving; Explaining a Diagnosis; Discussing Investigations and Management Options; Challenging Patients and Challenging Situations; Difficult Consultations. Simulated-Patient Practice with Individual Feedback. (Communication Skills I and Communication Skills II will run in parallel for groups A and B, and the groups will swap after the morning break)
1545-1600	**Afternoon Break and Refreshments (coffee, tea, soft drinks, and both sweet and savoury snacks will be served)**	
1600-1745	**Clinical Consultation and Communication Skills II**	Breaking Bad News; Consent in Surgery; Explaining Procedures, Benefits, Material Risks, and Alternatives; Shared Decision-Making; Responding to Concerns; Telephone Communication and Professional Communication with Colleagues. Timed MRCS-Style Scenarios With Faculty Feedback. *(Communication Skills I and Communication Skills II will run in parallel for groups A and B, and the groups will swap after the morning break)*
1745-1800	**Course Conclusion**	*Final Feedback; Examination Strategy; Common Errors; Individual Learning Priorities; Guidance for Final Preparation for the MRCS Part B OSCE; Course Close.*