

## College of Medical, Veterinary & Life Sciences

### School of Medicine

### MBChB Admissions

### MBChB Curriculum Information 2011-12

#### PROGRAMME AIMS

The medical undergraduate programme at the University of Glasgow is designed to ensure that the learning outcomes provide the student with the knowledge, skills and attitudes appropriate for commencing their postgraduate work as a doctor. In addition, the learning opportunities should provide the student with the skills to tackle lifelong learning.

The current medical undergraduate programme at the University of Glasgow was set up in 1996 in response to recommendations made by the General Medical Council to all UK medical schools. All curricula have to encompass a series of themes as follows:

- Clinical practice
- Communication skills
- Human biology
- Behavioural science
- Human disease
- Public health
- Disability and rehabilitation
- Finding out, research and experiment
- Ethics and law
- Gender and ethnic background
- Therapeutics and management
- Palliative medicine and the care of the dying.

In Glasgow the undergraduate programme lasts for 5 years. The curriculum is ‘student centred’ with most learning being undertaken in small groups. The learning outcomes that students have to reach are encompassed in:

Tomorrow’s Doctors 3

[www.gmc-uk.org/education/undergraduate/information\\_for\\_UK\\_students.asp#2](http://www.gmc-uk.org/education/undergraduate/information_for_UK_students.asp#2)

The Scottish Doctor [www.scottishdoctor.org/](http://www.scottishdoctor.org/)

All graduates must meet the core outcomes set by the General Medical Council. The Degrees of MBChB follow a prescribed curriculum which consists of three main components:

- The Integrated Core
- Vocational Studies
- Student Selected Components

Students shall be required to comply with such instructions as are prescribed by the College of Medical, Veterinary & Life Sciences (MVLS). All instructions shall be given to the students in writing at the beginning of the year, programme component or study block. Reasonable notice of any alteration to them will also be given. A student who fails to comply with instructions may be refused enrolment in and admission to Degree examinations.

There are five main components of the curriculum:

### **Core Knowledge (Years 1-3)**

This is an integrated programme of clinical and scientific topics. The material covered has been selected to provide a comprehensive overview of medical and scientific principles. The knowledge component of the curriculum uses a mixture of methods including lectures, labs and Problem-Based learning. It is seen as a preparation for a professional career based on lifelong learning. The programme has been developed by NHS and academic clinical staff working with scientists from the College of Medical, Veterinary and Life Sciences at the University.

### **Vocational Studies**

Within the Glasgow programme students have early contact with patients. Training in communication starts in Year 1. The communication skills programme runs from year 1 – 5. The vocational studies component also deals with topics relating to professional standards and behaviour and runs over year 1 and 2.

### **Clinical Skills (Year 1-5)**

Video podcasts available for each year to complement teaching.

### **Clinical Attachments (Year 4-5)**

Years 4 and 5 form the final part of the core and take the form of a series of clinical attachments through Medicine, Surgery, Psychological Medicine, Child Health, Obstetrics & Gynaecology, General Practice and Emergency Medicine, ENT/Ophthalmology, Neurology and Cardiology. A series of Academic Days during the clinical attachments continues the process of integrating the biological and clinical sciences. Continuing training is given in clinical skills. In Year 5 students undertake a Preparation for Practice Block.

### **Student Selected Components**

Student Selected Components (SSC) constitute approximately 9% of the structured programme time and are designed to allow the selection and in depth study of special interest subjects. A wide variety of topics for study are available. Increasingly, students are proposing their own SSCs and in addition there is the facility for an SSC to be linked to an elective, allowing for projects to be carried out overseas or a small research project to be completed.

## **Electives**

MBChB students are required to undertake two four-week periods of study of any aspect of the practice of medicine in recognised clinical specialities, including general practice and public health, which has the approval of the Dean. Electives may also include research in an appropriate setting. These take place after the first diet of examinations in year 3 and between years 4 and 5. For further information, please refer to Section 2.5.

## **THE CURRICULUM**

### **First Year**

#### **The Integrated Core (Cells to Societies)**

Year 1 comprises the first phase (the first 13 weeks of teaching) and the first semester of the second phase (which continues on till the end of year 2).

#### **First phase**

First phase is of 13 weeks' duration and is intended to be a 'primer', introducing students to human biology at a relatively basic level. The teaching is organised round an 'anatomy core', in which students take a 'broad-brush' look at the various systems of the body, with other biomedical teaching woven round this.

In the first 2 weeks, students learn about basic organisation of tissues, and are introduced to cell biology, molecular biology and metabolic processes. From weeks 3-10, they follow the 'anatomy core', with an anatomy lab each week, a Moodle-based workbook to complete in their own time and weekly interactive feedback sessions.

A PBL component runs throughout weeks 1-10 of Phase 1, with one session per week. The increased structure in the revised curriculum is intended to support students' transition from the school environment to the self-directed learning environment of the Medical School. PBL objectives overlap with those from other components of the first phase of the curriculum and all aspects are examinable.

In the final 3 weeks of Phase 1, the self-directed component increases, with students undertaking 2 PBL sessions per week, and this continues for the rest of Year 1. The focus in these final 3 weeks is inflammation and immunity.

#### **Second phase**

Students commence the second phase after the Christmas break. For session 2011-12, the structure and content will be similar to the post-1996 curriculum. There will be an 11-week unit on 'Health in Communities' then a 5 week unit on 'Homeostatic Mechanisms'.

Students will also undertake Vocational Studies (VS) throughout Year 1. During their VS component they will be introduced to patients and to the care of patients in the community and in hospital. Students will also be introduced to a series of Clinical Skills throughout the year.

## **Second Year**

### **The Integrated Core (Molecules and Tissues)**

The second phase of study continues through Year 2. The second year of the curriculum will continue the Integrated Core and Vocational Studies and Clinical Skills. In addition, students will select from a list of options, one Student Selected Component which will be of 5 weeks' duration. This will be undertaken during the second half of the Second Semester. The Integrated Core will continue the pattern established during year 1.

## **Third Year**

### **The Integrated Core (Clinical Systems)**

The third phase of study is of 13 weeks 'duration'. During this semester students will study clinical cases around weekly topics. There will be case based learning tutorials, lectures and clinics – pathological conferences.

In the second semester students enter their fourth phase of study and undertake two 'junior' clinical attachments and one SSC. Community-based learning continues along with skills teaching. Students will undertake an elective of 4 weeks 'duration' at the end of third year.

## **Fourth Year**

The fourth phase extends right up to Preparation for Practice in Year 5. The fourth year of the curriculum will consist of a series of clinical attachments based in hospitals and the community. One Student Selected Component of five weeks duration will be selected from the list of options. In addition the students will undertake a period of elective study of a minimum of 4 weeks duration at the end of the fourth year.

## **Fifth**

The final year will continue the series of clinical attachments commenced in year 4. Following the final examinations, there will be a 9 week period of study in preparation for medical practice, which will include a period of work experience in which the student will undertake the tasks of an FY1 doctor.

## **LEARNING OPPORTUNITIES**

Each year has a unique web page – which should be your initial resource at all times. This will be updated frequently as required.

<b>First Year Activities</b>	
Problem-based Learning (PBL)	1 session per week for weeks 1-10; thereafter, 2 sessions per week. Small groups – approximately 10 per group.  Students will be in different PBL groups for each of the following components:  Phase 1 Phase 2: Health in Communities Phase 2: Homeostatic mechanisms
Labs	Each lab is usually delivered 3 or 4 times to groups of approximately 60-80.

Lectures	Teaching to the entire year group.
Vocational Studies (VS)	Throughout year, one 3-hour session per week encompasses communication skills, ethics, Hospital and GP visits, personal and professional development and community health. Small groups of about per group.
Clinical Skills	<p>Clinical Skills sessions are delivered in year 1.</p> <p>Cleanliness champion programme</p> <ul style="list-style-type: none"> <li>• Measuring pulse, blood pressure, temperature and respiratory rate</li> <li>• Venepuncture and correct management of specimens **</li> <li>• Administering subcutaneous, intradermal and intramuscular injections incorporating making up drugs for injections **</li> <li>• Cardiopulmonary Resuscitation</li> <li>• Limb movements **</li> <li>• Standard Precautions (hand washing)</li> <li>• Moving &amp; handling online programme</li> </ul> <p>**video podcast available to download from VALE Clinical Skills Suite**</p>
Hospital Visits	Accompanied by a VS Tutor, small groups of around 8-10 students, attend hospital units, hospices and General Practice.
Moodle workbooks and quizzes	E-learning resource to supplement taught sessions and provide a forum for formative assessment

<b>Second Year Activities</b>	
Problem-based Learning (PBL)	<p>Throughout year (except during SSC1), two 2-hour sessions per week. Small groups – approximately 8-10 per group.</p> <p>Block Themes:</p> <p>7 Conception, Growth and Development</p> <p>8 Musculoskeletal and Neurological Systems</p> <p>9 Cardiovascular, Respiratory and Renal Systems</p> <p>10 Digestion and Metabolism</p> <p>11 Regulation and Responses</p>
Labs	Labs, seminars, workshops etc... Each FRS is usually delivered 3 or 4 times to groups of approximately 60–80. These sessions are designed to support and augment core learning.
Lectures	Lectures, seminars delivered to entire year group.
Vocational Studies (VS)	Throughout year, one 3-hour session per week encompasses communication skills, ethics, hospital and GP visits, personal and professional development and community health. Small groups of 8-10 per group.

Clinical Skills	<p><b>Three</b> sessions are delivered by VS tutor to small groups. The systems covered are: Musculoskeletal &amp; Neurological Cardiovascular &amp; Respiratory Gastrointestinal &amp; Renal</p> <p>Also taught:</p> <ul style="list-style-type: none"> <li>• Blood glucose measurement using reagent strips with and without a glucometer and interpretation</li> <li>• Subcutaneous administration of insulin</li> <li>• Regional examination of the musculoskeletal system part 1 lower limb</li> <li>• Neurological examination</li> <li>• Nutritional assessment/BMI</li> <li>• Genitourinary examination including urinalysis using multistix and advising how to collect a midstream specimen of urine and pregnancy testing</li> <li>• Cleanliness champion programme (continued from Year 1)</li> <li>• Respiratory examination including: <ul style="list-style-type: none"> <li>○ PEFR</li> <li>○ Peak flow meter</li> <li>○ Demonstration of devices for inhaled medication</li> </ul> </li> <li>• Cardiovascular examination including heart sounds</li> <li>• Basic life support for in-hospital Airway skills</li> <li>• Moving and Handling on line programme continued from Year 1</li> </ul>
Clinical Practice (CP)	<b>Six</b> Clinical Practice sessions take place alternately for students in Hospital and General Practice. The content reflects Clinical Skills sessions.
Student Selected Component (SSC1)	The first of the 3 SSCs throughout the programme is taken in year 2. All SSCs comprise a 5 week dedicated teaching block. Students select from a range of SSCs (or in later years can propose their own). Each SSC has a co-ordinator who is responsible for delivery and assessment of the module.

<b>Third Year Activities</b>	
Case-Based Learning (CBL)	The format for CBL for year 3 is quite different from years 1 & 2. It is designed to enable students to practise hypothetico- deductive reasoning. The facilitator also functions in a slightly different role. All facilitators in year 3 are clinicians.
Labs	Labs, seminars, workshops etc... Each Lab is usually delivered 3 or 4 times to groups of approximately 60–80. Each is designed to act as a resource for learning in CBL.
Lectures	Lectures for the entire year group.
Clinical Skills	<ul style="list-style-type: none"> <li>• Examination of peripheral vascular system</li> <li>• Examination of the eye</li> <li>• Assessment of Mental State</li> <li>• Examination of the Ear</li> <li>• Cranial Nerve Examination</li> <li>• Breast Examination on Manikin</li> <li>• Intermediate CPR, including defibrillation</li> <li>• Managing an ECG monitor/performing and interpreting a 12 lead ECG **</li> <li>• Heart sounds using HARVEY</li> <li>• Rectal Examination</li> <li>• Faecal occult blood testing</li> </ul>

	<ul style="list-style-type: none"> <li>• Establishing venous access and setting up an infusion **</li> <li>• Cleanliness champion programme (continued from Year 2)</li> <li>• Regional examination of the musculoskeletal system – part 2 – upper limb and back</li> <li>• Examination of the cranial nerves</li> <li>• Breast examination</li> <li>• Examination of the breast on manikin</li> <li>• Assessment of the mental state</li> <li>• Examination of the peripheral vascular system</li> <li>• Scrubbing up for surgical and sterile procedures **</li> <li>• Cardiac arrest management</li> <li>• Defibrillation</li> <li>• Nebuliser, MDI</li> <li>• Personal Protective Equipment in clinical practice</li> <li>• Basic suturing including safe use of local anaesthetics and basic wound management</li> <li>• Catheterisation</li> <li>• Nasogastric Tube</li> </ul> <p>**video podcast available to download from VALE Clinical Skills Suite**</p>
Clinical Practice (CP)	Throughout year (except during SSCs) students alternate each week between Hospital Clinical Practice and Community Clinical Practice. Hospital CP and Community CP is 1 full day every other week.
Communication Skills	1 FRS - Introduction to year 3 Communication Skills Thereafter 5 small group sessions with a tutor and 7 students. Two of the group sessions are in Block 12 and one in each of the remaining blocks (13, 14 ,15)
Student Selected Components (SSC 2)	The second SSC is taken in year 3. The SSC comprises a 5 week dedicated learning block. Students select from a range of SSCs (or from SSC2 onwards can self propose). Each SSC has a co-ordinator who is responsible for delivery and assessment of the module. Details are available on the web site.

<b>Fourth Year Activities</b>	
Educational Supervisors	Years 4 involves, 5 week clinical attachment rotations for students covering the following disciplines: Medicine x 2, Surgery and associated specialities x 2, Psychological Medicine x 1, Child Health and associated specialities x 1, Obstetrics & Gynaecology x 1, General Practice x 1, Neurology & Cardiology, Emergency Medicine x 1, ENT/Ophthalmology x 1
Clinical Skills	<p>Clinical skills covered in year 4. Group sizes vary.</p> <p><b>Year 4 Skills:</b> Pharmacology V skills ** Radial Artery Puncture **</p> <p>Year 4: Recognition and Management of the Acutely ill patient (2 Day programme)</p> <ul style="list-style-type: none"> <li>• Male and female urinary catheterisation **</li> <li>• Safe use of blood products</li> </ul>

	<ul style="list-style-type: none"> <li>• Pelvic examination</li> <li>• Taking a cervical smear and vaginal swabs</li> <li>• Arterial blood gas sampling and interpretation **</li> <li>• Pulse Oximetry</li> <li>• Administering Oxygen</li> <li>• 12 lead ECG recording **</li> <li>• Child health including: <ul style="list-style-type: none"> <li>○ Intraosseous needle insertion</li> <li>○ Lumbar puncture</li> <li>○ Venepuncture **</li> <li>○ Child urinary catheterisation</li> </ul> </li> </ul> <p>**video podcast available to download from VALE Clinical Skills Suite**</p>
Communication Skills	Communication skills feedback over year 4 during 5 week GP attachment.
Academic Days	Lectures and seminars sessions delivered to entire class year (240 +).
Student Selected Component (SSC 3)	SSC 3 is taken in year 4. The SSC comprises a 5 week dedicated teaching block. Students select from a range of SSCs, or they can self-propose.

<b>Fifth Year Activities</b>	
Educational Supervisors	Years 4 involves, 5 week clinical attachment rotations for students covering the following disciplines: Medicine x 2, Surgery and associated specialities x 2, Psychological Medicine x 1, Child Health and associated specialities x 1, Obstetrics & Gynaecology x 1, General Practice x 1, Neurology & Cardiology, Emergency Medicine x 1, ENT/Ophthalmology x 1
Clinical Skills	<p>Clinical skills covered in year 5. Group sizes vary.</p> <p><b>Year 5 Skills:</b>  ECG **  Immediate Life Support, leading to Resuscitation Council Certification  Radiology  Radial Artery Puncture **</p> <p>Year 5:  Acute Care Days</p> <ul style="list-style-type: none"> <li>• IV therapy</li> <li>• Preparation of Intravenous Fluids and use of infusion devices</li> <li>• Pain control</li> <li>• Blood cultures **</li> <li>• Immediate Life Support course</li> <li>• Stirling simulator</li> <li>• Paediatric emergencies and basic life support</li> <li>• Insertion of a Nasogastric tube **</li> </ul> <p>**video podcast available to download from VALE Clinical Skills Suite**</p>
Communication Skills	Communication skills feedback over year 5 during 5 week GP attachment and sign up session.
Academic Days	Lectures and seminars sessions delivered to entire class year (240 +).



Preparation for Practice (PfP)	Year 5 students will undertake a 9 week Preparation for Practice block comprising 3 weeks in the University followed by 6 weeks in hospital in order to prepare them for life as an FY1 doctor. Where possible, the students will be attached to the unit where they will start as an FY1 in August.
--------------------------------	--

### **IT SKILLS**

IT is an important tool, which can be employed to make study more effective. For this reason a programme of courses offering training for all students has been developed and is now run by the IT Services Unit of the University of Glasgow. The courses making up the programme are open to all students of University of Glasgow, and are free of charge for them, the costs being borne by the University. Students interested in courses run by the IT Education Unit can visit <http://www.gla.ac.uk/services/it/forstudents/ittraining/>

### **ELECTIVES**

Junior and senior electives are intended to permit students to undertake, in or away from Glasgow, the study of any aspect of the practice of medicine in recognised clinical specialities, including general practice and public health, which has the approval of the Dean. Electives may also include research in an appropriately supported setting. During an elective, students are required to spend all four weeks in a particular unit with a single supervisor. Junior electives only may be an extension of a Student Selected Component.

In general the aim of the elective programme is to provide students with high quality experiences involving personal, professional and clinical challenge, which are relevant to their developing competence as future doctors.

Further information on electives and elective funding opportunities is available from the student web pages.