THE UNIVERSITY OF EDINBURGH

PROGRAMME SPECIFICATION FOR BACHELOR OF MEDICINE AND BACHELOR OF SURGERY (MBChB)

1) Awarding Institution: University of Edinburgh

2) Teaching Institution: University of Edinburgh

3) Programme accredited by: the General Medical Council UK

4) Final Award: Bachelor of Medicine and Bachelor of Surgery

5) Programme Title: Medicine

6) UCAS Code: A100
Relevant QAA Subject Benchmarking Group(s): Medicine

7) Postholder with overall responsibility for QA: Professor Sir John Savill

8) Date of production/revision: September 2011

9) External Summary (200-250 words)

The medical school at Edinburgh has a long and prestigious tradition dating back to 1726. In the 18th century, graduates famously established new medical schools across the world and Edinburgh alumni continue to be acknowledged as world-class researchers, clinical innovators and authors of textbooks. Although proud of its tradition, the School looks to the future. The University of Edinburgh is a centre of excellence for research and in the 2008 Research Assessment Exercise was top in the UK for hospital-based medical research.

Distinctive features of the educational experience include an emphasis on the sciences and humanities underpinning clinical practice; research skills and enquiry-led learning; a blend of traditional and innovative teaching and learning methods including lectures, problem-based learning, e-learning, simulation workshops and clinical attachments; and clear guidance on life long professional development and career planning,

As in most UK medical schools today Edinburgh's students engage in clinical learning from year 1 through scenario-based discussions, clinical projects, community-based interviews with patients and clinical skills workshops. In years 3 and 4 students build on these foundations in their rotations through the clinical specialties in hospital and community-based attachments. These aim to give students experience in all the major clinical disciplines to prepare them for work as a junior doctor and to inform their decisions about careers from an early stage. Throughout, there is significant project work designed to develop students' abilities in enquiry-led learning and research. Forty percent of students undertake an intercalated degree at the end of year 2 to build on their interest in the academic disciplines and research; and many students engage in projects with academic and clinical staff in vacations and extra-curricular time. The fifth and final year of the programme emphasises apprenticeship in a multi-professional team to prepare students for clinical practice.

Edinburgh medical graduates are known to have a strong academic basis to their practice. They are very successful in finding posts across the UK and recent research suggests the programme equips them well for postgraduate study. In addition students speak of the pleasures of living in one of the most beautiful and vibrant cities in the world, with the Scottish countryside on its doorstep.

10) Educational aims of programme:

The MBChB degree from the College of Medicine and Veterinary Medicine at the University of Edinburgh aims to prepare students for medical practice as a Foundation Year 1 doctor and subsequently for a fulfilling career. To do this its courses are designed to develop the knowledge and understanding, the skills and competences, and the attitudes and attributes required by the profession.

The educational principles underlying the format of the MBChB are to:

- preserve and foster the enthusiasm of students, by avoiding overload of factual learning and assessment, providing clear learning outcomes, offering student-selected components throughout the curriculum, and ensuring a supportive learning environment
- give students a high degree of responsibility for their own learning, encourage a questioning and critical approach
- to provide prompt detailed academic feedback during teaching and after assessments to clarify misunderstandings and direct future learning
- train students to integrate knowledge, extrapolate it to new situations, and to communicate synthesised information effectively
- place as much learning as possible in a context of patient care
- ensure that curriculum outcomes, teaching content, assessment, teaching methods and environment are aligned in the interests of learning, based on best available evidence
- teach and reinforce the multi-disciplinary nature of patient care and the importance of partnership, in an open curriculum
- provide a comprehensive grounding in the principles of health and disease, including the appropriate basic science, in order to enhance understanding of clinical problems
- promote a professional attitude towards the practice of medicine and to prepare students for life-long learning
- help students to retain what they have learnt for the long term through the use of appropriate iterative teaching and assessment methods
- use a rich array of teaching and learning methods including lectures, tutorials, problem-based learning, practical skills workshops, simulation-based scenarios and clinical attachments and to embed e-learning where appropriate to enhance the quality and the efficiency of teaching and learning
- conform to the principles and outcomes in ‘Tomorrow’s Doctors’ (General Medical Council 2009), ‘The Scottish Doctor’ (Scottish Deans Medical Education Group) and the QAA Benchmark statement for Medicine

11) Programme learning outcomes:

The MBChB has 12 Programme Outcomes grouped under 3 headings described below. The details of each of the 12 Outcomes is given under sections 11a-f.

AS A SCHOLAR AND A SCIENTIST the Edinburgh medical graduate will be able to apply to medical practice and ongoing training, the principles, methods and knowledge of the relevant areas of academic study; take a scholarly approach to clinical practice; and apply scientific method and approaches to questions in patient care, in medical research and in improving health service delivery. They will be able to demonstrate competence in the following areas:

1. **Biomedical Sciences**
2. **Psychological Aspects of Medicine**
3. **Social Sciences and Public Health**
4. **Evidence-Based Medicine & Research**

AS A PRACTITIONER the Edinburgh medical graduate will be able to undertake initial assessment, management, review and ongoing care of patients safely, under supervision proportionate to the clinical situation, recognising limits of competence and experience, and seeking help from colleagues appropriately. They will be able to demonstrate competence in the following areas:

5. **The Consultation**
6. **Presentation, Diagnosis and Management**
7. **Clinical Communication**
8. **Emergency Care, Clinical and Resuscitation Skills**
9. **Clinical Pharmacology and Therapeutics**
10. **Medical Informatics**

AS A PROFESSIONAL the Edinburgh graduate will be able to take a reflective and self-directed approach to the study and practice of medicine, promote multi-professional teamworking, accept responsibility for teaching others, and continuously enhance patient care. The graduate will demonstrate professional judgment and adherence to the ethical, professional and legal responsibilities of a junior doctor in everyday practice, whilst paying attention to his or her own health, wellbeing and professional development and seeking assistance where necessary. They will be able to demonstrate competence in the following areas:

11. **Medical Ethics, Legal and Professional Responsibilities**
12. **Personal Professional Development**

11a) Knowledge and understanding

Biomedical Sciences: The Edinburgh medical graduate will be able to apply to medical practice the biomedical scientific principles, method and knowledge relating to relevant sciences including anatomy, biochemistry, cell biology, genetics, immunology, microbiology, molecular biology, nutrition, pathology and physiology.

Psychological Aspects of Medicine: The Edinburgh medical graduate will recognise and assess important psychological and behavioural aspects of health, illness and disease; and respond appropriately to these aspects, using strategies such as explanation, advice and reassurance to address them.

Social Sciences and Public Health: The Edinburgh medical graduate will implement, at a clinical level, knowledge of how to prevent disease, prolong life and promote health through the organised efforts of society; and demonstrate understanding of how to analyse a population's health problems, establish the causes and effects of these problems and assist appropriately in implementing effective solutions.

Presentation, Diagnosis and Management: The Edinburgh medical graduate will be able to describe the modes of presentation and natural history of diseases; recognise and interpret the signs and symptoms with which people present to doctors, construct a differential diagnosis, and choose appropriate methods to investigate, treat and care for patients in a multi-professional setting.

Clinical Pharmacology and Therapeutics: The Edinburgh medical graduate will be able to describe how drugs act and apply this knowledge to clinical practice to prescribe clearly and accurately, to match appropriate drugs to the clinical context, to review the appropriateness of medication and to evaluate the potential benefits and risks

Medical Ethics, Legal And Professional Responsibilities: The Edinburgh graduate will practise medicine safely, within an ethical framework, with insight and compassion, according to the legal requirements and professional expectations of medical practice in the UK

11b) Graduate attributes: Skills and abilities in Research and Enquiry

Evidence-Based Medicine & Research: The Edinburgh medical graduate will use the best available medical evidence, found through a systematic search and appraisal of the relevant information sources, to inform their clinical decisions; and develop new knowledge or personal understanding through the application of basic research methods and skills.

Medical Informatics: The Edinburgh medical graduate will use computers, computing, information and information technology effectively in a medical context

Personal Professional Development: The Edinburgh graduate will take a reflective and self-directed approach to the ongoing study and practice of medicine, promote teamworking and develop others' learning in order to enhance patient care, maximise effectiveness and enjoy career satisfaction.

11c) Graduate Attributes: Skills and abilities in Personal and Intellectual Autonomy

Medical Ethics, Legal And Professional Responsibilities: The Edinburgh graduate will practise medicine safely, within an ethical framework, with insight and compassion, according to the legal requirements and professional expectations of medical practice in the UK.

Personal Professional Development: The Edinburgh graduate will take a reflective and self-directed approach to the ongoing study and practice of medicine, promote teamworking and develop others' learning in order to enhance patient care, maximise effectiveness and enjoy career satisfaction.

11d) Graduate Attributes: Skills and abilities in Communication

The Consultation: The Edinburgh medical graduate will undertake an effective and efficient consultation that is sensitive to the needs of the patient.

Clinical Communication: The Edinburgh medical graduate will communicate clearly, sensitively and effectively with patients and their relatives, and with colleagues from the medical and other professions.

11e) Graduate Attributes: Skills and abilities in Personal Effectiveness

Personal Professional Development: The Edinburgh graduate will take a reflective and self-directed approach to the ongoing study and practice of medicine, promote teamworking and develop others' learning in order to enhance patient care, maximise effectiveness and enjoy career satisfaction.

11f) Technical/practical skills

The Consultation: The Edinburgh medical graduate will undertake an effective and efficient consultation that is sensitive to the needs of the patient.

Emergency Care, Clinical and Resuscitation Skills: The Edinburgh medical graduate will be able to recognise and systematically assess acutely unwell patients and institute immediate management, including first aid and resuscitation; and perform a range of clinical skills and procedures safely and effectively.

Clinical Pharmacology and Therapeutics: The Edinburgh medical graduate will be able to describe how drugs act and apply this knowledge to clinical practice to prescribe clearly and accurately, to match appropriate drugs to the clinical context, to review the appropriateness of medication and to evaluate the potential benefits and risks.

Medical Informatics: The Edinburgh medical graduate will use computers, computing, information and information technology effectively in a medical context.

12 Programme structure and features

The section presents the structure of the programme in relation to the University's Curriculum Framework.

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Entry Requirements

Year	1	2
SQA	Higher: AAAAB[1]	
GCE	A levels: AAAb[2]	
Int. Baccalaureate	37 points[3]	
Graduate Entry	2.1 honours degree [4]	2.1 honours degree [4]

[1.] Chemistry and two from Biology, Maths and Physics must be offered. Biology, Chemistry, English and Maths must be offered at standard grade 2 or intermediate 2 grade B.

2. Three A levels including Chemistry and one of Biology, Maths or Physics should be offered with one AS level in a fourth subject. Biology should be offered at least at AS.

[3.] International Baccalaureate – including grades 667 at higher level. Chemistry and one other science at higher level required. Biology is preferred at higher level. If not taken as part of the IB, Biology, Maths and English in GCSE, standard grade (2) or intermediate 2 at grade B or above should be offered.

[4] School leaving qualifications with minimum at one sitting of BBBB in SQA Highers or BBB at A level are also required.

Medicine is a long-standing participant in the University's Pathways to the Professions scheme, which aims to increase the proportion of under-represented groups in the professional programmes of Medicine, Law, Architecture and Veterinary Medicine, while maintaining academic standards.

Further information available at:
http://www.ed.ac.uk/studying/undergraduate/degrees?id=4,40&cw_xml=subject.php

Degree Programme Table

Normal year taken	Course	Schedules	Level	Credit Total
1	Molecules to Society 1a – MBCH08011	R	8	50
	Molecules to Society 1b – MBCH08010	R	8	50
	Student Selected Component - MBCH08006	R	8	20
2	Molecules to Society 2a – MBCH09019	R	9	40
	Molecules to Society 2b – MBCH09018	R	9	40
	Student Selected Components 2a and 2b – MBCH09006	R	9	20
	Introduction to Clinical Practice - MBCH09016	R	9	20
	INTERCALATED HONOURS DEGREE OPTION (BMedSci)			
3	Process of Care – Locomotor System - MBCH09004	R	9	25
	Process of Care – Cardiovascular System - MBCH09002	R	9	25
	Process of Care – Respiratory System - MBCH09001	R	9	25
	Process of Care – Gastrointestinal System - MBCH09003	R	9	25
	End of Year 3 Synoptic Assessment - MBCH09017	R	9	10
	Student Selected Component 3 - MBCH09013	R	9	10
	Psychiatry - MBCH09008	R	9	0
4	Psychiatry – MBCH10003	R	10	30
	Obstetrics and Gynaecology – MBCH10004	R	10	30
	Neurosciences - MBCH10014	R	10	20
	Renal/Urology – MBCH10013	R	10	20
	Haematology/Oncology/Palliative Care/Breast Disease – MBCH10012	R	10	20
	Student Selected Component 4 – MBCH10011	R	10	25
	General Practice – MBCH10015	R	10	15
	Dermatology - MBCH10018	R	10	5
	Ophthalmology - MBCH10017	R	10	5
	Otolaryngology - MBCH10016	R	10	5
	End of Year 4 Synoptic Assessment - MBCH10010	R	10	5
5	Child Life and Health – MBCH11001	R	11	30
	Medicine – MBCH11002	R	11	30
	General Practice and Geriatric Medicine – MBCH11003	R	11	30
	Surgery; Accident and Emergency Medicine; Intensive Care Medicine; Anaesthetics and Pain Medicine - MBCH11004	R	11	30
	Student Selected Component 5 – MBCH11005	R	11	30
	Final Synoptic Assessment - MBCH11007	R	11	30

Teaching, Learning and Assessment Methods

Recognising that some methods of teaching and learning suit some students and some learning outcomes better than others the programme draws on a range of approaches. Students are expected to be actively engaged, often collaboratively with peers, to aid their learning through discussion, project work and practical classes. Edinburgh has retained and continues to see the value of the lecture as a means of signposting priorities and summarising learning in a vast field; to explain difficult concepts and cutting edge research; and to inspire students. Since 1998 we have had a strong thread of problem based learning throughout years 1 and 2 to encourage students to place their theoretical knowledge in the context of clinical practice, to talk out and consolidate their learning and to develop professional attributes such as self-regulated, collaborative learning and group-working skills. Throughout all 5 years there are workshops in clinical skills and increasing opportunities to practise complex clinical activities in simulated situations with mannequins. The Edinburgh Electronic Medical Curriculum (EEMeC) is the virtual learning environment that is the hub for the programme, providing all curriculum information, computer aided learning (CAL) packages and academic discussion boards. But of course much of the learning takes place with real patients across a range of everyday clinical settings such as hospitals, General Practice, and community care.

The assessment is designed to match the learning outcomes and encourage students in appropriate learning activities. Therefore a range of formats is used including written discursive essays, wiki reports on projects, oral presentations, peer assessment of team-working, practical clinical examinations, and online examinations where students type essay answers and choose correct options for multiple choice questions.

Progression Requirements:
No student may proceed to the next year of study for the MBChB programme until he/she has passed all components of the previous year of the programme including specified attendance requirements. A summary of the requirements is given below. Full progression requirements in each year are detailed in the study guides and on the Edinburgh Electronic Medical Curriculum (EEMeC).

Assessment
The assessment framework is outlined below. Specified attendance requirements must also be fulfilled to permit progress to the following year. Students failing the resit, or unable to complete the year because of mitigating circumstances, may appeal to College for permission to repeat the year. Detailed assessment information is given in the course study guides and students must consult these to ensure they fully understand what is required of them to progress. Learning from a portfolio of reports built up by each student over Years 1–5 is assessed at appropriate stages.

Year 1: The First Professional Examination, completed by the end of the first year, is made up of in-course assignments in the modules and assessments at the end of each semester in Molecules to Society 1 and the end of the Student Selected Component; each of these must be passed before proceeding to the second year of the MBChB programme.

Year 2: The Second Professional Examination, completed by the end of the first year, is made up of in-course assignments in the modules and assessments at the end of each semester in Molecules to Society 2 and the end of the Student Selected Components and Introduction to Clinical Practice; each of these must be passed before proceeding to the third year of the MBChB programme.

Year 3: The Third Professional Examination is made up of four module assessments, portfolio case reports from each module, an assessment of the Student Selected Component and an end-of-year clinical assessment comprising a practical and an online examination and is completed by the end of the third year. Students are required to pass this Examination before proceeding to the fourth year of the MBChB programme.

Students who have successfully achieved 240 credits from the First and Second Professional Examinations and 80 of the available 120 credits from the Third Professional Examination are eligible to be considered for an ordinary Bachelor Degree in Medical Sciences, BMedSci (Ordinary) without further assessment.

Year 4: The Fourth Professional Examination is made up of ten module assessments, including a Student Selected Component dissertation, portfolio case reports, and a synoptic portfolio-based assessment. It is examined over three carousels and completed by the end of the fourth year. Students are required to pass this Examination before proceeding to the fifth year of the MBChB programme.

Year 5: The Final Professional Examination is completed by the end of the fifth year. In addition to the assessment of individual modules and a portfolio overview essay, students have a three-week period of final assessments in June. The final assessments include an oral examination or 'Viva' based on the portfolio, a Clinical Practice Examination and a 'Safety in Practice and Prescribing' online examination, based on clinical scenarios. There will be an opportunity, in the third week, for additional testing for students who fail the Clinical Practice Examination or the Viva. Candidates who are unsuccessful after the additional tests will have a resit attempt in November.

Merits, Distinctions, Honours and Prizes: Various awards are made to recognise excellence during the programme. In general terms, Merits are awarded in individual subjects and disciplines. Distinctions are awarded for outstanding performance over a whole year of the programme. The degree of MBChB with Honours may be awarded to students who have shown a consistently high level of performance during the whole 5 years of the programme.

Addressing the University's Strategic Plan,

- social responsibility
- sustainability
- equality and diversity.

Information throughout the Programme Specification is relevant but particularly under Entrance Requirements and Student Support.

All applicants and students declaring a disability are treated on an individual basis, in accordance with GMC guidance and once admitted, are advised by the Disability Office which also negotiates reasonable adjustments to teaching, learning and assessment methods.

The MBChB programme includes teaching on a range of topics which promote social responsibility, sustainability, equality and diversity including medical ethics, sociology, disability, public and international health, and pharmaco-economics.

13. Other Items

Student Support: The Director of Student Affairs has responsibility for the system within the undergraduate MBChB programme designed to provide support for every student through a named Director of Studies who acts as the student's advocate. Students are required to meet with their Director of Studies regularly, and may discuss academic, professional and pastoral matters in confidence. The University also offers a comprehensive range of support services and access to a hardship fund.