

University of Cambridge: Programme Specifications

Every effort has been made to ensure the accuracy of the information contained in this programme specification. At the time of publication, the programme specification has been approved by the relevant teaching Faculty or Department. It is, however, natural for courses to develop and change over time and we reserve the right, without notice, to withdraw, update or amend this programme specification at any time.

MB BChir Standard

| | | |
|-----|---------------------------------------|-------------------------|
| 1 | Awarding Body | University of Cambridge |
| 2. | Teaching Institution | University of Cambridge |
| 3. | Accreditation Details | General Medical Council |
| 4. | Name of Final Award | MB, BChir |
| 5. | Programme Title | Clinical Medicine |
| 6. | UCAS Code | A100 |
| 7. | Benchmark Statement(s) | Medicine |
| 8. | Qualifications Framework Level | M |
| 9a. | Date of Revision | July 2007 |
| 9b. | Last Reviewed | July 2007 |

The programme in clinical medicine is based at the Cambridge University Teaching Hospitals NHS Trust (Addenbrookes Hospital) situated on the Cambridge Biomedical Campus, an outstanding centre for clinical practice, medical education and biomedical research. Students also study at a number of Regional Partner NHS Trust hospitals throughout East Anglia and in teaching general practices both in Cambridge and the surrounding region.

Aims of the Programme

At the start of the programme there is an Introductory Course of three weeks duration.

By the end of the Introductory Course, students should:

have an introduction to the clinical course including an outline of the three year programme, an overview of each of the curriculum themes and advice about the on-line portfolio;

meet their clinical supervisors and follow a programme of instruction in basic clinical method including fundamentals of communication skills, basic history taking and clinical examination;

receive an introduction to patient investigation and clinical reasoning;

By the end of the 'Clinical Method' course students will be competent in basic clinical method. They will have met adult patients in hospital and in primary care with a wide range of acute and chronic general medical and surgical problems and will be able to::

communicate effectively;

take a clinical history;

perform a physical examination;

document their findings appropriately;

show competence in basic practical skills

prepare and discuss a differential diagnosis;

suggest appropriate investigations;

interpret the results of simple clinical investigations.

By the end of the 'Life' course, students will be competent in the clinical, communication and practical skills relevant to the medical specialities throughout all stages of life. They will have met diverse patients both in hospital and in primary care and will:

be able to recognise different patterns of health and disease throughout life and in different communities

have produced portfolio cases that reflect the presentation of disease throughout life;

be familiar with issues relating to physical and mental disability in patients of all ages;

have studied the diagnosis and management of a range of health problems by means of linked placements in primary and secondary care;

know about the public health aspects of medicine relating to screening, prevention and population health at different stages of life.

By the end of the 'Preparation for Practice' course, by integrating the curriculum themes in further clinical practice, students will have developed the consultation, clinical management, diagnostic judgement and professional skills required for graduation. Students will have responsibility for patient care under close supervision in a variety of clinical environments. This will be facilitated by a practical skills exam early in Stage 3. By the end of the course, students will:

have had experience of clinical or translational research;;

be able to demonstrate their understanding of General Practice as a speciality;

have acquired the Intermediate Life Support (ILS) Certificate;

be able to recognise the severity of illness and institute immediate and continuing care to patients of any age group who are acutely and seriously unwell, regardless of the underlying cause;

be able to demonstrate the appropriate knowledge, skills and attitudes required by the Clinical School and by the General Medical Council to practise as a doctor in the postgraduate Foundation programme.

Learning Outcomes of the Programme

Teaching & Learning Methods

Environment: throughout the course, the emphasis is on learning in clinical settings: at the bedside, in outpatient clinics and in GP surgeries supported by seminars, tutorials and discussion groups.

Clinical teaching is organized in firms with additional opportunities to attend specialist outpatient clinics. Most of the course is based in Cambridge although at least one third is delivered in regional hospitals to take advantage of the different educational opportunities which they are able to offer including:

small student group sizes;

experience of different hospital environments;

exposure to a different range of patients and ethnic populations;

building relationships between students and consultants throughout the region, facilitating progression to the pre-registration/foundation period.

Learning Methods - Supervisions, Tutorials and Lectures: learning in small groups is important with an average of four - six in a Clinical Supervision group. Firm sizes are also small, between two (regional hospitals) and seven (Addenbrooke's); in Stage 3 there is a maximum of two students per firm anywhere. Tutorials in General Practice are given on a one-to-one or one-to-two basis. The majority of clinical teaching is delivered to small groups of students by practising clinicians in all specialities.

Students are expected to play an active role in their clinical firm, to follow up a group of patients including watching special investigations or treatment and to present patients on ward rounds and in clinical meetings.

Weekly supervisions are organised for small groups of students in Cambridge College groups. Throughout the Clinical Course, one-hour, weekly supervisions take place at the bedside for students which relate to the appropriate curriculum theme. Supervisions focus on improving clinical skills and reinforcing the lessons of Clinical and Communication Skills. Topic-based tutorials and discussions of ethical problems may also be included.

In general, there are no lectures during clinical placements. Self-directed learning is encouraged; students are given guidance on learning methods in Stage 1 and autonomous learning fostered by the on-line portfolio.

Core curriculum learning programmes are available electronically so that the curriculum related to individual clinical placements can be delivered simultaneously to students in Cambridge or on regional hospital placements.

Review and Integration (R&I) Weeks: Students are brought together for a series of 10 'Review and Integration' weeks spread throughout the clinical course. These include a programme of lectures covering subject matter that, for educational or practical reasons, is best delivered in large groups. These weeks also facilitate student interaction within the year group.

Practical Clinical Skills: opportunities for learning clinical skills are provided in all placements and reinforced by Clinical Supervisors. A Clinical Skills Unit (CSU) based in Addenbrooke's has responsibility for planning and delivery of an integrated programme of practical clinical skills supported by clinical skills centres and staff in the regional hospitals. The Skills curriculum is delivered simultaneously in Cambridge and the region.

Library and IT Facilities: all Clinical Students register with the Medical Library, which is a branch of the main University Library. It is located on the top two floors of the Clinical School building, and has over 170 study places. The book section contains over 34 000 textbooks, the majority of which may be borrowed. There are about 64 000 periodical volumes, and about 1000 current periodical titles. Self-service photocopying facilities are available.

The Medical Library's Wolfson Technology Resource Centre is a purpose-built, multi-media computer room equipped with networked PC and Macintosh workstations and printers, plus other peripherals such as scanners and Zip drives. These offer a variety of word-processing and other applications, together with World Wide Web and telnet access. There is an extensive range of computerised information services, including end-user access to the Medline, Embase, and Cochrane Library databases. Further computer terminals are located in seminar rooms in the Clinical School and in the Sherwood Room (the student common room) and a number of loan laptops are available through the library. All regional partner

NHS Trusts have a requirement for library and IT provision built into their SIFT contractual agreement.

The Clinical and Biomedical Computing Unit (CBCU) manages the Educational Resource Web (ERWeb) which hosts all the academic and administrative material for the curriculum. The online student and programme evaluation system and certain online assessments are part of the ERWeb system.

Assessment Methods

A range of formative and summative assessments are in place using a variety of methodologies. All assessments are produced and marked according to validated standard-setting and marking techniques.

All Stages: Assessment occurs at the end of each clinical placement and may include the result of observation by the multidisciplinary clinical team together with more formal assessments such as Multiple Choice Question (MCQ) tests or Mini-Clinical Evaluation Exercises (Mini-CEX's) organised on the firm. The assessment methods for each course component are determined by Deanery team in consultation with Specialty Directors and Theme Co-ordinators; they are explained to students in the Resource Information published on the Web.

Placement Records: for each Stage of the course, assessment results are recorded in a written report. A Placement Record for each student is completed at the end of individual placements by the Specialty Director, regional hospital Undergraduate Specialty Tutor or responsible consultant.

Evaluation criteria are as follows:

| | |
|----------------------|---|
| Attendance: | Determined for each placement as appropriate by the Specialty Director and published in the Specialty Resource Pack. Examples of Satisfactory: <ul style="list-style-type: none">• Attends a minimum X Ward Rounds, X Outpatient Clinicals and X Theatre Sessions.• Full participation in all activities; on-call, clinics, ward rounds, teaching. |
| Overall Performance: | O = Outstanding: in addition to 'P' qualities – demonstrates commitment and enthusiasm and a willingness to do more than expected; responds well and quickly under pressure; exceptional depth and breadth of subject knowledge; behaviour shows a high degree of consideration for patients. P = Pass: demonstrates interest and a willingness to learn; has a good grasp of core subject knowledge and skills; is organised; works well within the team; behaviour shows appropriate respect for patients. B = Borderline: contributes relatively little other than being present, has only minimal subject knowledge; is poorly organised – does not work well within the team or fails to engage; behaviour towards patients gives cause for concern. F = Fail: Lacks interest and makes no effort to learn, demonstrates very little subject knowledge; is a disruptive member of the team; behaviour suggests unacceptable behaviour towards patients. |
| Assessment Score: | The score/mark for any end-of-placement test expressed as a percentage. |

Student Selected Component: assessed by SSC supervisors in the way designed by them to be most appropriate to the activity concerned.

Portfolio Assessment: Students' developing portfolios are assessed formatively by Clinical Supervisors and GP Tutors.

Stage Assessments - in addition to Placement Records

Stage 1:

Stage 1 concludes with an assessment comprising:

Written Test: multiple-choice and extended-matching questions covering all of the major clinical specialties represented in Stage 1.

Case Portfolio: four written cases assessed by each student's Clinical Supervisor.

Objective Structured Clinical Examination (OSCE): a series of about 20 stations designed to assess skills in three areas: Practical Clinical Skills, Clinical Examination and Communication Skills.

Stage 2:

Assessment methods for each Specialty are determined by Specialty Directors and are explained to students on the ERWeb.

Final MB: Part I and Part II are taken in May/June of year two.

Part I (Pathology): concerned with the application to human disease of the principles of pathology, it covers morphological and clinical aspects of pathology, including haematology, microbiology, chemical pathology, epidemiology, and preventive medicine. The examination is in three parts:

Written Examinations: Objective Test Questions, 2 hours; Essay Questions, 2 hours 20 min.

Practical Examination – Written answers based on case folders - 3 hours

Viva voce Examination (for distinction): - 2 x 15 min.

Part II (Clinical Paediatrics & Clinical Obstetrics & Gynaecology): designed to assess clinical skills, the examination comprises two Objective Structured Clinical Examinations (OSCE) each lasting 1.5 hours.

Stage 3:

Elective Report: all students submit a report on their elective the purposes of which are to:

- provide a detailed record of the elective period;
- provide experience in presentation of considered written work;
- contribute to data bank of elective opportunities for succeeding generations of students;
- be assessed by the Clinical Dean and College Directors of Studies for 'best elective report' award.

Mid-point Review: students whose progress is not satisfactory are brought to the attention of the Clinical Dean so that additional support may be organised if required.

Objective Practical Skills Examination (OSPE): about 15 stations to assess practical skills according to the requirements of Tomorrow's Doctors. When they have passed the OSPE, students may practise their skills under supervision on their ward-based Stage 3 placements.

Portfolios & Experience Logs: evidence of satisfactory completion is required before entry into Final MB.

Final MB Part III (Clinical Medicine): is taken in June of year three; performance is reported as 'Pass' or 'Pass with Distinction'. Exceptional performance is also recognised by the award of prizes. The examination is concerned with the principles and practice of Medicine and Surgery with Clinical Pharmacology and Therapeutics, Obstetrics and Gynaecology, General Practice, Public Health Medicine, Paediatrics, Psychiatry and other medical and surgical specialities including Anaesthesia, Clinical Oncology, Dermatology, ENT, Ophthalmology, Palliative Care and Surgical Anatomy.

The examination is designed to assess:

- knowledge and experience of Medicine and Surgery in their widest sense
- ability to apply that knowledge and experience to the management of patients
- ability to communicate effectively with patients and to respect their autonomy
- experience of ethical problems in clinical medicine.

Candidates may be asked to interpret radiographs and scans, electrocardiograms, clinical photographs and other clinical data.

Written papers are assessed without knowledge of the candidate's name.

The examination has five components:

Component 1: Multiple Choice Test (MCQ) – 3 hours

Component 2: Extended Matching Question (EMQ) – 3 hours

Component 3: Structured Essay Question (SEQ) – 2 hours

Component 4: Simulated Clinical Encounter Examination (SCEE) – 3 hours

Component 5: Clinical Examination (CE) – 3.5 hours

Course content - Introductory Course – 3 weeks

Students spend three weeks at Addenbrooke's on the Introductory Course. They meet their Clinical Supervisors who will support them as a member of a small, stable group, throughout the clinical course.

Stage 1- Clinical Method – 6 months

Stage 1 objectives are achieved by integration of curriculum themes with clinical material. Students are supported in moving into the clinical environment and towards self-directed, experiential learning. They begin their personal and professional development through exploration of ethical dilemmas, through examining students' own attitudes and values and via an appreciation of the patients' perspective of illness.

Medicine and Surgery Placements – 4 x 5 weeks: Students are attached to medical or surgical firms either at Addenbrooke's or at one of six regional hospitals (Bedford, Hinchingbrooke, Ipswich, Kings Lynn or Peterborough). Each student rotates through Cambridge Medicine / Cambridge Surgery / Regional Medicine / Regional Surgery. Students go to the same hospital for both regional placements. During these placements, students experience General Medicine, General Surgery Care of the Elderly and an introduction to

Acute Care.

Seminar programme: in the mornings during Medicine and Surgery placements, in the mornings students focus on clinical work and are encouraged to clerk patients and follow them up, including attending appropriate investigations. In the afternoons, there is a seminar programme for the entire student cohort, enabling all students to cover the same topic area week by week. Seminars are integrated between different specialties and combine to address all curricular themes. Distance learning materials replace some seminar teaching for students on Regional placements.

Primary Care – 8 days: groups of four students are attached to two general practices: wherever possible one close to Addenbrooke's and one close to their Regional teaching hospital. During each five week placement, students spend two days in their local host practice, seeing patients with conditions relevant to that week's topic area and seeing patients in opportunistic surgeries.

Review and Integration Weeks 1- 3: Pathology teaching occupies approximately 2.5 days of each of these weeks. Three other courses start in weeks 1 - 3 and run through the R & I programme to the end of Stage 3. "Frontiers in Medicine" showcase the excellent translational and clinical research being undertaken on the Addenbrooke's campus by members of the Clinical School and partner research organisations. There is a series of guest lectures around the subject of "Humanities in Medicine", with invited speakers from the wider University setting and beyond. "The Patient's Voice" enables a set of expert patients to meet the students and discuss their experiences of the health service and their illness.

Stage 1 Portfolio: Students develop a portfolio based on patients that they have seen including case write-ups and pieces relating to the various curricular themes.

Stage 1 Student Selected Component (SSC) – 5 Weeks: an activity chosen from a menu offered by the Clinical School or self-designed.

Stage 2 - Life Course - 10 months

This course comprises five x 8-week placements based on the stages of human lifespan:

Growth, Development and Childhood Illness

Women's Health

Major Adult Diseases (Cardio-thoracic medicine, Oncology and Infectious Disease)

Neurosciences, Rheumatology and Orthopaedics

Psychiatry

They all include a general practice component and student-directed learning based in the community.

In each Stage 2 placement students are attached to a relevant specialist hospital firm with coordinated input from other specialists representing the curricular themes.

Primary and Community Care, 4 x two weeks: Students spend the last two weeks of four of the Life Course placements studying General Practice and Community Care. Students learn about the relevant specialty in primary care and the community, as well as primary care overall within the curricular themes. Students are placed in groups of four, relating to a single practice throughout the Stage. In each fortnight, students spend one week attached to a general practice in which they see patients, work with allied health professionals and gather data for later presentation. They also spend one week in small groups, undertaking guided

student-selected learning related to community-based clinical scenarios. They explore the realities of living with illness in the community including meeting with community-based careers and organisations. At the end of each of the four two-week periods, students give an assessed presentation.

Review and Integration Weeks 4 - 8: all students cover the same material, irrespective of the topic addressed in their previous placement addressed. Pathology teaching occupies approximately 1.5 days of each of each week. The “Frontiers in Medicine”, and “Humanities in Medicine” and “Patients’ Voice” courses continue.

Portfolio: Students continue to assemble their portfolio based on patients that they have seen. This includes case write-ups and pieces relating to the various curricular themes. In particular, students identify patients with different cancers and with cardiovascular disease to form the basis of the reflective portfolio.

Stage 3: Preparation for Practice - 12 months

Students continue to develop their clinical, practical skills and communication skills. The focus of the final year is on equipping students with the knowledge, skills and attitudes that allow them to practise independently. Placements in Medicine, Surgery and Acute Care enable students to benefit from their experience and confidence playing a greater part in patient care.

SSC/Elective - 7 weeks: following a three-week holiday, the final year begins with an SSC/Elective which is an opportunity for students to exercise initiative and responsibility in organising a clinical or scientific elective of their own choice. Although some students choose to spend the seven weeks in a particular department within the Clinical School, most leave Cambridge for their elective, with about 90 % going abroad.

Student Selected Component (SSC) – “Cambridge Specials” – 4 Weeks: Students have access to translational and clinical research facilities and the other tertiary clinical centres for which Cambridge has a reputation world wide.

Primary Care – 4 Weeks: Students are attached in pairs to a practice that they have not attended earlier in the course. They see patients under the supervision of GP tutors, taking supported clinical decisions and following patients up. They are introduced to a patient with terminal illness in order to gain experience of palliative and terminal care in the community.

Hospital Placements

Students become involved in teams and have roles and responsibilities; they may be rostered to work in the evenings and weekends. Some students will be based in regional hospital locations for the entire period - these hospitals provide superb teaching opportunities. In each of the hospitals, Clinical Supervisors have been appointed to guide students through any problems and direct students to patients.

Senior Medicine and Surgery – two x 9 Weeks: Students are attached to medical and surgical teams around the region, either singly or in pairs. As far as possible, they play an integral role in the day to day work of patient care. They take responsibility for clerking and following up identified patients, including presenting the patients on rounds, performing practical procedures, escorting patients to investigation or therapy units, attending discharge planning meetings and other activities related to direct patient care. They prescribe using student prescription sheets which are inspected by the clinical team and form part of their portfolio of learning. During these placements, students also experience Dermatology, ENT, Medicine for the Elderly, Ophthalmology, Palliative Care and Radiology.

Acute Care – 9 Weeks: Students learn about the practicalities of assessing and managing patients with serious, acute and life - threatening illness across all specialties, to ensure that they are both competent and confident in this area before qualification.

Review and Integration Weeks 9 and 10: Review and Integration programmes continue, the focus in Stage 3 being on clinical management and all aspects of professionalism. The “Frontiers in Medicine”, Patient’s Voice and “Humanities in Medicine” courses continue.

Portfolio: Students complete their portfolio based on patients that they have seen including case write-ups and pieces relating to the various curricular themes including Palliative Care.

Longitudinal Student Selected Component: during their final year medical and surgical placements, students undertake a longitudinal SSC in small groups, studying a chosen area in depth on a weekly basis throughout the year.

Post Final MB

Foundation Post Shadowing - 1 week: students shadow the doctor in their first post-qualification post. Objectives of the week include: gaining insight into the organizational and operational problems to be faced as a newly-qualified doctor; improving clinical skills; obtaining direct experience of some of the practical procedures required and gaining experience of working in a multidisciplinary team. Students are not permitted to graduate until their certificate of satisfactory attendance has been submitted.

Foundation Programme - 2 years: To be eligible for full registration with the General Medical Council, a doctor must complete a period of supervised service in an approved post.

The University is responsible for certifying to the GMC that its graduates have satisfactorily completed their pre-registration training and requires certificates of service from employing authorities. Recruitment is by open competition and Cambridge graduates are likely to secure a post in the East Anglian region which meets their requirements.

Programme Requirements

Progression Requirements and Feedback

The current MB, BChir completion rate is nearly 100% with most students passing at first attempt. There are usually no more than one or two withdrawals each year.

Throughout the Course

Placement Records: Specialty Directors/Undergraduate Specialty Tutors provide a report on each student at the end of a placement, their purpose is to:

- monitor attendance and performance - information is held in a student's electronic record;
- identify students with specific problems ensuring that early action may be taken;
- monitor the quality of education provided.

Although in-course performance does not directly contribute to Final MB, satisfactory completion of all placements is a pre-requisite for admission to examinations. Students whose performance in a subject is unsatisfactory may have to gain more experience in the subject or defer sitting a formal or informal assessment. Students are able to view their own Placement Records on ERWeb as soon as they are released by tutors.

Student Performance Report: a summary of the Placement Record information is produced in the form of a 'Student Performance Report' at various stages during the course:

- at the end of Stage 1;
- at the end of Stage 2;
- towards the end of Stage 3;
- for any student with a consistently poor record to be brought to the attention of the Clinical Dean.

Clinical Supervisor Reports: Colleges require Supervisors to provide termly reports on student progress; the Senior Tutor/Director of Studies refers any serious difficulties to the Clinical Dean.

College Reports: at the end of each University Term, College Personal Tutors may invite students to complete a self-assessment form and offer them an opportunity to review their term's Supervision reports and progress.

Final MB Examinations: students may ask their College Tutor for mark breakdowns – these are circulated by the Board of Examinations to College Tutorial Offices at the end of each examination period.

Stage 1

Students who fail the Stage 1 Assessment, will spend the Stage 1 SSC period on remedial work and reassessment in July; if they fail the reassessment, they will not be able to continue with the Clinical Course. Students who pass the reassessments will undertake a Stage 1 SSC project during all or part of the final year elective.

At the end of Stage 1, each student meets with the Clinical Dean/Associate Clinical Dean and Clinical Supervisor for discussion of their portfolio of cases, Performance Report and the assessment results. The student is made aware of his/her progress; problems are identified by the student, Clinical Dean or Clinical Supervisor and addressed by agreement of a personal programme of study.

Stage 2/Final MB Parts I and II

At the end of Stage 2, Clinical Supervisors distribute the Performance Report to students and discuss any concerns about progress. Students who do not satisfactorily complete one placement and students who fail the Pathology and one of the Paediatrics or Women's Health Final MB examinations will spend the Stage 3 Cambridge Specials SSC period on remedial work and resit the examinations in October. Students may be required to repeat the Stage 2 year if they fail:

- both Paediatrics and Women's Health Final MB examination at the first sitting in June;
- a resit Final MB examination in October;
- two Stage 2 placements.

Stage 3/Final MB Part III

Students who do not satisfactorily complete a placement are given the opportunity to attend remedial teaching during the Stage 3 holiday and self-directed study periods.

Stage 3 OSPE results are circulated by E-mail, a member of the Clinical Deanery team holds individual discussions with students whose performance is unsatisfactory to agree a personal programme of study.

Towards the end of Stage 3, an appointment with a Dean or senior member of the teaching staff is made for each student to discuss performance and career plans. Students with major problems will have already been identified and seen by the Clinical Dean – in exceptional circumstances, a formal warning of withdrawal of permission to sit Final MB may be issued.

Students who fail one Final MB written component may resit in July; students will be expected to repeat Stage 3 and resit **all** Final MB components if they fail:

- more than one written component at the first sitting in June;
- a clinical component (SCEE or CE) at the first sitting in June;
- a written component resit in July.

Students are permitted two attempts at each Final MB examination; if there are extenuating circumstances, the Faculty Board of Clinical Medicine may give permission for an additional attempt; a programme of revision and clinical placements to maintain their skills is organised.

Further information

THE FOLLOWING CATEGORIES ARE CONSIDERED GOOD PRACTICE TO INCLUDE:

Graduate Employability

<<with appropriate reference to the General Board's Policy outlined below>>

The General Board consider that preparation for any specific branch of employment is not the main objective of most educational courses provided by the University, and takes the view that the requirement to include specific employers' needs and opinions in programme specifications would distort the aims and objectives of many Cambridge courses. Preparation for employment in general is provided in the opportunities for acquisition of relevant transferable skills outlined in programme specifications.

Where programmes with a significant vocational or professional element are accredited by professional or statutory bodies details are given in the programme specification.

The Careers Service maintains links with relevant employers and takes into account employer needs and opinions in the services which it provides for students. Details of its services can be found at <http://www.careers.cam.ac.uk>. The Careers Service also allocates a Careers Adviser to each College, Faculty and Department to act as a point of contact.

Managing Teaching Quality and Standards

Student Support

Indicators of Quality