

1	Awarding Institution	University of Newcastle upon Tyne
2	Teaching Institution	University of Newcastle upon Tyne
3	Final Award	MBBS
4	Programme title	Medicine
5	Programme Accredited by:	General Medical Council (GMC)
6	UCAS Code	A101, A106
7	QAA Subject Benchmarking Group(s)	Medicine
8	Date of production/revision	August 2004

9 Programme Aims:

In order to produce doctors, who recognise their duty to maintain a good standard of practice and care and show respect for human life, our aim for the provision of basic medical education is:

To foster the development of a caring, knowledgeable, competent and skilful medical graduate who broadly understands health and disease of the individual, the family and society, and who is able to benefit from subsequent medical education, adapt to future developments in practice, and work within the multi-professional health care team.

In pursuit of this aim, the Board of Medical Studies seeks to make operational the commitments of the Institutional Plans of the Universities of Newcastle and Durham in meeting regional and national needs in relation to medical education by:

Providing a flexible portfolio of programmes responsive to the changing needs of the Health Service and its patients:

Admitting motivated students of high calibre with a demonstrable commitment to medicine and the provision of high quality health care:

Ensuring that the participation and contribution made by students from non-traditional backgrounds is encouraged and developed;

Engendering an educational environment conducive to the development of a reflective approach to medical practice that is patient-centred, questioning and self-critical;

Developing links and exploiting opportunities for inter-professional education in order to develop team working and engender an integrated approach to health care delivery;

Ensuring currency of provision by delivering programmes, the structure and content of which is informed by the needs of a modernized Health Service, inter-professional consensus, statutory recommendation, research and clinical audit.

Objectives

In relation to the award of the degrees MBBS, objectives are set to ensure that a medical graduate, will:

demonstrate an ability to think critically, a proficiency in clinical reasoning, an insight into research and scientific method, a resourcefulness and creativity, and an ability to cope with uncertainty;

possess an integrated core knowledge of biomedical, behavioural, population and clinical knowledge relevant to the understanding and management of problems and conditions encountered in the Foundation Programme F1 year;

possess a range of generic (transferable) skills which are those expected of all university graduates;

demonstrate competence in those core clinical, interpersonal, and practical/technical skills relevant to the commencement of the Foundation Programme F1 year and in line with the 'New Doctor' ¹;

demonstrate appropriate professional behaviours in relation to all aspects of clinical practice;

demonstrate attitudes consistent with 'Duties of a Doctor' ² as defined by the GMC in 'Good Medical Practice';

broaden their academic, individual and professional perspectives through special study.

For those choosing to step aside from their mainstream studies to intercalate one year of study, additional objectives are set to ensure that graduates:

gain an early introduction to basic research skills and method;

develop understanding of the research process through the conduct of a research project of an original nature.

For those few, highly motivated and talented medical students admitted to the combined MBBS/PhD programme, the additional objectives of the doctoral period of study are the same as those for the conventional PhD.

Graduates will;

demonstrate the creation and interpretation of new knowledge, through original research of a quality to satisfy peer review, extend the forefront of the subject, and merit publication;

demonstrate a systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of their discipline;

demonstrate a detailed understanding of applicable techniques for research and advanced academic enquiry;

be able to make informed judgements on complex issues in specialist fields, and be able to communicate their ideas and conclusions effectively;

¹ *The New Doctor*, Recommendations on General Clinical Training, GMC

² *Duties of a Doctor*, a pack of booklets, including *Good Medical Practice*, published by the GMC

be able to continue to undertake research and development at an advanced level;

have the qualities and transferable skills necessary for exercising personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional environments.

10(a) Programme Intended Learning Outcomes:

The starting point for deriving the outcomes of our MBBS programme is based upon the definition of the three essential elements of the competent and reflective practitioner³. These are:

***What** the doctor is able to do
How the doctor approaches practice
The doctor as a professional (**Who**)*

Twelve Key Domains

Twelve key domains have been identified, each related to one of the three essential elements listed above.

These are:

***What** the new doctor will be able to do?*

A graduate from the Newcastle MBBS programme will be competent in:

*clinical skills;
practical procedures;
patient investigation;
patient management;
health promotion and disease prevention;
communication;
data & information handling.*

***How** a new doctor will approach their practice?*

A graduate from the Newcastle MBBS programme will approach their practice with:

*a knowledge and understanding of basic, social and clinical sciences and their underlying principles;
an understanding and acceptance of appropriate attitudinal, ethical and legal responsibilities;
appropriate skills of decision making, clinical reasoning and judgement.*

***What** a new member of the professional health care team will bring to their practice (**Who**)*

A graduate from the Newcastle MBBS programme will:

*understand the role of the doctor in the health care team and accept the need for continuing professional development;
demonstrate appropriate personal attributes and accept individual responsibility for continuing personal development.*

Each of the twelve domains is further subdivided into appropriate and explicit **Learning Outcomes**. These are detailed at **Annex 1**.

Please note that although an articulated provision exists between the Universities of Newcastle and Durham with respect to Phase I of the MBBS Programme such that on successful completion of Phase I at the University of Durham, Queen's Campus students are eligible for

³ Learning Outcomes for the Medical Undergraduate in Scotland: A Foundation for Competent and Reflective Practitioners, Report from the Scottish Deans' Medical Curriculum Group, February, 2000

entry into Stage 3 of the MBBS Programme in Newcastle, this programme specification relates to provision at the University of Newcastle. A separate Programme Specification exists for Phase I programme at UDQC.

10(b) Programme Intended Learning Outcomes:

Teaching and Learning Methods and Strategies

Teaching and Learning Strategy

Teaching and learning strategies have been developed which are primarily student-centred, and designed to enable achievement and demonstration of the learning outcomes. Students are expected to take responsibility for their learning from the earliest stages, while teachers guide, support and facilitate the process.

The overall approach can be best described as one of guided discovery. This is an approach in which students are actively involved in the exploration of knowledge and take responsibility for mastering the content needed for understanding themselves.

Key features include the provision of:

- A motivational context for learning based upon early clinical experience and application;
- A well-structured core knowledge base, focused upon integrated, multi-disciplinary units of study;
- Clearly articulated learning outcomes;
- A student-centred approach, which encourages the adoption of a problem-oriented, self-motivating learning style, and promotes active learning through self study;
- The opportunity for interaction and the exploration of knowledge and its clinical application in small groups;
- The opportunity for choice.

To ensure a problem-first, task-based focus to learning, a case-led approach is adopted. Within the framework of each course unit, each constituent theme is introduced by an index case or clinical presentation so that the learning issues may be identified to inform the subsequent teaching/learning process. The index cases reflect the range of core clinical presentations and problems which will be encountered by graduates. The index cases lead to the underlying key concepts and mechanisms, and it is mastering these that should be the aim rather than simply the clinical entity itself.

The development of skills, both generic and professional, is an integral part of the learning framework. Skills appropriate to the stage of development, are introduced sequentially in relation to other ongoing activity.

Acquisition and development of the required personal and professional attributes that underpin relationships with patients and colleagues, and professional standards and behaviour, are fostered through the 'Personal and Professional Development' strand of the curriculum, and the experiential clinical learning in Phase II.

The overall learning process is managed and supported through the use of detailed Study Guides, and the Portfolio and Logbook, which allows students to evidence and reflect upon their experience.

Teaching and learning methods

Throughout the programme, the choice of teaching and learning method is tailored to the student's stage of development and prior experience. Specific learning experiences are differentiated according to the particular outcome to be achieved, i.e. the learning experience is set in the professional context best suited to facilitating the achievement of the desired outcome.

Most students who enter Stage 1 of the five-year programme are in a transitional phase from earlier educational experiences, and benefit from a learning environment that has clear

structure. Some teaching and learning methods are familiar to them at this stage, whereas others are not. Alternative, less familiar methods are introduced in a progressive manner as students gain experience and confidence. Through the five years of the programme, the teaching and learning strategies encourage and ultimately require the student to adopt increasing self reliance and independence in their study and learning.

The learning and teaching strategy employed for Phase I of the Accelerated MBBS programme is matched to the maturity and prior experience of the students. From the outset learning is student-centred, case-led and contextual.

'What the doctor is able to do'

The following teaching and learning methods are used to enable the student to achieve outcomes relating to **clinical skills** and **practical procedures** and clinical and professional competency in the areas of **investigation, management** and **health promotion and disease prevention**:

Laboratory practicals - to develop observational, manual proficiency and practical procedures

Clinical skills training - initially in the supportive environment of the Clinical Skills Laboratory, and subsequently in small groups in the Clinical Base Units and other clinical attachments

Small-group clinical teaching - for experiential learning in hospital and community care settings

Case presentations/discussions – opportunities to present and discuss cases in small groups to develop initially history and examination skills and subsequently to increase competency in investigation, diagnosis and management.

The following teaching and learning methods are used to enable students to achieve outcomes relating to **health promotion and disease prevention**:

Small group tutorials and seminars - provide opportunities for interaction, discussion and clarification in support of learning in selected areas

Practical learning exercises – provide opportunities to work through problems/practical exercises in groups and individually

Project work – involving working as a team, defining and solving problems

The following teaching and learning methods are used to used to enable students to achieve outcomes relating to **communication and data & information handling skills**:

Laboratory practicals - to develop data handling and interpretative skills

Supervised training sessions - to develop information skills and proficiency in the use of communications and information technology (C&IT);

Laboratory practicals - to develop data handling and interpretative skills

Video/role play/consultation skills training - to teach communication skills

Project work – working in small groups to collectively produce material for presentation in written and oral format

How the doctor approaches practice

The following teaching and learning methods are used to enable students to achieve outcomes relating to **knowledge and understanding of basic, social and clinical sciences and their underlying principles**:

Large class plenary sessions (e.g. lectures, clinical demonstrations, case presentations) used, particularly in Phase I of the five-year programme, to present index cases, to establish a learning framework for the development of understanding, to explain complex concepts, and to provide early insight into the relationship between basic and clinical science and practice and in Stage 4 to present index cases, to activate prior knowledge and to provide opportunities for clarification;

Small group tutorials and seminars - provide opportunities for interaction, discussion and clarification in support of learning in selected areas;

Small-group clinical teaching - for experiential learning in hospital and community care settings

Guided self-study, supported by the provision of targets and direction in Study Guides, to expand knowledge and understanding through active and task-based learning.

The following teaching and learning methods are used to enable students to achieve outcomes relating to **an understanding and acceptance of appropriate attitudinal, ethical and legal responsibilities**:

Video/role play/consultation skills training - to develop attitudes;

Small group tutorials and seminars - to allow discussion and debate, e.g. ethics, medico-legal aspects;

The following teaching and learning methods are used to enable students to achieve outcomes relating to **appropriate skills of decision making, clinical reasoning and judgement**:

Problem-oriented learning opportunities - to develop problem-solving, numeracy, critical reasoning and clinical decision making skills through data handling and evidence-based activities;

Laboratory practicals – to develop skills in scientific method;

Project work – working in small groups to collectively produce material for presentation in written and oral format;

Written assignments, project work and Student-Selected Components - to promote individual investigative and exploratory study;

The doctor as a professional member of the healthcare team

The following teaching and learning methods are used to enable students to achieve outcomes relating to **professional and personal development**:

Video and role play - to teach communication skills, and develop attitudes and promote reflective practice;

Small group activities - to encourage team work and involvement;

Written assignments, project work and Student-Selected Components - to provide opportunities for self expression and choice, and serve to foster the acquisition of many of the attitudinal objectives

Clinical attachments from the early contextual visits to hospitals and general practices in Phase I through to the Essential Senior Rotations of Stage 5, to provide the opportunity for integration, consolidation and application of the knowledge, skills and attitudes accumulated from all the other course components and as such provide teaching and learning experiences which enable students to achieve learning outcomes in all three strands.

10(c) Programme Intended Learning Outcomes:

Assessment Strategy and Methods

The structure, content and process of summative assessments are designed to reflect and reinforce learning outcomes and encourage transferability of learning from one Stage to the next; an 'assessment-to-standard' approach is adopted throughout.

As such written /practical examinations are integrated i.e. units/rotations are not assessed individually.

Opportunities for formative self-assessment/appraisal enable students to continually assess their own progress in attaining the specified learning outcomes for each stage.

Different modes of assessment and different assessment instruments (question type) are used to assess competency, with the choice of question type/mode being matched carefully to the outcome being assessed.

Summative Assessment

'What the doctor is able to do'

The following modes/instruments are used to assess **clinical skills, practical procedures** and clinical and professional competency in the areas of **investigation, management and health promotion and disease prevention**:

Multi-station Objective Structured Clinical/Practical Examinations (OSC/PE)
Multi-station Objective Structured Clinical Examinations (OSCE)
Observed Structured Long Examination Records (OSLER)
Structured Assessor Reports (from supervisors and other members of the clinical team)
Extended Matching Item Questions (EMI)
Data Interpretation Questions

The following modes/instruments are used to assess **communication and information and data handling skills**:

Poster and Oral Presentations
Project reports and other written assignments
Multi-station Objective Structured Clinical Examinations (OSCE)
Observed Structured Long Examination Records (OSLER)
Objective Structured Video Examinations (OSVE)

'How the doctor approaches practice'

The following modes/instruments are used to assess **knowledge and understanding of basic, social and clinical sciences and underlying principles**:

True/False statements
Short Structured Questions (open response)
Extended Matching Item Questions (EMI)
Objective Structured Video Examinations (OSVE)
Critical Appraisal Exercises
Project Reports and other written assignments

The following modes/instruments are used to assess ability to **apply knowledge, solve problems, critically evaluate evidence and test clinical reasoning**:

Data Interpretation Questions
Problem Solving Questions
Mini Cases
Project Reports and other written assignments
Poster and Oral Presentations
Structured Assessor Reports

'The doctor as a professional member of the healthcare team'

The following modes/instruments are used to assess **professional development/behaviour and personal development**:

Structured Assessor Reports
Participation in Evaluation/Audit/Appraisal activities
Compliance with Learning Agreement
(Clinical) Portfolio and Logbook
Project Reports and other written assignments

Formative Assessment/Appraisal

Students are offered a wide range of opportunities for formative assessment throughout the programme to reflect for them the breadth and depth of the curriculum, and the format of summative assessments, and they include:

*self-assessment questions in the unit Study Guides (in the electronic study guides, these self assessment questions are available in interactive form),
practice OSCEs
formative in-course appraisal of 'Professional Approach' and 'Clinical Encounter' observed OSLE –style assessments
progress in the (Clinical) Portfolio and Logbook
opportunities to prepare and present presentations in CSIM3)*

11 Programme Curriculum, Structure, and Features:

Please note that at the time of writing, two curricula exist for the A106 MBBS programme. The *new curriculum* was introduced in Stage 1 in 2001 and has rolled out into Stage 2 in 2002, Stage 3 in 2003 etc. The academic year 2004-05 will see the last cohort graduate from the final year (Stage 4 (Year 5) of the *old curriculum*.

General Design of the Curriculum

The curriculum is designed to provide students with a general medical education, suitable for all types of doctor, and to serve as the foundation for later career specialisation.

Broadly Phase I, whether studied as part of the five-year programme or as part of the four-year accelerated programme, deals with normal and abnormal structure, function and behaviour, and Phase II with clinical practice. An integrated system and topic based approach is taken with the emphasis changing in each stage as students progress through the curriculum. Students study each system/topic in Phase I and again in Phase II.

The content of the programme is organised to provide a core course, encompassing the basic knowledge, understanding, personal attributes and skills needed at the start of the Foundation Programme, and Student-Selected Components which augments the core and allows students to study in depth topics of their own choosing.

In relation to the core MBBS programme, a fully integrated approach is adopted from the outset. Each unit of study offered relates to a system of the body or topic of relevance. In order to emphasise integration and build interrelationships between the disciplines within a stage, each unit/rotation is delivered by an interdisciplinary teaching team.

The various units and rotations relating to each system/topic area of the curriculum are consolidated into eight subject strands, which run throughout the course ensuring vertical continuity between the stages. As a student progresses from one stage to the next, new information and skills are introduced that link back to the information and skills they acquired at the previous stage.

The eight Subject Strands comprise:

*Personal & Professional Development
Medicine in the Community
Clinical Sciences & Investigative Medicine
Nutrition, Metabolism & Endocrinology
Cardiovascular, Respiratory & Renal Medicine
Thought, Senses & Movement
Life Cycle
Student Selected Choice*

Core content is organized into system/topic units/rotations, and mapped onto each of seven core Subject Strands over the 5-years of the programme. Student Selected Components (SSCs) are mapped onto the eighth Subject Strand, Student Selected Choice.

Overview of the MBBS programme

Phase I of the programme establishes the essential knowledge base for medicine in a clinical context, and Phase II (3 years) provides clinical experience in a wide range of hospital and community settings across the region.

Phase I experience stresses the integrated nature of medical training and places early emphasis on the clinical aspects of the programme. In Phase I of the Accelerated MBBS Programme, the 'long' Foundation Year, provides an experience separate, but equivalent to Phase I of the standard five year programme. Learning outcomes are shared in common, but the organisation of the curriculum is distinct.

During Stage 1 of the five-year programme students receive the preparatory introduction to student selected components (SSCs), and in Stage 2 students will undertake the first SSC proper (SSC1). Given the prior experience of students taking the four-year programme this element is omitted from the Accelerated programme.

In Phase II, students will be allocated to one of four regional Clinical Base Units for Stage 3 clinical experience. At the beginning of Stage 3 those students who studied Phase I at the Queen's Campus, Stockton will have been integrated with peers from Newcastle within a Base Unit.

The Stage 3 Base Unit attachment starts with a comprehensive 15-week clinical practice introduction in which students learn the key clinical skills of history taking and examination, and gain early experience in medicine and surgery in both hospital and general practice settings.

The Foundations of Clinical Practice course is followed by a series of Essential Junior Rotations. These attachments emphasise the importance of hospital, primary care and community medicine, and address the overall theme of Health & Disease; students gain relevant experience by rotating through the various hospitals, practices and community facilities associated with their Stage 3 Base Unit.

Following the Stage 3 Base Unit Attachment, which finishes at the end of the third year, Stage 4 begins with a 12-week course in the Clinical Sciences and Investigative Medicine (CSIM3) which is delivered at the Medical School.

Stage 4 continues in January of the fourth year with 21 weeks spent studying full-time, a series of student selected components (SSC2). These SSCs are arranged in three six-week blocks (plus three weeks of assessment), with topics being chosen from a wide range of over 300 clinical and non-clinical titles. SSC2 is followed by an eight-week period of elective study. This elective period provides each student with the opportunity to study any aspect of medicine almost anywhere in the world.

For the Final year of the *old curriculum* students are attached to hospital units and general practices in Newcastle and throughout the Northern Deanery of the Northern and Yorkshire NHS Region, for periods of whole-time clinical work. The Essential Senior Rotations address the theme of Care and Management.

For the Final Year (Stage 5) of the *new curriculum*, students are again allocated to a Base Unit to undertake whole-time work in clinical and community settings. This year of study addresses the theme of Care & Management.

Following the final examination at the end of Stage 5, graduates undertake a 2-week preparatory course to ease the transition from final year student to Foundation Programme Pre-registration

House Officer. This course allows graduates to 'shadow' the House Officer whom they will be relieving.

Special features of the programme

Intercalation opportunities

The fundamental aim of basic medical education is to produce graduates who have a sound and broadly based knowledge of the principles and practice of medicine. Opportunities for gaining research experience are necessarily limited in the mainstream programme. However, it is essential for the future scientific and clinical development of the profession that it can draw on a pool of clinically qualified graduates also trained in research.

It is the practice of this Medical School to encourage some highly motivated and able medical students to step aside from their mainstream undergraduate studies to intercalate one year of additional study.

Opportunities for intercalation exist at two stages in the MBBS programme.

Following successful completion of Stage 2 (at the first attempt) if a student wishes to pursue study in depth they will be able to elect to intercalate the final year of one of the following science honours degrees available in the Faculty

Following successful completion of Stage 4 (at the first attempt) students who wish to pursue study in depth will be able to elect to intercalate a programme from the postgraduate taught programmes available in the Faculty. Students who wish to pursue a research project-based programme will be able to intercalate for a full time MPhil.

MBBS/PhD Degree

This combined degree programme is offered to one or two students undertaking the intercalated MPhil programme following completion of Stage 4 MBBS. The aims of the programme are to foster talented undergraduates who are motivated to a future in medical research and who will ultimately be among the key clinical academics of the future.

Candidates for entry to the programme are expected to have demonstrated particular aptitude in the MPhil. Transfer to the MBBS/PhD programme is based upon a rigorous assessment of the applicant's progress to date, including a full curriculum vitae with a personal statement and the student's outline of proposed research with their own aims and objectives.

On entry to the programme, students commence a three year period research and are expected to submit a doctoral thesis before resuming the mainstream medical course.

Following submission of the thesis, students commence the final year and follow the full Stage 5 MBBS programme.

Links between learning outcomes, curriculum and structure of the programme

Please refer to Annex 2

12 Criteria for Admission:**GCSEs required:**

For the standard 5-year degree programme (A106), applicants are required to have at least five GCSEs at grade C or above. If only one of Biology and Chemistry is offered at A/AS level, the other should be offered at GCSE grade A (or Dual Award Science grade A).

A-Level Subjects and Grades:

The typical offer is AAB from 18 units including two A-levels and excluding General Studies. Chemistry or Biology is required at A or AS level;

For applicants applying through the Widening Participation scheme (PARTNERS), a lower offer of BBC, together with successful completion of the 2-week assessed Summer School, is made.

Alternative entry qualifications:**For the 5-year programme:**

Access to Medicine, and Foundation for Medicine programmes: distinctions in all modules are required.

Access to Higher Education courses: modules in Biological Sciences and Chemistry are essential at Distinction level, and Quantitative Methods is desirable at Credit Level or higher.

Scottish Highers: the requirement is AAAAB at Higher Grade including Chemistry and/or Biology at grade A and Mathematics. Five passes at Standard Grade 3 or above (or Intermediate 2).

International Baccalaureate: a minimum of 35 points including at least grade 5 in all six subjects, with grade 6 in chemistry or Biology is required. Combinations including Chemistry, Biology and Mathematics at Higher Level, and three other subjects including English and Physics desirable but not essential

AVCE qualifications: only one (6 units) will be considered together with two A levels (12 units) of the AAB minimum (18 units) required.

Irish Leaving Certificate: AAAAAB at Higher Level, excluding Irish. Subjects should include chemistry and Biology, along with Physics, Mathematics and English Language to at least Ordinary Level is required.

Graduates: At least a 2(i) science-based (Hons) degree.

Overseas Students: Appropriate overseas qualifications will be considered. Achieved English Language Test results at the appropriate level, i.e. IELTS (or equivalent) with a score of at least 6.5

For the 4-year Accelerated Degree Programme (A101):

Graduates: A minimum of a 2(i) (Hons) degree in any discipline. Applicants will normally be expected to demonstrate evidence of recent academic endeavour.

Health Care Professionals: Candidates who have relevant experience gained as a health care professional within the NHS with a qualification recognised by a statutory body. Evidence of recent academic endeavour is normally required.

Admissions Policy:

The University's policy on equal opportunities and disability are adhered to.

Equal Opportunities: The University, whilst taking into account the GMC 'duties of a doctor', endeavours to ensure equality of opportunity for applicants, and aims to create conditions whereby students are treated solely on the basis of their academic achievement, ability and potential, regardless of age, religion or belief, ethnicity, gender, marital or family status, sexual orientation, or disability.

Disability: The University is committed to the principle of equal treatment of disabled persons and the proper application of the Disability Discrimination Act 1995. Selectors assess individuals on their personal and academic merits without reference to any declared disability. The GMC guidelines on Fitness to Practise are also taken into account and, therefore, in certain circumstances it may be necessary for applicants to undergo an Occupational Health Assessment before their offer of a place is confirmed.

Arrangements for non-standard entrants:

BSc transfer students: Stage 1 Biomedical science students who are in good academic standing have the opportunity to apply for transfer to Stage 1 entry of the MBBS programme.

Stage 3 entry: Direct entry to Stage 3 of the MBBS programme for Dental graduates, with Part A MFDS, wishing to pursue a career in Oral/Maxillofacial surgery.

Any Additional Requirements:

Immunisation: All successful applicants are required to have satisfactory immunisation status, particularly with regard to Hepatitis B, Polio, Heaf test/BCG, Rubella, Tetanus, Diphtheria, and Chickenpox.

CRB: Criminal Records Bureau Enhanced disclosure check.

13 Support for Students and their Learning:

The strategy for support is based upon the provision of clear and timely information, academic guidance and individual tutorial support, backed up by specialist academic and welfare services.

Induction and orientation

The five year programme commences in Stage 1 with a 3-week introductory unit: 'Molecules to Community'. During this first unit of the course students are introduced to the MBBS programme as a whole, details of Stage 1, introductions to C&IT, library and clinical skills resources, principles of 'Duties of a Doctor', personal welfare, tutorial and support services, and basic study skills. Similar sessions are provided within the first two weeks of the Accelerated MBBS Programme

Further orientation is given at key points, such as the beginning of each new Stage and at the transition between medical school and the Foundation Programme.

Study skills support

In addition to the guidance received from personal tutors, all students receive a copy of the Study Skills Handbook, and sessions on the self-management of learning are included within Phase I of the Personal and Professional Development strand.

Furthermore, the Faculty of Medical Science's Study Skills Advisor is available to provide individual help and guidance. Students may make a request to a Curriculum Officer for a referral to see the Advisor at any time, if they think that they would benefit from professional advice.

Academic support

General information on the aims, objectives, learning outcomes, organisation and content of the curriculum set out in this handbook is supplemented by the detailed guidance contained in the Stage/Phase Handbooks.

Study Guides and/or Logbooks are provided for each course unit and rotation. These indicate what should be learned, how it can be learned, and how students can recognise if they have achieved the desired goals. Study Guides and/or Logbooks provide learning outcomes, details of the programme of study, and guidance to support learning, including formative self-assessment. These are available in both paper and interactive, electronic form.

Course Directors serve as reference points for academic issues that arise in relation to individual units or rotations. The names of all Phase I & II Course Directors and Senior Medical Tutors/Group Facilitators, together with their email addresses, are given in the appropriate Study Guides.

Pastoral support

Personal tutors, drawn from across the Faculty and the Base Units, are teachers actively involved in delivering the course and are responsible for providing first-line pastoral support and academic guidance.

In Stage 1 students are allocated to a Personal Tutor who is responsible for a small number of medical tutees from Stages 1 and 2, comprising a small 'family'. This has links with the 'peer parenting' scheme run by the Newcastle Medical and Dental Students' Council (see below). Phase I tutors are usually based in the Medical School. In Phase I of the Accelerated MBBS programme students are allocated to a Personal Tutor who is distinct from their Senior Medical Tutors/Group Facilitators.

Tutors hold both group and individual meetings with their tutees. A group meeting is timetabled at the beginning of each semester. From then on it is for the tutor and tutee to decide on the timing and frequency of further meetings, whether group or individual. However, students are advised to try and see their tutor individually at least once during each semester. In order to review progress, the most obvious time for this meeting is to coincide with publication of assessment results, particularly if they have not done as well as they might (for example, attained a 'Borderline' or 'Unsatisfactory'). Tutors may suggest additional meetings as necessary, and of course a student may request a meeting with their tutor at any time.

On entry into Stage 3 each student is allocated a personal tutor in the Clinical Base Unit to which they are attached. This tutor will remain their personal tutor for the remainder of their Phase II experience

Any student may request a change of tutor if the tutor-tutee relationship breaks down or is not working properly. Students wishing to change their tutor should contact a Curriculum Officer.

Support for Special Needs

The Senior Tutor for Student Support and Guidance is available at two surgery sessions each week. A student can make an appointment to attend a surgery sessions by contacting the Medical Student Office. For particular areas of concern the student may be referred to another Curriculum Officer. Following discussion with their personal tutor or Curriculum Officer a student may be advised to contact other specialist support/welfare services offered by the University.

The Student Welfare Handbook is issued to all new students at Registration. This publication is a guide to all aspects of welfare provision and contains also basic advice on study skills. Further information is provided on the University web site: <http://www.ncl.ac.uk/student-support/welfare.htm>

Learning resources

The undergraduate MBBS programme is delivered by a partnership comprising the Universities of Newcastle and Durham and the NHS Trusts of the Northern Deanery of the Northern and Yorkshire NHS Executive. The academic and clinical facilities of the two Universities and their partner acute hospital, mental health and primary care NHS Trusts are used to support students' learning.

The overall learning resources strategy is designed to ensure that teaching and learning takes place within the contextual setting most appropriate to the students achievement and practice of the learning outcomes (i.e. experience in hospital medicine is gained in hospital, experience in primary care is gained in general practice and other community settings, etc).

In Phase I students are based principally in either the Medical School at Newcastle. In Phase II students spend the majority of their time in the various clinical settings of our NHS partners, often somewhat distant from either of the two university academic campuses.

No matter where a student is based, they have reciprocal access to the resources provided by all the partner institutions and to the Faculty of Medical Sciences' web-based managed learning environment (Learning Support Environment – LSE), which provides them with course and administrative information, subject-specific teaching and learning materials, and communication tools.

The Catherine Cookson and William Leech buildings of the Medical School, opened in 1984, provide well-equipped teaching accommodation comprising;

*8 lecture theatres (seating 100-400);
a number of smaller seminar/classrooms;
five basic science laboratories (one with computer workstations);
the Walton Library, and the Faculty of Medical Sciences Computing, comprising the Fell, Linn, Pool and Dene Cluster;
The Ridley Building, 100 yds from the Medical School, comprises 16 'state of the art' seminar rooms of various capacities;
The Anatomy & Clinical Skills Centre (ground floor, Cookson Building) provides an integrated interprofessional teaching area including dissection, clinical skills and microscopy laboratories and video facilities for communication skills teaching and practice;*

Further background information may be found on the University of Newcastle (<http://www.ncl.ac.uk/>) and Faculty web sites (<http://medical.faculty.ncl.ac.uk/>).

14 Methods for evaluating and improving the quality and standards of teaching and learning:

The Faculty is committed to the provision of high quality teaching and learning in order to produce doctors capable of contributing to the present and future health needs of the nation. In recognition of this commitment, the Board of Medical Studies aspires to promote a total quality environment in which students and the staff reflect upon their practice as part of the Learning Agreement.

Programme and teaching quality is monitored and enhanced via the following mechanisms:

*the quality of the medical degree programme is monitored by the Board of Medical meets at least once every two weeks;
student representatives are members of all key committees including the Board of Medical Studies;
staff/student meetings are held at all stages of the curriculum;
focus meetings are held where necessary
student evaluation questionnaires are used throughout the course;
the External Examiner system provides individual feedback on the quality of provision as well as on the outcomes of Stage assessments.*

The Phase Staff/Student Committees make recommendations to the Board of Medical Studies, where student opinion, along with other internal monitoring data (e.g. assessment outcomes) and the views of External Examiners informs the development of appropriate action plans for

change. These changes are reported back to the student representatives on the Staff/Student Committees. Student representatives are a key link in communication with the student body as a whole. The system depends upon informed input from the student representatives, who in turn depend on input from their colleagues; in similar fashion student representatives are expected to disseminate information back to other students in their group.

Focus groups and ad hoc working parties of students and staff are used regularly to further explore in depth specific problems or development issues, e.g. development of assessment methods. Commonly chaired by one of the Curriculum Officers or an independent facilitator, these groups report back to the Board of Medical Studies.

External examiner reports

The External Examiner reports are considered by the Board of Medical Studies and the Board's response to the comments are considered by FTLC, and then sent to the External Examiners. The External Examiners have consistently commended the standard of the programmes, the quality of the students and the level of support provided to students.

Accreditation reports

The programme was last reviewed by the General Medical Council (GMC) and the Quality Assurance Agency (QAA) in 1998. The QAA awarded the MBBS programme 24 out of 24 for its provision, concluding that each of the six aspects on which the visit was based made a full contribution to the attainment of the stated objectives.

Student evaluations

The views of the students and their evaluation of the content and teaching received are sought through their membership of the Board of Medical Studies and Curriculum Committees, together with the student course evaluation questionnaires. Annual, systematic surveys of student opinion on each module/unit of the degree programme are conducted by the Phase Co-ordinating Committees using standardised, anonymous questionnaires. The collated data from these surveys are then discussed at regular meetings of the Phase Staff/Student Committees. Membership of the Phase Staff/Student Committees includes Course Directors and a wider cross-section of student members (e.g. one student from each of the student timetable groups). In addition any other student or member of staff is free to attend.

Feedback Mechanisms

Results of the student course evaluation are considered by Phase Co-ordinating Committees, the Board of Medical Studies and where appropriate Quality Monitoring Meetings for Phase II. Recommendations for changes are made to the Board of Medical Studies where appropriate. Student representatives are asked to feedback to the students on changes that have been agreed in response to feedback received. Minutes of Staff Student Committee meetings are published on the Learning Support Environment for all students to access.

Faculty and University Review Mechanisms

All major changes to the existing programme must be approved by the GMC, FTLC and UTLC. The University operates a Degree Programme Review and Internal Subject Review to monitor the quality of the teaching provision. The Board of Medical Studies is involved in both review processes.

15 Regulation of Assessment

Pass Marks

All assessments are graded on a four-point scale: Merit, Satisfactory, Borderline, and Unsatisfactory. Students must achieve Satisfactory or Merit in order to pass an assessment.

Course Requirements

All modules are compulsory.

Students are assessed in a number of strands which reflect the domains of the curriculum (*old curriculum*: Learning Process, Knowledge, Clinical Skills, Clinical Reasoning; *new curriculum*:

What the Doctor is able to do, **How** the Doctor approaches practice; the Doctor as a professional (**Who**)). Students are required to achieve Satisfactory or Merit in each strand in order to pass the Stage. At Stages 1, 2 and 3, those students achieving a Borderline grade in one or more strands are required to attend a moderating *viva voce* examination.

Students are required to pass each Stage in order to proceed to the next.

Weighting of Stages

Only successful completion of the Final Stage (*old curriculum*: Stage 4 (Year 5), *new curriculum*: Stage 5) can lead to the award of the degree.

Old Curriculum

In order to pass the degree with Honours, students must pass the Final Qualifying Examination with Distinction **and** achieve an academic rating of at least 16 (from a possible 24) points. [Note that for direct Stage 3 entrants this threshold is 9 points.] The maximum points available at each Stage are:

Stage 1	4
Stage 2	8
Stage 3	12

New curriculum

In order to pass the degree with Honours, students must pass the Final Qualifying Examination with Distinction **and** achieve an academic rating of at least 27 (from a possible 40) points. [Note that for direct Stage 3 entrants this threshold is 18 points.] The maximum points available at each Stage are:

Stage 1	4
Stage 2	8
Stage 3	12
Stage 4	16

Common Marking Scheme

In-course assessments and the Objective Structure Long Examination Record are graded against pre-published criteria on the M, S, B, U scale.

Old Curriculum

Unseen examinations are graded against pre-published thresholds:

Data interpretation/problem solving

M = 75 or above

S = 60 – 74

B = 51 – 59

U = 50 or below

Objective Structured Clinical Examination (Stage 4 only; at Stage 3 the thresholds used for data interpretation/problem solving papers are applied to the OSCE)

M = 80 or above
 S = 60 – 79
 B = 51 – 59
 U = 50 or below

MCQ

M = 65 or above
 S = 45 – 64
 B = 36 – 44
 U = 35 or below

New Curriculum

Thresholds for unseen examinations are determined by an appropriate standards setting methodology, i.e. the modified Anghoff method for written and practical examinations or the borderline method for clinical examinations.

Role of the External Examiner

External examiners are distinguished members of the academic community and are appointed by FTLC on the recommendation of the Board of Studies.

External examiners are invited to comment on draft exam papers at all Stages; moderate examination scripts at all stages; conduct viva examinations alongside internal examiners at Stages 1, 2 and 3; observe Objective Structured Clinical Examinations; observe Student Selected Component Oral Presentations; conduct the Objective Structured Long Examination Record alongside an internal examiner; attend the Board of Examiners meetings; and report to the University of the comparability of standards.

16 Indicators of Quality and Standards:

Professional Accreditation Reports

The programme was last reviewed by the General Medical Council (GMC) in 1998. The GMC made some recommendations in respect of the provision but stated that although 'a number of areas for further consideration' were highlighted 'we would not wish to give the impression that we were other than very impressed with the provision of undergraduate education at Newcastle'.

Internal Review Reports

As yet the subject has not been subject to an Internal Subject Review, but this will occur in November 2004.

Previous QAA Reports

The QAA awarded the MBBS programme 24 out of 24 for its provision, concluding that each of the six aspects on which the visit was based made a full contribution to the attainment of the stated objectives.

This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided. The accuracy of the information contained is reviewed by the University and may be checked by the Quality Assurance Agency for Higher Education.

In addition, information relating to the course is provided in:

The University Prospectus
The Departmental Prospectus
The University and Degree Programme Regulations
The Degree Programme Handbook
QAA Subject Review Report

Annex 2: Programme Curriculum, Structure and Features

Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 1, Semester 1												
Molecules to Community	x		x			x	x	x	x	x	x	x
Nutrition, Metabolism & Endocrinology 1			x	x				x		x		x
Cardiovascular, Respiratory and Renal Medicine 1			x					x		x		x
Life Cycle 1	x		x		x	x		x	x	x	x	x
Personal and Professional Development 1	x	x				x	x	x	x	x	x	x
Medicine in Community 1					x	x	x	x	x	x	x	x

Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 1, Semester 2												
Clinical Sciences and Investigative Medicine 1		x		x				x		x		x
Nutrition, Metabolism & Endocrinology 2			x	x				x		x		x
Cardiovascular, Respiratory and Renal Medicine 2			x					x		x		x
Life Cycle 2	x		x		x	x		x	x	x	x	x
Personal & Professional Development 2	x	x				x	x	x	x	x	x	x
Medicine in Community 2					x	x	x	x	x	x	x	x

Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 2, Semester 1												
Thought, Senses and Movement	x		x		x	x		x	x	x	x	x
Personal & Professional Development 3	x	x				x	x	x	x	x	x	x
Medicine in Community 3	x				x	x	x	x	x	x	x	x
Student-Selected Component 1						x	x					

Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 2, Semester 2												
Clinical Sciences and Investigative Medicine 2	x		x	x	x	x		x	x	x		x
Life Cycle 3	x				x	x		x	x	x	x	x
Medicine in Community 4					x	x	x	x	x	x	x	x
Personal & Professional Development 4	x	x		x		x	x	x	x	x	x	x

Four Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Phase 1 Accelerated Programme												
Case-based learning	x	x	x	x	x	x		x	x	x	x	
In-course assignment						x	x			x	x	x
Medicine in Community					x	x	x	x	x	x	x	
Personal & Professional Development	x	x		x	x	x	x	x	x	x	x	

Four and Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 3												
Foundations of Clinical Practice	x	x	x	x	x	x	x	x	x	x	x	x
General Practice	x	x	x	x	x	x	x	x	x	x	x	x
Chronic Illness, Disability and Rehabilitation	x	x	x	x	x	x	x	x	x	x	x	x
Reproductive and Children's Health	x	x	x	x	x	x	x	x	x	x	x	x
Mental Health	x		x	x	x	x	x	x	x	x	x	x
Infectious Diseases	x	x	x	x	x	x	x	x	x	x	x	x
Public Health					x	x	x	x	x	x	x	x

Four and Five Year Programme	What the doctor is able to do							How the doctor approaches practice			The doctor as a professional member of the healthcare team	
	Clinical skills	Practical procedures	Patient investigation	Patient management	Health promotion & disease prevention	Communication	Information and data handling skills	Knowledge and understanding of basic, social & clinical sciences	Appropriate attitudinal, ethical & legal responsibilities	Decision making, clinical reasoning & judgement	Professional development	Personal development
Stage 4												
Clinical Sciences and Investigative Medicine 3 - IDHD	x	x	x			x	x	x	x	x	x	x
Clinical Sciences and Investigative Medicine 3 - CPT				x		x	x	x		x	x	x
Clinical Sciences and Investigative Medicine 3 - IPPD	x		x			x			x		x	x
Student Selected Components 2						x	x		x	x	x	x
Student Electives										x	x	x

Stage 4, Year 5 (old curriculum)

Essential Senior Rotation	Learning Process	Knowledge	Clinical Skills	Clinical Reasoning
Surgery	x	x	x	x
Medicine	x	x	x	x
Child Health	x	x	x	x
Obstetrics & Gynaecology	x	x	x	x
Mental Health	x	x	x	x
General Practice	x	x	x	x
Special Medicine	x	x	x	x