

FACULTY OF MEDICINE

MB ChB Programme

Programme B: Applicable to students admitted in 2000-01 and before

Students must complete the two pre-clinical and three clinical years of study. On completion of the Pre-clinical Programme, students may apply for admission to the one-year Intercalated Degree Programme in Medical Sciences.

Course List

Pre-clinical Courses

<i>Medical Year</i>	<i>Code</i>	<i>Course Title</i>	<i>Length of Study</i>
First	GEE 298Z/299Z	Behavioural and Social Sciences (Required General Education course for Medical students)	1 year
First to Fourth		Family follow-up project (Part of Behavioural and Social Sciences course)	3 years
First and Second	MED 1010/2010	Anatomy	2 years
	MED 1110/2110	Physiology	2 years
	MED 1310/2310	Biochemistry	2 years
Second	MED 2210	Pharmacology	1 year

Clinical Courses

<i>Medical Year</i>	<i>Code</i>	<i>Course Title</i>	<i>Length of Study</i>
Third	MED 3010	Introductory Clinical Course	10 weeks
	MED 3110 and 3210	Junior Medical Clerkship and Junior Surgical Clerkship	8 months
	MED 3310	Medicine Core Lectures and Therapeutics/ Clinical Pharmacology Lectures	8 months
	MED 3410	Anatomical and Cellular Pathology	1 year
	MED 3510	Microbiology	1 year
	MED 3610	Chemical Pathology	1 year
Fourth	MED 4010	Community and Family Medicine	1 year
	MED 4110	Obstetrics and Gynaecology	
	MED 4210	Paediatrics	
	MED 4310	Psychiatry	

	MED 4410	Elective		6 weeks
	MED 4510	Combined Clinical Examination		
Fifth	MED 5110 and 5210	Senior Medical Clerkship and Senior Surgical Clerkship	}	1 year

Course Description

Pre-clinical Courses

(Medical Years 1 and 2)

MED1010/2010

Anatomy

During the first year, human gross anatomy will be studied by lectures and dissection and this will be correlated with surface and radiological anatomy as appropriate. In addition, genetics, cell biology and microscopic anatomy of tissues and organ systems will be taught in the first year together with an integrated course in human developmental anatomy.

In the second year, the main subjects studied will be the topographical anatomy of the head and neck and neuroanatomy. The course in developmental anatomy begun in the first year will also be completed.

The teaching will be by means of lectures, demonstrations, tutorials and practical classes, and an emphasis will be placed upon the functional and clinical relevance of anatomical knowledge.

MED 1110/2110

Physiology

The topics taught during the first year include general physiology, cardiovascular system, respiratory system and the kidneys. Teaching during the second year covers nutrition, physiology of the gastrointestinal tract, endocrine system including reproduction, neurophysiology and integrated topics. It is an important teaching aim of the physiology course to lay the foundation for a good understanding of the pathophysiology of diseases. Physiology will be taught in lectures, practical classes and tutorials with a strong emphasis on small group teaching.

MED 1310/2310

Biochemistry

This course is designed to acquaint students with the biochemistry necessary for an understanding of the molecular basis of modern medicine. Topics taught during the first year include the thermodynamics of life processes, acid-base concepts, protein purification and structure, membrane structure and function, enzymes, oxidative phosphorylation, carbohydrate, lipid and nitrogen metabolism and basic aspects of molecular biology. More specialized topics covered in the second year include cell regulation, nutrition, neurochemistry, immunology, hormone action, cancer and development, genetic diseases and biotechnology. The application of biochemistry to the analysis of health-related problems is emphasized. Lectures are supplemented by practical classes, tutorials and audio-visual materials.

MED 2210

Pharmacology

The overall aim of this course is to provide the scientific basis for the clinical use of drugs. Pharmacology will be taught in the second medical year, building on knowledge gained in the first year courses. The pharmacology course will cover the following: Basic mechanisms of drug action with particular emphasis on drug-receptor interactions and interference with neurochemical transmission; the absorption, distribution and excretion of drugs and factors

affecting dosage and duration of effect; actions of drugs on the various body systems, for example the brain (anti-depressants, analgesics) and the kidney (diuretics); the toxic properties of drugs; the selective killing of parasites and cancer cells by drugs (chemotherapy); interactions between drugs; the development of new drugs. In the latter part of this course there will be increasing participation in the interdisciplinary clinical presentations as preparation for the course of Clinical Pharmacology which will follow.

GEE298Z/299Z

Behavioural and Social Sciences

An understanding of why people behave in the way they do is central to the delivery of effective health care services. The goal of this course is, therefore, to introduce students to some of those aspects of human behaviour and human society. Mind and body are seen as interrelated, rather than as separate entities. The same interrelationship is seen between the individual person and the various groups of people who make up society. Statistics will also be introduced as a means of helping solve numerical aspects of problems the students will come across involving individuals and groups of people.

Throughout this course, equal emphasis will be placed on didactic lectures, integrated teaching, tutorials and seminars.

A family follow-up project which lasts three years will be introduced during the course. It provides a unique opportunity for students to observe the growth and development of a child from birth to three years of age in a normal family environment. The report will be assessed as part of the Third Professional Examination.

Clinical Courses

The three clinical years of study will have classes held at the teaching hospital in Shatin in the various clinical departments. Each academic year is of about twelve months' duration from July to June. Further Professional Examinations will be held during the clinical years.

(Medical Year 3)

MED 3010

Introductory Clinical Course

This course will concentrate on introducing the students to clinical methods and acquiring the techniques of clinical examination. This period will also enable the students to grasp the approach to different clinical problems and to see how history taking and examinations can help evaluate and solve them.

MED 3110 and 3210

Junior Medical Clerkship and Junior Surgical Clerkship

During this time students will be allocated to medical and surgical wards and will be taught to take histories and examine patients on a daily basis and subsequently to present their findings to their colleagues and their clinical teachers. The teaching of Orthopaedics and Traumatology also starts in Junior Surgical Clerkship. Clinical Pharmacology lectures, seminars and ward teaching (see also Medical Year 5) take place weekly during this period with the aim of applying the science of pharmacology to the treatment of patients.

MED 3310

Medicine Core Lectures and Therapeutics/Clinical Pharmacology Lectures

These lectures will be given by staff members of the Departments of Medicine and

Therapeutics, Clinical Oncology and staff from other clinical departments.

The lectures will be basic and introductory in nature and scheduled, wherever possible, to be on the same topics as the concomitant Pathology course provided by the Departments of Chemical Pathology, Microbiology, and Anatomical and Cellular Pathology. Approximately 30 lectures will be held in the year. The Therapeutics/Clinical Pharmacology course comprises a further 25-30 lectures.

MED3410

Anatomical and Cellular Pathology

(a) General Pathology

This course introduces the pathological basis of disease in man, and is based upon pre-clinical studies in anatomy, biochemistry, pharmacology and physiology. It deals with the basic principles and mechanisms of tissue and bodily reactions to injury and the morphological and functional expression of these reactions. This course includes studies in histopathology, haematology and autopsies. There will be lectures, tutorials, laboratory sessions, post-mortem demonstrations and clinico-pathological conferences. Apart from the core curriculum, there are elective courses in post-mortem techniques, electron microscopy, cancer diagnosis and molecular genetics.

(b) Systemic Pathology

This is a continuation of the course in General Pathology. It is designed to provide a survey of diseases based upon the functional disorders of body systems. Emphasis will be given to correlation of pathological changes with clinical signs and symptoms. There will be lectures, laboratory sessions, tutorials, post-mortem demonstrations and clinico-pathological conferences.

MED 3510

Microbiology

This course is designed as an introduction to the microbial diseases, their pathogenesis, natural history, diagnosis and management. The core course is divided into two parts. The first deals with basic and systematic microbiology and covers the morphology, physiology and life history of bacteria, viruses, fungi and parasites. This section also deals with the principles of immunology, epidemiology, pathogenesis and antimicrobial therapy. The second part of this course considers the infectious diseases caused by microbial agents, and deals with their epidemiology and clinical presentation, and laboratory aspects of diagnosis, management and therapy. Elective topics dealing with recent developments of microbiology and infectious diseases are included.

Teaching of this core curriculum includes lectures, laboratory demonstrations, practicals and tutorials, together with clinical presentations by members of other departments, while teaching of electives includes seminars and tutorial discussions. This course emphasizes the clinical aspects of microbiology and the use of the laboratory services for optimum patient care.

MED 3610

Chemical Pathology

This course is designed to teach the pathophysiological basis of disease and associated biochemical changes. This course brings together knowledge from pre-clinical studies in anatomy, physiology and biochemistry to explain the principles of pathological laboratory investigation and the interpretation of laboratory results. It also describes how symptoms and signs can be correlated to the pathophysiology. During the latter part of this course,

emphasis will be placed on how pathological laboratory investigation can help in the diagnosis and management of patients. This course includes lectures, laboratory sessions, tutorials and case discussions.

(Medical Year 4)

Students will rotate among attachments to four Clinical Departments as follows, and also undertake an elective course.

MED4010

Community and Family Medicine

This course provides ten weeks of integrated teaching in Community Medicine (i.e. Public Health and Occupational Medicine) and in Family Medicine. In Community Medicine, there will be tutorials, seminars, site-visits and project work in epidemiology, medical informatics, public health, occupational medicine, environmental medicine and communicable disease, relevant to modern medical practice. These sessions, are taught by the Department of Community and Family Medicine with contributions from the Department of Health.

In Family Medicine, there are lectures/seminars/tutorials covering the process and contents of Family Medicine. The high prevalent health problems in the community including skills in management will also be covered by lectures, seminars, tutorials or self directed learning packages. The range of teaching methods also include video-taping, clinical interviews and clinical role-playing. There are clinical attachments to the University Family Medicine Clinic and Teaching Unit (in the Lek Yuen Health Centre) and also to Family Medicine clinics run by private practitioners and institutions both public and private. Continuity of care and communication skills are emphasized in the context of the family and the community, together with the principles of the assessment and management of problems in unreferral patients.

The students are assessed on the theory and practice of Community Medicine and Family Medicine in clinical contexts.

MED 4110

Obstetrics and Gynaecology

This is a ten-week module of clinical clerkship in obstetrics and gynaecology. All ten weeks are devoted to teaching in the clinical settings of clinics, wards, operating theatres, and labour wards. An integrated short course in perinatology and some multidisciplinary topics will also be included. Two weeks of the ten-week module are spent on attachment to either the Obstetrics and Gynaecology Unit at Caritas Medical Centre or at Princess Margaret Hospital, or at Tuen Mun Hospital.

MED 4210

Paediatrics

During the ten-week Paediatric Module in the fourth year, students will clerk paediatric patients on the wards and in outpatient clinics, and receive bedside teaching, tutorials and selected lectures. Students will spend most of their time at the Prince of Wales Hospital but will also visit the paediatric wards of Caritas Medical Centre, Kwong Wah Hospital, United Christian Hospital and Princess Margaret Hospital. Visits are also undertaken to the Lek Yuen Maternal and Child Health Centre and the Pamela Youde Child Assessment Centre. During the Community and Family Medicine Module students will visit Pinehill Village School for the mentally handicapped.

The aim of this course is to provide the undergraduate students with a broad overview of paediatric medicine. There is a focus on common paediatric problems in Hong Kong but it is intended that students will gain insight into other important child health issues within an

Asian and global context.

MED4310

Psychiatry

This clinical course aims at teaching the psychiatric approach to medicine and contributing to the understanding of health and disease in terms of total functioning of individual patients. The emphasis therefore will be on the inter-relationship of the physical, psychological and social aspects of medical practice.

Throughout the clerkship, students will be taught on basic psychiatric skills essential in medical practice and principles of diagnosis, management and prevention of common psychiatric disorders. The teaching consists of clinical instruction at inpatient units, outpatient clinic, daycare centre, casualty department, as well as case conference and liaison psychiatric meetings.

MED 4410

Elective

Under the guidance of and with the approval of the Coordinator of Clinical Electives, each student will arrange an attachment to a unit of the student's choice either in Hong Kong or in another country, in order to broaden the student's medical horizons.

MED 4510

Combined Clinical Examination

At the end of Medical Year 4, students will have to pass a Combined Clinical Examination (MED4510) and an Integrated Paper (Written Paper), which constitute Part I of the Third Professional Examination.

(Medical Year 5)

MED 5110 and 5210

Senior Medical Clerkship and Senior Surgical Clerkship

Starting 2000-01, Medical Year 5 students will also attend a Professional Enhancement Module in addition to rotation through the medical and surgical modules offered by various clinical departments.

In Clinical Oncology, students will become familiar with the symptoms and physical signs produced by malignant diseases, and their psycho-social impact. They will see all aspects of the non-surgical management of cancer, especially radiation therapy and chemotherapy, and multi-disciplinary management. They will be taught the principles of palliative medicine. The principles of prevention, screening, diagnosis, staging, follow-up, communication, health education and resource utilization as applied to cancer would be reviewed.

In Clinical Pharmacology, the series of seminars, lectures and teaching ward rounds which have earlier been provided during Medical Year 3 as part of the Junior Medical Clerkship to show the application of the basic principles of Pharmacology to the treatment of patients, and during Medical Year 4 to discuss the application of drug treatment to the specialties studied during that year, will be continued. The emphasis in Medical Year 5 is on the practical aspects of therapeutics and the medical management of disease with a further course of 25-30 lectures.

The Diagnostic Radiology and Organ Imaging Department will familiarize students with the practicalities of the available investigations. Students will be given the opportunity to apply and extend their clinical diagnostic abilities to image diagnosis, and to appreciate the importance of intelligent requesting in the overall management of patients.

In Orthopaedics and Traumatology, students will be introduced to problems related to bone and joint diseases, with the emphasis on the diagnosis and basic principles of management of common orthopaedic conditions, including common injuries and fractures, bone and joint

infections, bone metabolic diseases, rheumatological conditions and tumours, as well as rehabilitation and sports medicine.

In the Anaesthesia and Intensive Care Module, final year medical students are taught those skills required of a first year house officer to manage surgical patients perioperatively as well as caring for the critically ill. The Anaesthesia component places emphasis on preoperative assessment and preparation, the management of postoperative pain and the care of the unconscious patient, especially managing the airway and oxygenation. Safe practice regarding administration of local anaesthetics, blood products and intravenous drugs is also emphasized. In the Intensive Care component, students are introduced to the pathophysiology of organ failure, the principles of intensive monitoring and methods of organ support. Emphasis is placed on conditions unique to the intensive care unit such as severe sepsis and multi-organ failure. In addition, all students are taught, and expected to be proficient in, basic resuscitation skills.

During this time students will be attached to the medical and surgical wards and also to the outpatient clinics. They will assist the House Officers in the care of the patients under supervision. During the year, students will also be rotated through various associated medical and surgical disciplines including Geriatrics, Otorhinolaryngology and Ophthalmology.

A rotation in Ophthalmology will introduce students to the basic clinical diagnostic and treatment skills. Participation in the outpatient eye clinic, operating theatre, accident and emergency service and tutorials are organized to emphasize the acquisition of a foundation of skill and core knowledge on common eye diseases and injuries.

At the end of the teaching modules, students will attend a 4-week Pre-internship Training Block during which they will be trained, in a structured manner, to be more competent in their professional knowledge and clinical procedures.

Study Scheme

1. Pre-clinical Programme

The Pre-clinical Programme extends over two academic years. Each academic year is of about 33 weeks in duration and divided into two terms. The curriculum will be integrated as far as possible between subjects and the teaching will be by means of lectures, laboratory classes and tutorials. Assessment of individual subjects will be made periodically throughout the course. Towards the end of the first medical year, a Faculty Examination will be held. The First Professional Examination will be held at the end of the second medical year and will include the four main subjects, namely, Anatomy, Physiology, Pharmacology and Biochemistry.

By the end of the second medical year, students shall have fulfilled the requirements on General Education (except Senior Seminar) and Physical Education.

2. Clinical Programme

During the three years of the Clinical Programme, classes will be held at the teaching hospital in Shatin in the various clinical departments. Each academic year is of about twelve months in duration from July to June of the following year.

In the third medical year, students shall take in the first three months General Pathology and the Introductory Clinical Course, to be followed by the Junior Medical Clerkship, Junior Surgical Clerkship, and Systemic Pathology. The latter is divided into Anatomical and Cellular Pathology, Microbiology and Chemical Pathology. By the end of the year, they shall sit for the Second Professional Examination in the three Pathology subjects.

In the fourth medical year, students will rotate among attachments to four Clinical Departments, namely, Community and Family Medicine, Obstetrics and

Gynaecology, Paediatrics and Psychiatry. By the end of the year, they shall sit for Part I of the Third Professional Examination in these four subjects and then take the elective course.

In the fifth medical year, students will be attached to the medical and surgical wards and also to the outpatient clinics. They will assist the House Officers in the care of the patients under supervision. At the beginning of the year, students attend the Professional Enhancement Module, followed by rotations through various associated medical and surgical disciplines during the year. At the end of the modules, they have to sit for Part II of the Third Professional Examination in Medicine and Surgery. After the examinations, all Year 5 students will have to satisfactorily complete a six-week Pre-internship Training Block at the teaching hospital before graduation.

Medical students are required to pass both the Professional Examinations and periodic assessment of individual subjects, modules and Pre-internship for admission to the Bachelor Degrees. Graduates in Medicine are required to serve one-year's internship at a recognized hospital. After satisfactory completion of internship, graduates will be qualified to apply for registration as a registered medical practitioner.

3. *Faculty Language Requirement*

A. **Applicable to students admitted in 2000-01 and thereafter only**

English

MB ChB Programme students with Grade "E" in "Use of English" of HKALE* (AS Level) are required to complete one of the following courses in their first year of attendance:

ELT 1107 English Improvement Strategies for Listening and Speaking

ELT 1108 English Improvement Strategies for Reading and Writing

Chinese

MB ChB Programme students with Grade "E" in "Chinese Language and Culture" of HKALE* (AS Level) are required to complete CHI 1410 Chinese for Faculty of Medicine in their first year of attendance.

B. **Applicable to students admitted in 1999-2000**

English

MB ChB Programme students with Grade "E" in "Use of English" of HKALE* (AS Level) are required to complete one of the following courses in their first year of attendance:

ELT 1107 English Improvement Strategies for Listening and Speaking

ELT 1108 English Improvement Strategies for Reading and Writing

* *Only applicable to students admitted on the strength of HKALE results. The HKALE results to be deemed necessary for the Faculty language requirement must be obtained in that particular sitting of HKALE which the University has used to assess the admission qualification of the student concerned.*