

FACULTY OF MEDICINE

MB ChB Programme

Programme A: Applicable to students admitted in 2001-02 and thereafter

Following a major review of the medical curriculum in 1999-2000, the Faculty of Medicine has endorsed an integrated, system-based medical curriculum for implementation year by year starting Medical Year One in 2001-02.

Course List

<i>Code</i>	<i>Course Title</i>	<i>Length of Study</i>
Medical Year One		
GEE 293Z	Health and Society (Required General Education course for Medical students)	1st Term
MED 1293	Health and Society	2nd Term
MED 1100	Integrated Medical Sciences	2 Terms
MED 1200	Skills Modules	2 Terms
SSM 1000	Selected Study Modules (SSM) A) SSM 1001 - 1100 Human Structure SSM B) SSM 1101 - 1999 Topical SSM	2 Terms
Medical Year Two		
MED 2293	Health and Society	2nd Term
MED 2100	Integrated Medical Sciences	2 Terms
MED 2200	Skills Modules	2 Terms
SSM 2000	Selected Study Modules (SSM) A) SSM 2001 - 2300 Healthcare Database Analysis B) SSM 2301 - 2600 2-Day Journal Paper Analysis C) SSM 2601 - 2999 5-Day Journal Paper Analysis	2 Terms
Medical Year Three		
MED 3293	Health and Society	Year
MED 3100	Integrated Medical Sciences	Year
MED 3200	Skills Modules	Year
SSM 3000	Selected Study Modules (SSM) A) SSM 3001 Medical Research	8 weeks
MED 3110	Junior Medical Clerkship	8 months
MED 3210	Junior Surgical Clerkship	8 months
MED 3510	Combined Clinical Examination	

Course Description

Medical Year One

GEE 293Z/MED 1293

Health and Society

This course enables students to understand some of the broader concepts of health, disease and disease prevention. The objectives include: 1) to understand essential public health principles and practices; 2) to be familiar with various modes of health care delivery and financing; 3) to appreciate the importance of evidence-based health care; 4) to regard patients in their holistic setting; as members of a family and a community; 5) to establish caring attitudes; and 6) to value the importance of medical ethics and the need for clinicians to meet high ethical standards.

MED 1100

Integrated Medical Sciences

In Medical Year One the Integrated Medical Sciences course includes six major areas of study.

The *Cardiovascular-Respiratory* study enables students to acquire basic knowledge in cardiovascular histology, electrical activity of the heart, electrocardiogram, haemodynamics, regulation of cardiac output and arterial blood pressure, endothelial control, capillary exchange and circulations in special organ systems.

The *Foundation Studies* is an integrated course covering the structural, physiological and molecular basis of cell and tissue functions in the human body. This course intends to provide a solid foundation upon which the students can embark onto the system-based and more advanced areas of their medical education.

The *Gastroenterology and Nutrition* study is to acquire basic principles and concepts of gastrointestinal physiology and to understand the pathophysiological basis of gastrointestinal diseases. The histology of the gastrointestinal tract is also studied in relationship to functions.

The *Homeostasis* study mainly focuses on regulation of body fluid volumes, osmolarity, electrolytes, and acid-base balance by the kidney. The concept of homeostasis is introduced. The study of how body metabolism is integrated under different physiological states to maintain energy supply to cells is also covered.

The *Human Structure* study provides students with a working knowledge and terminology of human body parts. This serves as a basis for: 1) understanding the organization and function of the body systems, 2) clinical examination and execution of procedures commonly encountered in general practice, and 3) acquiring a set of professional vocabulary to be used in communicating with fellow professionals and the layperson.

The *Musculo-skeletal* study introduces the students to the biomedical sciences related to the musculoskeletal system and the scope of clinical problems related to injury or dysfunction of the musculoskeletal system. Students are asked to think critically and thoroughly about the composition, structure and functions of the musculoskeletal tissues, organs and their organizations.

MED 1200

Skills Modules

The skills course focuses on clinical methods, communication skills and life-long learning skills. The objective of this course is to develop the students to become competent doctors with appropriate knowledge, skills and attitudes to meet the challenges of our changing health care needs.

During the *Clinical Methods* course, students learn how to solve a clinical problem using a hypothesis testing approach. It teaches students how to pose questions, perform physical examination and clinical procedures to reach a diagnosis and make a clinical decision,

based on evidence and patient's preference. Clinical examples are used to demonstrate the clinical relevance of structures and functions of various systems and their inter-dependency to maintain a healthy functional state. Students also visit different clinical departments to appreciate the multidisciplinary and interdependent nature of disease management, ranging from health promotion, prevention, and treatment to rehabilitation. Students will be taught initially in the Clinical Skills Learning Centre (CSLC) using manikins and simulated patients, followed by practice in real life situations. Throughout the course, the CSLC remains a focal point where clinical skills will be consolidated under guided teaching and continuous assessment.

The component for *Communication Skills* is designed for students to learn and practise basic communication and presentation skills in four workshops: non-verbal communication, questioning, active listening, responding and public speaking. The course uses a smaller group format with videotaped role-play interviews, with observation and constructive feedback by tutors and classmates as the instructional format.

The section for *Life-long Learning Skills* is designed for students to first acquire an internationally recognized standard of competency in information technology literacy. Upon completion, students are introduced to the techniques and technologies that clinicians use in the practice of evidenced based medicine (i.e. *assess, ask, acquire, appraise, and apply* clinical evidence to patient care). In the first year students are required to learn how to phrase a clinical question (so that a clinical answer can be found), where to locate relevant information (so that the most appropriate medical information databases are used for different clinical queries), and how to compose effective search strategies for a variety of medical information databases (so that available evidence will be successfully located).

SSM 1000

Selected Study Modules

The Selected Study Modules (SSM) is compulsory and takes up 30% of the whole medical curriculum. SSM goes beyond the limits of the core teaching and allows students to study in depth in areas of interest of their selection and aims at cultivating insights into scientific methods and encouraging self-directed study. In the first year, SSM includes selections from three different SSM sub-modules: University General Education courses, *Human Structure* and critical review *Topical SSM*.

Medical Year Two

MED 2293

Health and Society

The *Family Follow-up Project* provides a unique opportunity for students to observe the growth of a child from birth to three years of age in a normal family environment rather than in a hospital setting. At the end of the project, students will be able to appreciate the influences of the socio-economic background of the family, the health beliefs and practices, and social support on childcare and family adjustment. This project also provides a unique opportunity for students to learn the techniques of interviewing and the development of long-term relationships with a client family.

MED 2100

Integrated Medical Sciences

In Medical Year Two the Integrated Medical Sciences course includes eight major areas of study.

The Cardiovascular-Respiratory System Panel offers two modules of studies in the second year. The first is on *Respiratory Physiology and Histology*, which consists of basic knowledge that leads on to the other, an introduction to *Respiratory Medicine and Therapeutics*.

The *Gastroenterology and Nutrition* study provides students with the knowledge of nutrition in health promotion, disease prevention and the treatment of common gastrointestinal diseases. During this period, students will also learn the pharmacology of drugs acting on the liver and the gastrointestinal tract.

The *Haematology, Infection and Immunity* study delivers two main consecutive modules of teaching in the second and third years of the curriculum. Contents of second year teaching include basic haematology, basic immunology, and general microbiology including bacteriology, mycology, parasitology, virology and antimicrobials.

The *Homeostasis* study concentrates on the role of the endocrine system in maintaining a stable internal environment within the human body. Basic principles of endocrine control and functions of hormones from major endocrine glands are introduced, and these serve to form the basis for understanding the pathophysiology and therapeutic treatment of endocrine disorders.

The *Human Structure* study provides students with a working knowledge and terminology of human body parts. This serves as a basis for: 1) understanding the organization and function of the body systems; 2) clinical examination and execution of procedures commonly encountered in general practice; and 3) acquiring a set of professional vocabulary to be used in communicating with fellow professionals and the layperson.

The *Mechanisms of Disease and Therapeutic Approaches* study focuses on the understanding of mechanisms underlying the development and progression of disease, which discusses the logical and effective administration of therapeutic interventions or strategies. The course covers: 1) the molecular basis of disease; 2) pathological processes in tissues; 3) general principles of neoplasia; 4) pathology of injury (forensic medicine); and 5) pharmacology and therapeutics.

The *Musculo-skeletal* study introduces the students to the biomedical sciences related to the musculoskeletal system and the scope of clinical problems related to injury or dysfunction of the musculoskeletal system. Students are asked to think critically and thoroughly about the composition, structure and functions of the musculoskeletal tissues, organs and their organizations.

The *Neuroscience* study provides a framework on structure and function of central and peripheral nervous systems, and on clinical diagnosis and treatment of diseases related to the human nervous system. The second-year teaching focuses on the basic function and organization of the nervous tissues and their clinical relevance in pathological states.

MED 2200

Skills Modules

The skills course focuses on clinical methods, communication skills and life-long learning skills. The objective of this course is to develop the students to become competent doctors with appropriate knowledge, skills and attitudes to meet the challenges of our changing health care needs.

During the *Clinical Methods* course, students learn how to solve a clinical problem using a hypothesis testing approach. It teaches students how to pose questions, perform physical examination and clinical procedures to reach a diagnosis and make a clinical decision, based on evidence and patient's preference. Clinical examples are used to demonstrate the clinical relevance of structures and functions of various systems and their inter-dependency to maintain a healthy functional state. Students also visit different clinical departments to appreciate the multidisciplinary and interdependent nature of disease management, ranging from health promotion, prevention, treatment to rehabilitation. Students will be taught initially in the Clinical Skills Learning Centre (CSLC) using manikins and simulated patients, followed by practice in real life situations. Throughout the course, the CSLC remains a focal point where clinical skills will be consolidated under guided teaching and continuous assessment.

The component for *Communication Skills* focuses on understanding the patient's perspective and the patient-doctor relationship. Students will learn to discover why patients have come to consult their doctor and what their agenda, i.e. concerns and expectations, are. Students will learn how to develop rapport with the patient by considering the context and the impact of the illness on his/her life, family and work. A medium-sized group format with videotaped role-play interviews, with observation and constructive feedback by tutors and classmates, will be used. Students will also get an opportunity to be attached to the hospital to interview newly admitted patients and report their experience in small groups.

The *Life-long Learning Skills* in year two continues with developing the students' skills for the practice of evidenced based medicine (i.e. the ability to *assess, ask, acquire, appraise, and apply* clinical evidence to patient care). Students are required to learn and apply the rules of evidence for each of four major types of clinical investigations: 1) therapy/prevention; 2) harm/causation; 3) prognosis; and 4) diagnosis. Topical coverage is coordinated with the other two skills panels.

SSM 2000

Selected Study Modules

In the second year there are three different categories of *Selected Study Modules*, namely university general education, computer-aided database analysis project (First Term, 52 protected hours) and journal paper reviews (Second Term, 112 protected hours). In groups of six and guided by teachers, students will conduct an analysis of a healthcare or medical related database. The project enables them to learn and apply their analytical as well as statistical skills. In the critical review of journal papers, students will undertake four modules, which allows them to learn and practise the basic principles of critical analysis of published data and evidence-based approach to medicine and health information.

Medical Year Three

MED 3293

Health and Society (PHES3)

This is an interdisciplinary course which examines the broad concepts of health and society with particular reference to the society of Hong Kong. Discussion topics include learning and memory, personality, family dynamics, behavioural determinants of health, hospitalization, death and bereavement, patient compliance and the social welfare system in Hong Kong. Students will be guided to gain insight into patients as an individual, a family member and a community member. Principles of medical ethics will also be discussed.

The Family Follow-up Project provides a unique opportunity for the students to observe the growth of a child from birth to three years of age in a normal family environment rather than in hospital setting. The programme's objectives are that, at the end of the programme, the students will be able to appreciate the influences of the socio-economic background of the family, the health beliefs and practices, and social support on child care and family adjustment. This project also provides a unique opportunity for students to learn about interviewing and the development of long-term relationships with a client family.

MED 3100

Integrated Medical Sciences

In Medical Year Three the Integrated Medical Sciences course includes eight major areas of study:

Cardiovascular-Respiratory is the last of a series of lectures on the Cardiovascular System. It introduces the students to cardiovascular medicine and pharmacology and forms the ground work for their clinical experience as junior clerks in the wards.

Gastroenterology and Nutrition enables students to be familiar with nutritionally related diseases commonly encountered due to nutritional deficiency or over-nutrition and to develop the attitudes and skills in nutrition advice for disease prevention.

Haematology, Infection and Immunity delivers two main consecutive modules of teaching in the second and third years of the curriculum. Contents of the year-three teaching include immune problems in transplantation, congenital or acquired immune deficiency, aging and cancers; understanding of immunotherapy, understanding of the general approach to anaemias, cytopenias/cytosis, bleeding and thrombotic disorders, and the basic concept of transfusion, working knowledge and understanding of prevention, diagnosis and management of infectious diseases caused by bacteria, viruses and parasites, understanding of how antimicrobial resistance occurs and spreads, and the understanding of the importance of judicious use of antimicrobial agents.

The teaching of Homeostasis (Renal, Endocrinology and Metabolism) is divided into ten clinical sessions, each of which is in turn divided into two parts. They are mostly lecture-based and represent integrative clinical-pathological teaching involving clinical and pre-clinical departments. The first five teaching sessions are related to endocrinology/metabolism, while the remaining five are devoted to renal medicine/urology. In some cases, clinical demonstration will be used to better illustrate the effects of diseases, and to provide more opportunities for discussing the principles of diagnosis and treatment of patients.

Mechanisms of Disease and Therapeutic Approaches provides a firm scientific base to understand the mechanisms of disease, and to relate these to sound therapeutic principles and measures. This course completes Year two teaching on the General Principles of Neoplasia, and on Pharmacology and Therapeutics and concludes with a module in Forensic Medicine.

In the third year curriculum in *Musculo-Skeletal*, common and major clinical problems in orthopaedics and traumatology are introduced with the aim to highlight their uniqueness in clinical practice. Basic principles of clinical practice in musculoskeletal problems will be emphasized with the aims to prepare the students for their clinical modules in the Years Four and Five. Integrated approaches will be highlighted throughout the teaching programme.

Neuroscience in Year Three provides students with the clinical skills to assess a patient with a neurological disorder by means of history and examination. Students will learn to adopt a multidisciplinary team approach to assessment and treatment of some neurological disorders, particularly those causing long term disabilities. The main teaching on neurological examination will take place during the Function Module. Students will be doing neurology, neurosurgery and rehabilitation for one week each.

Reproduction, Sex, Human Development and Growth (PREP3) provides a detailed knowledge of reproduction and those aspects of the early and later stages of embryonic development relevant to the reproductive system and to the management of normal and abnormal pregnancy and childbirth. Students will gain an understanding of the pathological processes which may affect reproduction, pharmacology of reproduction and the special requirements of prescribing in the young and in the elderly. The principles of genetics applied to clinical problems and the principles of the biological processes of ageing, and their relevance to the management of diseases in the elderly will be included. The course will bring an awareness of the importance of social, ethical and legal issues surrounding reproduction, development and ageing.

MED 3200**Skills Modules***Clinical Methods (PCLM3)*

Based on the learning experience in PCLM1 and PCLM2 and in collaboration with Communication Module and Clinical Module, Clinical Methods aims to further consolidate students' ability to use history taking and physical examination to gather relevant clinical information to create problem lists and differential diagnoses.

Students' skills in case presentation and discussion will be strengthened through practice and feedback in small groups and under guidance. The Clinical Skills Learning Centre (CSLC) will be used as a resource centre to clarify inconsistencies and queries relating to clinical methods which may be encountered by students during their clinical attachments in different hospitals and clinics.

Communication Skills (COSK3)

Students will learn how to apply the skills learnt in COSK 1 and COSK 2 in obtaining a relevant clinical history. Furthermore, students will be taught the following skills:

- Ability to listen and observe the verbal and nonverbal messages from the patients
- Ability to take a clinical history and look after the patient's and the doctor's agenda
- Ability to handle the feelings and emotions of the patients during history taking
- Ability to share the understanding with the patient during the process of history taking.

The Life Long Learning Skills (LLSK3)

In this third year of the medical programme, the nature of coverage in Life Long Learning Skills focuses initially on learning additional evidence-based medicine (EBM) review criteria, specifically those for critiquing published systematic reviews. Six hours of relevant instruction and workshops in critiquing relevant published systematic reviews is scheduled. Students' summative assessments are based on critiquing relevant articles via small group assignments.

Subsequently students will begin to learn the life long process of how to clinically judge if and when published clinical research findings (pertaining to therapeutic interventions, harm exposures, diagnostic tests, and/or prognostic indicators) can or should be incorporated into or considered directly relevant to the clinical care of one's patients. Seven hours of these latter EBM practice sessions will be provided during each rotation in Medicine and Surgery.

Students will be given purposefully designed EBM assignments and be required to make oral presentations to their peers and supervising clinical teachers as to if relevant research exists and if so whether the findings should meaningfully inform the clinical care of selected patients they have seen during ward rounds in Medicine and in Surgery. These presentations also provide a modality of continuous, formative assessment and are designed to develop the student's clinical decision making abilities within a clinical practice context of clinical practice that is appropriately informed by clinical research.

SSM 3000**Selected Study Modules (SSM)****SSM 3001****Medical Research**

In Medical Year three, students will have to undertake a "Medical Research SSM". After the first and second years, it is generally believed that third year students will have developed their ability to independently pursue areas of interest and research. With further guidance, students should be reasonably capable of carrying out some simple research work by themselves. The aim of the "Medical Research SSM" is to provide an experiential opportunity for students to progress in this area. Furthermore, for potential students, it may also pave the way for them to take a one-year Intercalated Degree Programme in Medical Sciences.

The “Medical Research SSM” of the third year, as compared with the first and second years SSM, will be a much longer and more in-depth project. Over a dedicated period of eight full weeks in the Medical Year three curriculum, this research-oriented project will be a single study, either in laboratory science or clinical medicine. With contributions from different teaching departments, the “Medical Research SSM” provides a multidisciplinary perspective to the programme as a whole and in addition, caters for the particular interest of individual students. Free choice of research areas will enable students to explore critically and master comprehensively, subjects and disciplines that excite their curiosity.

MED 3110/MED 3210

Junior Medical Clerkship/Junior Surgical Clerkship

Students will be allocated to medical and surgical wards in various hospitals 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. They would also learn how to manage patients with different medical or surgical problems. In the surgical rotations, they would also have the opportunity to observe and participate in operative procedures in the operating theatres.

MED 3510

Combined Clinical Examination

At the end of the year, students will be assessed on their clinical clerkships through a Combined Clinical Examination which constitutes part of their Second Professional Examination.

Study Scheme

The First Year is the foundation year. The core components, which constitute 70% of the curriculum, will be taught by means of System Panels which run through the first three years. These System Panels provide the basic professional knowledge relevant for clinical practice. Medical Year One students will be required to complete the following System Panels: Cardiovascular-respiratory (PCAR), Foundation Studies (PFOS), GI/Nutrition (PGIN), Health and Society (PHES), Homeostasis (Renal Endocrinology and Metabolism) (PHOM), Human Structure (PHUS) and Musculo-Skeletal (PMUS).

In the Second Year, students are required to complete Cardiovascular-Respiratory (PCAR), Gastroenterology and Nutrition (PGIN), Haematology, Infection and Immunity (PHAE), Health and Society (PHES), Homeostasis (Renal, Endocrinology and Metabolism) (PHOM), Human Structure (PHUS), Mechanisms of Disease and Therapeutic Approaches (PMDT), Musculo-Skeletal (PMUS) and Neuroscience (PNEU).

The Year One and Year Two curricula also have strong emphasis on skills which will be taught through the Skills Modules; namely, Clinical Methods (PCLM), Communication Skills (COSK) and Life Long Learning Skills (LLSK).

For the Selected Study Modules (SSM), which constitutes 30% of the time of the whole curriculum, Year One students are required to take one Human Structure SSM and one Topical SSM in the first year. At the end of the year, students’ oral and poster presentations for SSM assessment will be conducted in the form of a whole-day Conference Presentation.

Year Two students will have to undertake two Selected Study Modules, namely, 1) Healthcare Database Analysis and 2) Journal Paper Analysis. In the first term, students are required to do a critical review of a healthcare related database and write a short report. In the second term, they have to complete two separate projects each for the 2-Day Modules and 5-Day Modules of Journal Paper Analysis.

Year Three students will have a free choice of research areas in doing “Medical Research SSM” over a period of eight weeks.

Students are required to complete all course requirements and pass the continuous and summative assessments of the System Panels and Skills Modules. Year One students also need to take an Integrated Examination at the end of the year. They have to attain an overall pass in the First Professional Examination before promotion to Medical Year Two.

The Subject Panels of Year Two progress onto Medical Year Three, at the end of which students have to pass the Second Professional Examination before promotion to Medical Year Four.

Faculty Language Requirement

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.

* *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.*