

Recent advances in immunology closely relate the pathogenesis of rheumatological disorders to the immune system.

It is the objective of this course to give the students an overview of the immune system and some of the diseases caused by dysfunction of this system, including rheumatological disorders. This is achieved in the following aspects: (1) The organization of the immune system; (2) Cellular and humoral immunities; (3) Basic molecular mechanisms of immune responses; (4) Immune-mediated mechanisms of disease; (5) Immunodeficiency diseases; (6) Modulation of immune responses; (7) Anatomy of the synovial joint; (8) Clinical manifestations of rheumatological disorders, history taking and physical examination in rheumatological disorders; (9) Investigation of rheumatological disorders; (10) Drugs used in the treatment of rheumatological disorders; (11) Overview of some rheumatological disorders: Osteoarthritis, Rheumatoid arthritis, Gout and hyperuricemia, Systemic lupus erythematosus, Ankylosing spondylitis, Rheumatic fever; and (12) Study of clinical cases.

#### **BMS 2620 Nervous System (2,2,0) (E)**

The nervous system is responsible for perception of the external environment, an individual's behavior in it, and maintenance of the body's internal environment in readiness for this behavior. Disorders of the nervous system are responsible for a significant percentage of acute medical admissions and are also responsible for a large proportion of chronic physical disability.

It is therefore important that students should have a general knowledge of the nervous system and it is the objective of this course to achieve this. The course will be taught in the following aspects: (1) Anatomy and physiology of the nervous system; (2) Major manifestations of nervous system diseases; (3) Investigation of neurological diseases; (4) Overview of neurological diseases: Infection of the nervous system, Cerebrovascular disease, Trauma, Degenerative diseases, Diseases of nerves and muscles, Disorders of the spine and spinal cord, Intracranial mass lesions; and (5) Study of clinical cases.

#### **BMS 2630 Surgery and Emergency Medicine (4,4,0) (E)**

Surgery is a discipline of medicine that treats diseases, injuries, and deformities by manual or operative methods. The objective of this course is to provide the CM students with basic vocabulary, general knowledge, and surgical principles rather than operational technical details. Students are expected to know basic knowledge about surgery and surgical patients, how to treat minor wounds, burns, fractures and other minor injuries.

Emergency medicine is a branch of medicine that deals with evaluation and initial treatment of medical conditions caused by trauma or sudden illness. It is a relatively new discipline and may involve different branches of medicine. It is important that students have a general view of various emergency conditions commonly encountered in clinical practice, their clinical features, diagnosis, investigations and the initial emergency management. The aim of this course is to give students a basic knowledge of Emergency Medicine in particular for the following aspects: (1) Emergency service in Hong Kong; (2) Principles of Cardiopulmonary Resuscitation and life support; (3) Common emergent conditions including medical, surgical, pediatric, obstetric, gynecological and environmental; (4) Poisoning and pharmacovigilance; and (5) Trauma and common injuries.

#### **BMS 3190 Medical Statistics (2,2,0) (E)**

The course aims at furnishing medical students with statistical concepts and methodologies which are useful in medicine. The class examples are all related to medicine and hygiene.

#### **BMS 3581-2 Honours Project I & II (3,0,\*)**

The aim of the honors project is to provide students with first hand experience on scientific or scholarly research. Each student will conduct an independent research project under the supervision of a teaching staff of the School of Chinese Medicine. The topic of the project will be determined upon the discussion between the student and the supervisor in an area related to Chinese Medicine. The format of the project could be clinical

studies, epidemiological studies, laboratory-based studies and pure literature studies. During the span of the project, students are expected to learn the theoretical, methodological basis as well as the statistical data analysis of scientific research, and to develop the skills for professional thesis writing and oral presentation. Upon the completion of the project, students should be capable of searching on database and research papers, and to have possessed the ability of objective and logical experimental design and data analysis. The findings from the research project will be collected in the writing of a dissertation and presented in an open oral presentation by each student.

#### **BMSC 1005 Anatomy (3,3,0) (E)**

This course aims to introduce the fundamental knowledge of anatomy to Chinese medicine students so as to prepare them for future elaborated training in various organ-based systems. Anatomy is the study of the morphological structures of the human body. In the beginning of the course, the musculoskeletal system will be emphasized, with concurrent practical sessions in a co-requisite lab course. This will be followed by presentation of different system anatomy, including digestive, respiratory and cardiovascular, urogenital and neuronal systems. The lecture teachings will include in-class model demonstrations, and supplemented with small group discussion tutorials in a problem-based approach.

#### **BMSC 1007 Physiology (3,3,0) (E)**

In this module the students are introduced a basic knowledge of the mechanisms of human body functions. The mastering of this course would provide a foundation for other medical courses.

#### **BMSC 1008 Biomedical Sciences Lab I (1,0,3)**

The laboratory sessions cover Anatomy and Physiology. Through these practical classes, concepts taught in lectures will be reinforced and enriched by means of audio-visual aids, models, specimens, tissue sections and hand-on experiences. The students will learn anatomical, and functional aspects of human body by conducting various tests, and to apply their knowledge and techniques to perform selected biochemical and molecular biology experiments, with special emphasis on their applications in medicine.

#### **BMSC 1009 Biomedical Sciences Lab II (1,0,3)**

The laboratory sessions cover Biochemistry and Molecular Biology. Through these practical classes, concepts taught in lectures will be reinforced. In the beginning, students will be taught the basic techniques on molecular biology and biochemistry, followed by protein analysis, extraction of genomic DNA and then gene amplification and analysis using PCR. Special emphasis is on individual hands-on experiences in which the performance of students and results of the experiments will be assessed.

#### **BMSC 1015 Biochemistry and Molecular Biology (3,3,0) (E)**

This course aims to provide students with fundamental knowledge on the principles of biochemistry. In the beginning, the structures and functions of bio-macromolecules will be introduced. This is followed by mechanisms of enzymes, and the key metabolic pathways and their relevance to diseases. Basic concepts of gene expression, regulation and manipulation will be introduced to students, and they will be exposed to common techniques used by molecular biologists, with special emphasis on the applications in medicine. The knowledge will be reinforced by practical sessions in BMSC1009. Students' learning will also be enhanced by group discussions and case studies.

#### **BMSC 1025 Anatomy and Physiology (3,3,0) (E)**

In this module the students are introduced a basic knowledge on the anatomy of the human body and the mechanisms of body functions. The mastering of this course would provide a foundation for other biomedical courses.