

family practice; (3) Care for women; (4) Pediatric and adolescent care; and (5) Geriatric care, especially those with chronic illnesses.

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

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 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)**

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)**

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)**

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 2005 General Pathology (3,3,0)**

Pathology is a subject about structural changes and functional disturbances in tissues and organs of the body caused by diseases. It is a mandatory course to link between basic and clinical medical sciences. Students will be introduced to the basis of histopathology and pathophysiology, and learn the fundamental mechanisms, morphological changes, as well as physiological impacts of commonly seen diseases. General pathology that deals with common and basic pathological changes will be taught here to lay foundation for systemic pathology where individual diseases will be taught in each organ-system in Clinical Medicines. The knowledge will be re-enforced by practical sessions (BMSC 2007). The students' learning and analytical ability will be enhanced by means of case studies, and examination of gross and microscopic specimens. Problem-based learning is implemented whenever possible after the students have been equipped with the basic knowledge, and students are encouraged to address some questions by themselves analytically.

#### **BMSC 2007 Pre-clinical Sciences Lab (1,0,3)**

The laboratory sessions cover Microbiology, Pathology, and Pharmacology. Through these practices, the concepts regarding pathogenesis and manifestations taught in lectures will be demonstrated and enhanced by case studies and hand-on experiences, and some common skills in medicine and scientific research will be learnt.

#### **BMSC 2015 Clinical Sciences Lab (1,0,3)**

This laboratory course aims to provide students with a practical experience in pharmacology. Students will be enriched to have a better picture of the concepts acquired from the pharmacology lecture course BMSC 2017 by participation in a series of experimental sessions involving animal studies and general pharmacological lab techniques. Besides, demonstrations on fundamental medical diagnosis will also be provided in this lab course.

#### **BMSC 2016 Fundamental Diagnosis (4,4,0)**

This course aims at teaching students how to apply the knowledge of basic medical science to clinical practice. The basic techniques of history taking, doing a thorough physical examination of the body and writing out a comprehensive and precise medical record are taught. Students will learn how to make a preliminary diagnosis and list out differential diagnoses. Investigative