**BMS 2540 Digestive System and Hepatobiliary System (2.5,3,0) (E)**
The digestive and hepatobiliary systems are responsible for digestion and absorption of nutrition for all metabolic activities of the body. The liver, apart from taking part in digestion, also participates in a number of important functions. Diseases of these two systems are a major cause of morbidity and mortality.

**BMS 2550 Endocrinology (2,2,0) (E)**
The endocrine system together with the nervous system are the two major control systems that allow specialized tissues to function in an integral way. Endocrinology concerns the synthesis, secretion and action of hormones, which are chemical messengers that coordinate the activities of different cells. Apart from diabetes mellitus, endocrine diseases are a relatively rare cause of death. But the common occurrence of endocrine disorders requires certain knowledge in this field.

**BMS 2560 Hematology (2,2,0) (E)**
Blood disorders cover a wide spectrum of illnesses ranging from the commonly encountered anemias to rarely seen conditions such as congenital coagulation disorders. Diseases affecting other systems can also affect the hematopoietic functions, making their study an integral part of the assessment of any medical diseases. The objective of this course therefore aims at giving the students a general overview of hematopoietic functions and diseases affecting these functions.

**BMS 2570 Renal System (2,2,0) (E)**
The kidneys play an important role in the maintenance of the internal environment of the body. Malfunction of the kidneys can affect other systems of the body; alternatively diseases of other parts of the body can also have detrimental effects on the kidneys.

**BMS 2580 Reproductive System (2,2,0) (E)**
The reproductive system is an essential system of the body. It not only is responsible for the procreation of the species, but also responsible for the hormonal control of the sexual characteristic of the individual. Derangement in this system can cause debilitating diseases of the body.

**BMS 2610 Immunology Disease (2,2,0) (tbc)**
Rheumatology is the study of rheumatic diseases (i.e. diseases of the connective tissues, muscles, bones and joints of the body), which affect people of all ages and constitute a big medical issue. Recent advances in immunology closely relate the pathogenesis of rheumatological disorders to the immune system. The immune system is responsible for the defense mechanism of the body. It helps the body to fight invading pathogens, destroy altered and cancerous cells and clear up old and dying cells. Malfunction of the immune system will cause a number of diseases. Autoimmunity causes most of the connective tissue diseases of the body. 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.

**BMS 2620 Nervous System (2,2,0) (tbc)**
The nervous system is responsible for perception of the external environment, an individual's behaviour in it, and maintenance of the body's internal environment in readiness for this behaviour. 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.

**BMS 3190 Medical Statistics (2,2,0) (E)**
The logic of statistical thinking is a very important element in medical education. Intelligent use of facts and figures is nowadays an essential part of the training for a doctor. This course furnishes students with statistical concepts and ideas which are useful in medicine. Students' understanding will be fostered through computer experiments in a computer laboratory.

**BMS 3581-2 Honours Project I & II (3,0,*) (tbc)**
Under the supervision of project supervisor(s), final year students are required to carry out an independent research on a topic in the areas of Chinese medicine and basic biomedical science. The research project provides students with the opportunities to extend knowledge and establish a solid foundation for the development of future research planning and reporting skills.

**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 supplementation with in-depth laboratory demonstration. This will be followed by presentation of different system anatomy, including digestive, respiratory and cardiovascular, urogenital and neuronal systems. The lecture and laboratory teachings may be assisted by implementing some small group discussion sessions 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 1008-9 Biomedical Sciences Lab I & II (1,0,3) (E)**
The laboratory sessions cover Anatomy, Physiology, and Biochemistry. 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 the 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 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 their applications in medicine.

**BMSC 1025 Anatomy and Physiology (3,3,0) (tbc)**
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.

**BMSC 2005 General Pathology (3,3,0) (tbc)**
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. 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 2006 Microbiology (2,2,0) (tbc)**
Microbiology is the study of microorganisms, which are responsible for much of the breakdown and natural recycling of organic material in the environment. Of the vast number of species of microbes, only a few have the capacity to cause disease by invading the tissues of other living organisms and producing toxic substances. The purpose of this course is to introduce to the students the basic principles and concepts of medical microbiology, the various classes of microorganisms that interact with humans. Other disease-producing multicellular parasites, helminthes and flukes will also be taught.

**BMSC 2007 Pre-clinical Sciences Lab (1,0,3) (tbc)**
The laboratory sessions cover Microbiology and Pathology. Through these practices, the concepts regarding pathogenesis and manifestations taught in lectures 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) (tbc)**
The laboratory sessions cover Fundamental Diagnosis, Pharmacology and Surgery. Through these practices, the concepts regarding pathogenesis and manifestations taught in lectures demonstrated and enhanced by case studies and hand-on experiences, and some common skills in medicine and scientific research will be learnt.

**BMSC 2016 Fundamental Diagnosis (4,4,0) (tbc)**
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 procedures and interpretation of their results will be introduced. They will also learn how to utilize these ancillary investigations to help them confirm their preliminary diagnoses. Ample examples of the investigations will be shown e.g. ECG of a patient with myocardial infarction, normal X rays of different parts of the body and X rays of diseased states, CT's, MRI's, and isotopic scans of common conditions. Applications and indications for these investigations will also be explained.

**BMSC 2017 Pharmacology (3,3,0) (tbc)**
This course aims to provide students with fundamental knowledge on the use of xenobiotics as orthodox Western drugs in the treatment of human diseases. In the beginning of the course, the important principles of pharmacology will be introduced. This is followed by a series of topics on the therapeutic approach in tackling inflammation and pain management. Subsequently, a systematic coverage on the mechanisms of action of drugs acting on various organ systems will be covered, from different components of the nervous system to the cardiovascular, pulmonary and renal systems. The last but most important section of the course is on chemotherapeutic agents, ranging from the use of antibiotics to the different classes of anti-tumor drugs. In addition, students also have the opportunity to participate in a semester-end group presentation on approved topics relevant to pharmacology. By the end of the course, students are expected to acquire essential knowledge on the different classes and clinical uses of most conventional drugs used in Hong Kong.

**BMSC 3005 Hematology (2,2,0) (tbc)**
Blood disorders cover a wide spectrum of illnesses ranging from the commonly encountered anemias to rarely seen conditions such as congenital coagulation disorders. Diseases affecting other systems can also affect the hematopoietic functions, making their study an integral part of the assessment of any medical diseases. The objective of this course therefore aims at giving the students a general overview of hematopoietic functions and diseases affecting these functions.

**BMSC 3006 Cardiovascular System (2.5,2.5,0) (tbc)**
In the modern era, cardiovascular disease contributes greatly to the burden of the healthcare system. In industrialized societies, it is the most frequent cause of adult death. It is important that students should be quite familiar with diseases affecting this system.

**BMSC 3007 Digestive System and Hepatobiliary System (2.5,2.5,0) (tbc)**
The digestive and hepatobiliary systems are responsible for digestion and absorption of nutrition for all metabolic activities of the body. The liver, apart from taking part in digestion, also participates in a number of important functions. Diseases of these two systems are a major cause of morbidity and mortality.

**BMSC 3015 Infectious Diseases (2,2,0) (tbc)**
In the modern era, infectious diseases still cause morbidity and mortality in man despite the advent of immunization and antibiotics. It is important that healthcare givers are familiar with the general aspects, epidemiology, diagnosis, prevention and treatment as well as description of individual infectious diseases.

**BMSC 3016 Respiratory System (2,2,0) (tbc)**
The respiratory tract is directly open to the outside environment and is easily affected by external changes. Primary respiratory diseases are responsible for a major burden of morbidity and untimely death, and the lungs are often affected in multisystem diseases.

**BMSC 3017 Endocrinology (2,2,0) (tbc)**
The endocrine system together with the nervous system are the two major control systems that allow specialized tissues to function in an integral way. Endocrinology concerns the synthesis, secretion and action of hormones, which are chemical messengers that coordinate the activities of different cells. Apart from diabetes mellitus, endocrine diseases are a relatively rare cause of death. But the common occurrence of endocrine disorders requires certain knowledge in this field.

**BMSC 3025 Medical Ethics (1,1,0) (tbc)**
This course is an introduction to medical ethics. Medicine and ethics are interwoven in a number of ways. First, medicine as a profession means that physicians need to be sensitive to professional ethics as other professionals do. Second, the clinical encounter between physicians and patients requires both parties to reflect on the moral propriety of the many-faceted therapeutic relationship. Third, some medical therapy and treatment might be medically effective but morally controversial. This course provides an overview of these issues.

**BMSC 3026 Renal System (2,2,0) (tbc)**
The kidneys play an important role in the maintenance of the internal environment of the body. Malfunction of the kidneys can affect other systems of the body; alternatively diseases of other parts of the body can also have detrimental effects on the kidneys.

**BMSC 3027 Reproductive System (2,2,0) (tbc)**
The reproductive system is an essential system of the body. It not only is responsible for the procreation of the species, but also responsible for the hormonal control of the sexual characteristic of the individual. Derangement in this system can cause debilitating diseases of the body.

**BMSC 3035 Immunology Disease (2,2,0) (tbc)**
Rheumatology is the study of rheumatic diseases (i.e. diseases of the connective tissues, muscles, bones and joints of the body), which affect people of all ages and constitute a big medical issue. Recent advances in immunology closely relate the pathogenesis of rheumatological disorders to the immune system. The immune system is responsible for the defense mechanism of the body. It