BIOL 7080 Immunology (3,3,0)
Prerequisite: BIOL 1210 Cell Biology, BIOL 2160 Genetics and Evolution and BIOL 2210 Animal Physiology
This course provides basic concepts in the rapidly advancing field of Immunology. To expose students to modern and current applications of Immunology in Cell Biology, Molecular Biology and Medical Sciences.

BIOL 7090 Neurobiology (3,3,0)
Prerequisite: BIOL 2210 Animal Physiology
The course studies neurobiology with main emphasis on how neuronal information is integrated in the CNS to control functions such as visual recognition, sleep, memory and movement. The course also studies the autonomic nervous system with emphasis on its control of body functions. Lastly, the relationship between the nervous system and the hormonal system will also be stressed.

BIOL 7100 Plant Propagation and Breeding (3,3,0)
Prerequisite: BIOL 1130 Biodiversity and BIOL 2230 Plant Physiology
This course is divided into two main sections, plant propagation and plant breeding. Students are expected to understand the principles involved in the practices of the two important aspects of applied plant sciences. Both conventional and modern methods, and technology are introduced with emphasis on the plant micropropagation and conventional hybridization breeding.

BMS 1140 Biochemistry (3,3,0) (E)
This course provides an introduction to the basic concepts of biochemistry with examples relevant to Chinese medicine. Topics covered include carbohydrates, lipids, proteins and nucleic acids in the human body. Special attention is given to the respective building blocks, structures, functions and metabolisms. Bioenergetics, enzymes and coenzymes will also be discussed.

BMS 1150 Biochemistry—Laboratory (1,0,3) (E)
Co-requisite: BMS 1140 Biochemistry
This course provides students with practical training related to the principles of Biochemistry, and enables students to apply their knowledge and techniques to perform selected biochemical experiments, which include isolation and characterization of biomolecules, enzymatic mechanism and metabolism of some biomolecules.

BMS 1221-2 Anatomy, Histology and Physiology—Laboratory I & II (1,0,3) (E)
Co-requisite: BMS 1271-2 Anatomy, Histology and Physiology I & II
This laboratory course aims to reinforce concepts taught in lectures by means of audio-visual aids, models, specimens and tissue sections. The students will learn functional aspects of human body by conducting various experiments.

BMS 1230 Molecular Biology (1,1,0) (E)
To provide students with the basic concepts of gene manipulation and detection. Special emphasis will be placed on their application in pharmacognosy.

BMS 1240 Molecular Biology—Laboratory (1,0,3) (E)
Co-requisite: BMS 1230 Molecular Biology
To introduce students with different genetic manipulation and detection techniques in molecular biology.

BMS 1260 Medical Psychology (2,2,0) (tbc)
This course aims at providing students with basic knowledge about the theories and concepts in medical psychology, developing their ability to apply psychological explanations to individual's daily social behaviour, and examining current psychological issues related to people in Hong Kong.

BMS 1271-2 Anatomy, Histology and Physiology I & II (2.5,3,0) (E)
This course aims to introduce the basis of gross anatomy and histology of human body, and to understand how different body parts perform various physiological functions.

BMS 1310 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.

BMS 1320 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.

BMS 1330 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 be exposed to several common techniques used by molecular biologists, with special emphasis on the applications in medicine.

BMS 1340 Microbiology (2,2,0) (E)
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.

BMS 1350 General Pathology (3,3,0) (E)
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.

BMS 1370 Pharmacology (3,3,0) (E)
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.

BMS 1380 Fundamental Diagnosis (4,4,0) (E)
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.

BMS 1431-2 Biomedical Sciences Lab I & II (1,0,3) (tbc)
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 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.

BMS 1460 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.

BMS 1490 Clinical Sciences Lab (1,0,3) (tbc)
The laboratory sessions cover Fundamental Diagnosis 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.

BMS 2230 Microbiology and Immunology (3,3,0) (E)
The immune system is a defence system which protects the body from invading pathogens. This course aims to (1) provide medical students with basic training in medical microbiology, and (2) introduce the basic understanding of the structure and functions of immune system. These include microscopic observation of pathogenic microorganisms, detection of causative agents, and specific immunologic reactions to foreign antigens.

BMS 2240 Microbiology and Immunology— Laboratory (1,0,3) (E)
Co-requisite: BMS 2230 Microbiology and Immunology
This course introduces the fundamental concepts of microbiological and immunological techniques to students taking the programme of Chinese medicine. These include (1) the basic techniques in handling microscopic observation of pathogenic microorganisms; (2) the identification of lymphoid organs, antigen-antibody interactions, generation of humoral and cell-mediated immune responses; and (3) the application of immunological techniques in medical diagnosis.

BMS 2250 Medical Ethics (3,3,0) (E)
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.

BMS 2260 Medical Ethics (1,1,0) (E)
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BMS 2430 Surgery and Emergency Medicine (3,3,0) (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.

BMS 2450 Public Health and Family Medicine (3,3,0) (tbc)
Public health is the science and art of preventing disease, prolonging life and improving the health of communities through education, promotion of healthy lifestyles and research for disease and injury prevention. It deals with preventive rather than curative aspects of health; and with population-level, rather than individual-level health issues.
Family medicine is a medical specialty that provides continuing and comprehensive healthcare for individuals and families, including all ages, sexes, organ systems, and disease entities.

BMS 2510 Cardiovascular System (2.5,3,0) (E)
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.

BMS 2520 Infectious Diseases (2,2,0) (E)
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.

BMS 2530 Respiratory System (2,2,0) (E)
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.