**留学生本科临床医学专业**

**课程简介**

**The Curriculum Introduction in Brief**

**for MBBS**

# **Systematic Anatomy**

Systematic Anatomy is the science dealing with morphology and structures of normal human body; it is the basic medical course for the students of clinical medicine. The main task of this subject is to study the shapes and structures, arrangements and relationships of organs, and provide the basis for later medical courses.

This outline only deals with basic theory, knowledge and basic ability of Human Anatomy. The contents listed, according to different standards, may be divided into two different ranks, but both are important to medical students. The references in the textbook will not present in the outline.

The teaching of Human Anatomy should be guided by dialectical materialism, should carry out the principle of combining theory with practice, shape with function, and direct the students to observe and study the essentials of Human Anatomy.

During teaching, it is important to introduce the new scientific progresses, make the students correctly use Anatomical terms, and also learn appropriate English Anatomical names for reading books and periodicals in English.

In lecturing, focal points should be stressed, and it is important to use elicitations method of teaching, to strengthen the qualitative education, to arouse the students’ learning activity, to cultivate the students’ ability of analyzing, inducing and solving problems. In the laboratory studying, it is important to cultivate the students’ ability of observing and identifying organs and structures of human body, and the ability of analyzing, synthesizing, describing and remembering the structures.

# **Histology and Embryology**

Histology and embryology is an important course of the medical science. The purpose of this course is to make students to master the microstructure of the human body and the development of the human embryo and fetus, and to lay a firm foundation for the following basic and clinic courses. Both basic theoretical knowledge and technical ability of histology and embryology should be imparted to students in the teaching course, to develop their capacity of independently observing, thinking, analyzing and resolving problems. Through study, students should ①master the morphology and function of the body's basic tissues and main organs, and early development of the human embryo and commonly seen malformations of the body; ②learn to correctly use the microscope, and recognize the histologic sections and electron micrographs of various tissues and organs of the human body.

# **Cell Biology**

Cell biology is one of the rapid growing fields in life sciences. It provides a strong base for biomedicine. This cell biology course is opened for the students of 5-year clinical medical specialty, which is composed of lecture and experimental parts. Through this course, the students can master the basic concepts of cell biology, the main research methods of cell biology, the formation and evolution of cells, the major chemical components of a cell, cellular structures and their biological functions, and, finally, application of the knowledge of cell biology in basic and clinical medicine. The teaching material edited by the Department of Cell Biology, College of Basic Medical Sciences, DMU is used in the lecture and experimental courses. The Cell Biology Textbook edited by Jin-Dan Song and published by People’s Health Press is recommended as reference book.

# **Biochemistry**

Biochemistry is the study of life on the molecular l evel. Therefore, biochemistry, as the name implies, is the chemistry of life. Life, at its most basic level, is a biochemical phenomenon including two basic characteristics: self-refresh (metabolism), and self-replication and self-assembly (expression and transmission of genetic information).

The 21th century is an era of life science. Lots of wonders are being created, and explosive information is being provided at an unprecedented speed. Biochemistry is a window opening to the world of life science. Thus, the knowledge of biochemistry which involves the study of chemical molecules and reactions in living organisms, and the elucidations of the nature of live phenomenon on the molecular level, is essential to medical students, as well as to the students of other related disciplines.

As is known to all, when biochemistry is taught in English, it will be double-beneficial to the students, for they get trained in their professional language while learning biochemical knowledge. This is not only significant to students who want to expand their knowledge from other sources written in English apart from the Chinese versions, but also helpful to the students who are going to pursue their scientific career in the future. We have firm belief in this from many years’ experience of ours in teaching “All-English” class.

There are four contents in the chemistry: the structures and functions of biomacromolecules; the metabolism of substrates and their regulations; expression and transmission of gene information; comprehensive topics.

The theory textbooks are teaching Program of Biochemistry and Molecular biology edited by zhao Bao-chang and yang qiu. The experiment book is experimental biochemistry for medical undergraduates edited by Xu Yue-fei.

# **Physiology**

Physiology is a branch of biology, it is a science to study the normal function of organs or organ systems of living organisms.

Physiology is an important and basic course of medicine. As medical students, on the basis of knowing the normal function of organs of human body, they could understand the changes of function under different diseases, and take a feasible strategy to reach therapeutic purpose.

After studying Physiology, the students should know the main principles of Physiology, and this will lay a firm foundation for them to study other related curricula.

Textbook of Physiology (Yan Jianqun and Wu Bowei. Science Press, 2006) is selected for the theory lecture.

# **Medical Microbiology**

Medical microbiology is to study the etiology microbiology properties related to medical science, and the science of the interaction among the human body and the etiology microorganism under certain environmental condition. Medical Microbiology, as a branch of microbiology, is a basic course of medical students. It is about basic characteristics of bacteria, viruses and fungi, and the differences among them. It consists of parts: the fundamental tenets of microbiology and the concrete composition of microorganisms. The first is about the biological characteristics, the infection and immunity, the heredity and variation, and the pathological diagnosis, prevention and treatment. The second focuses on both the biological system and the clinical transmission route, expounding the biological features in microbes’ (such as prokaryote, eukaryote, and a cellular) morphology and structure, in their growth and reproduction in their heredity and variation, the effects of physical, chemical and biological factors, the pathogenesis and immunity, the microbiological diagnosis, and the principles of prevention and treatment of microbiological disease.

# **Medical Immunology**

Immunology is a subject that mainly dealt with the constitution, functions of the human immune system, the rules controlling immune response, and the mechanisms of some immunity-related diseases. The aim of the course is to help the students understand the main ideas of the immunology and master some experimental techniques, and pave the road for their further learning of other medical subjects.The textbook is 《Test book of medical Immunology》, edited by Tan Jinquan, is published by Science Press.

# **Human Parasitology**

Human Parasitology is the study of those species of the animal kingdom that cause disease in human beings. The teaching target of human parasitology is helping medical students to grasp the morphological features, life cycle and main harm of the parasites to human beings and vector-arthopods, to master the basic technology of common parasite examination and to establish foundation for clinical medicine, preventive medicine and the control of parasitic diseases.

Textbook: textbook of medical microbiology and parasitology. This textbook is designed to meet the demand of bilingual teaching to the seven- or eight-year program students, the graduate students as well as foreign students majoring in basic medicine, clinical medicine, preventive medicine, biological medicine, stomatology, forensic medicine, nursing, pharmacology, medicine laboratory science, etc.

# **Pathology**

Pathology is the foundation of clinical science. The course aims at instructing students in the following two parts of Pathology. 1)General pathology is concerned with the basic reactions of cells and tissues to abnormal stimuli that underlie all diseases. 2)Systematic pathology deals with the various diseases as they affect particular organs or systems. The four aspects of diseases that form the core of pathology are etiology, pathogenesis, morphologic changes and clinical significance.
Students are requested to be familiar with the lectures, practical lessons and literature suggested by the textbook. Students are obliged to attend the autopsy, organ demonstrations, histologic examination and end semester tests which help the students obtain more complex understanding of diseases and to pave the way for the further clinical study.

# **Pathophysiology**

Pathophysiology is a science to study the laws on occurrence, development and outcome of diseases and related mechanisms. It concern about alterations in function and metabolisms caused by diseases to present experimental and theoretical basis for prevention and therapy of diseases.

Pathophysiology is meant to bridge the gap between the basic sciences as separated disciplines and whole patient in whom knowledge of these disciplines can be integrated to explain clinic diseases. It provides students with a solid understand of states of disease and health, and also discusses the body’s adaptation to disease to help future learning and practice.

Textbook: Textbook of Pathophysiology,

Textbook of Physiology (Wang Jianzhi and Chen Guoqing. Science Press, 2006) is selected for the theory lecture.

# **Regional Anatomy**

Regional Anatomy is the medical science which deals with human morphology further than Systematic Anatomy. Human body is divided into the head, the neck, the thorax, the abdomen, the pelvis and perineum, the upper limb and the lower limb. Regional Anatomy demands that students learn the layers, the spatial interrelations of the structures in a region, and students should dissect cadavers. Regional Anatomy make students better understand morphology and structures of human body and provide useful knowledge for the clinical medicine.

# **Epidemiology**

Epidemiology is a science that focuses on the distribution and determinants of disease frequency in human populations, strategies and measures of prevention, control of disease and improvement of health. Epidemiology is a basic medicine course for undergraduate major of clinical medicine. Its task is to make the medical students master basic principles and methods through teaching, to realize the changes of care for patients from individual patient to colony angel, to improve the basic quality of the medical students, so they can analyze systematically, totally and completely from the higher levels to solve health problems and could be able to apply the epidemiology methods on carrying out clinical research.

# **Medical Statistics**

Medical Statistics is an important basic subject for medical students. The education aid and main task of this course is to understand the essential rules on mathematical statistics and to mastery the methods used to medical research, experiment designing and data analysis. Therefore, in this subject, the students’ ability to deal with the medicine research is improved; the students’ basic medical theories and skills are perfected; the students’ ability to solve practical problems by using theoretical knowledge is trained; the statistical thinking way is learned.

The students should master the basic thinking in medical statistics, read medicine journals fluently, understand generic methods on experiment designing and data analysis, operate calculator skillfully.

《Medical Statistic》 pressed by Dalian Medical University , which was edited by Liu QiGui ,Song GuiRong, Hu DongMei , are used.

# **Hygiene**

Hygiene is a discipline in the field of preventive medicine and an important part of medical science. The tasks of “hygiene” are, to study relationships between various environmental factors in affecting health, to provide theoretical basis for hygienic requirements in improving environmental conditions, and to set principles of hygienic measures. Its objectives are, to prevent disease, to promote people’s health level, and to increase their working capacity. All of these should be conducted under the guiding principle, “Primary Prevention”, and in accordance with the standpoint, view, and method of dialectical materialism.

The contents in this book include “Environmental and Health”, “Occupational and Health” and “Food and Health”. It covers the major contents in preventive medicine.

The methodology of “hygiene” includes the following respects: (1) observations on human population by field investigation or epidemiological study; (2) toxicological study.

The aim of teaching “Hygiene” for medical students is to make them establish the idea of “primary prevention”, realize the close relationships between the environment and human health, understand the harmfulness of major environmental factors and know the methods of evaluation and improvement of environmental conditions.

# **Pharmacology**

Pharmacology is a science to study the law of drug-body or drug-body-pathogen interaction. It is one of the basic curriculum of medicine necessary for students majoring in clinical medicine. Pharmacology serves as a bridge between basic and clinical medicine and provides scientific principles for diagnose, prevention, and treatment of diseases.

The contents of pharmacology are divided into two parts: general principles and drugs classified according to their clinical uses (subdivisions). The basic concepts of both pharmacokinetics, pharmacodynamics, factors which influence drug effects are illustrated in general principles. The mechanism of action, pharmacological effects, pharmacokinetic characteristics, clinical application, and major adverse effects of drugs are covered in subdivisions. Students should master the common mechanisms, therapeutic effects, and major adverse reactions (ADR) of drugs in each classification via studying the representative drugs (they are in boldface type and are underlined, such as aspirin). Teachers should guide students to master the basic theories, basic knowledge, and the ability to perform experiments during study.

To achieve the goal for training the students to be qualified, capable to master the knowledge studied in different courses, get valuable information/knowledge by students themselves, and able to solve problems in clinical practice, the instructors are required to guide students to integrate knowledge studied in different courses and write paper dealing with the relationship between body function and drug effects via problem based learning and case study. Students should learn to comprehensively, logically understand, analyze, and integrate knowledge they have learned.

Theory test and practical examination are of 80% and 20% respectively. Among theory exam, paper writing is of 30%.

# **Clinical Immunology**

Immunology is a subject that mainly dealt with the constitution, functions of the human immune system, the rules controlling immune response, and the mechanisms of some immunity-related diseases. Immunology is a fundamental course for medical students which consists of basic immunology and clinical immunology, The latter is learned after basic immunology and based by it. The subject mainly introduces the relationships between immune response and clinical diseases, as well as the immune pathogenesis of them. Meanwhile expatiates the applications of immunological techniques in the diagnosis and treatment of diseases. The aim of the course is to help the students understand the main ideas of the immunology and master some techniques, and pave the road for their further learning of other medical subjects. The textbook is 《Test book of medical Immunology》, edited by Tan Jinquan, is published by Science Press.

# **Clinical Diagnostics**

A、Character and task

The diagnostics serves as a bridge from the premedical subjects to the clinical medicine and plays an important role in clinical work. It will contribute to the proper clinical diagnosois by applying the most fundamental medical theories and clinical skills.

B、Methods and objective

The completeness and accuracy of the information collected from patients including careful history taking and physical examination will direct every medical practitioner to make proper diagnosis and treatment. The consonance established between a patient and the doctor allows the patient to feel comfortable about sharing information and is important in promoting a patient’s compliance with the prescribed therapy. During the work of clinical diagnosis, it is the student’s responsibility to:

1. To open an interview independently and completely, and know the clinical significance and internal connection among chief complaints, symptoms and signs,

2. To perform the complete physical examination smoothly and efficiently item by item and ensure its validity.

3. To master the operational procedure of an electrocardiograph, and know how to read normal record and several common abnormal electrocardiograms such as myocardial ischemia, myocardial infarction, atrial and ventricular enlargement, premature beat, atrial and ventricular fibrillation and heart block.

4. To form the complete or problem-oriented medical record according to the materials of interview and physical examination.

5. To make an initial diagnosis by analyzing and colligating the information of history taking, physical examination, laboratory and assistant examinations.

# **Laboratory Diagnostics**

Laboratory diagnostics is one part of diagnostics. It serves as a bridge between preclinical medicine and clinical medicine. Laboratory diagnostics is a subject that can scientifically utilize laboratory results for clinical diagnosis, differential diagnosis, monitoring pathogenetic condition, observing curative effects and prognosis.

Clinical laboratory detects the samples such as blood, body liquid, secretions, excreta and cast-off cells in vitro by reagent, apparatus and technology. It can take quality control broadly and achieve reliable results or data. According to the above results or data, corresponding to clinical information and other auxiliary examinations, laboratory diagnosis analyses logically and scientifically. Ultimately, it can provide objective evidence for diagnosis, research and health care. Recently, with the development of the preclinical medicine, clinical medicine, population medicine and bioengineering, clinical laboratory is making progress to high theory, high technology and high level. As a result, it forms Laboratory Medicine gradually.

Laboratory diagnosis mainly includes clinical hematology diagnosis, clinical chemistry diagnosis, clinical immunology diagnosis, clinical microbiology diagnosis and clinical molecular biology diagnosis.

Today, laboratory diagnostics has been updated continuously with the development of some corresponding subjects and laboratory technology, such as apparatus automation, reagent diversification, methodology standardization, consummation of quality assurance system, clinical application of molecular biology, growth of evidence based laboratory medicine and emergence of point of care test. All of the developments can improve and enrich laboratory diagnosis.

In clinical practice, laboratory diagnostics can provide evidences for clinical diagnosis, differential diagnosis, observing curative effects and estimating prognosis. It also can offer information and date for prevention of diseases and scientific research.

# **Diagnostic Ultrasound**

Diagnostic ultrasound is an important branch of modern medical imagings which can make diagnosis of diseases through ultrasonic principles. It is the most widely used imaging method in clinical practices. The teaching syllabus is for the teaching of oversea students. The students should have a initial understanding of diagnostic ultrasound and graspe the ultrasound findings of commom clinical diseases. The teaching book: 《Text-book of Diagnostic Ultrasound》，editor: Zhang Yuhong.

# **Medical Imageology**

Main contents: medical imageology includes diagnostic radiology、ultrasonography、X-ray computed tomography (CT)、magnetic resonance imaging (MRI)、emission computed tomography (ECT)、single photon emission computed tomography (SPECT)、positron emission tomography (PET) 、 interventional radiology、picture achiving and communication system (PACS) and molecular imaging. This curriculum consist of general introduction、musculoskeletal imaging、thoracic imaging、heart and great vessel imaging、gastrointestinal imaging、 central nervous system and interventional radiology all together 7 pieces. It mainly introduce the imagine rule 、the imagine examination techniques、the normal imaging features of human body、the basic imaging features in diseases of musculoskeletal system、respiratory system、circulation system、gastrointestinal system and central nervous system, and the image distinguishing features of different imaging equipment in the common diseases were mainly presented ; the imaging alteration analysis and diagnosis essential、 imagine representation and discrimination essentials, including the X-ray, CT, XRI and ultrasound diagnosis were also introduced. At last the interventional radiology was briefly explained. Through the curriculum, clear and abundant imagings of X-ray film、CT and MRI of the common diseases in different systems were presented, and some questions and answers were given to help learning and understanding the contents.

# **Surgery**

Surgery is an important component in medicine, whose object is the disease that is mainly treated by surgical operation or surgical skills, such as injury, infection, tumor, deformity and others.

The content of surgery not only contains the operation, but also contains the associated theoretical knowledge, consisting of etiology, pathology, pathogenesis, diagnosis, prophylaxis and treatment.

It is our teaching purpose to make students generally master the essential theory and science of surgery, as well as to exercise the surgical skills. Throughout the book, we hope that students will master the diagnosis, differential diagnosis, and treatment principle of common diseases, establish the correct conception of asepsis, at the same time, they will be familiar with the methods for sterilization, and grasp the elementarily surgical skills, So that they will make full preparation for future clinical work.

# **Surgical Operations**

Surgical basic operation is the important part of surgery.Via learning and normal training these contents,make all the students know much about asepsis;know how to use instruments in the operation;know much about basic skills of surgery and take part in some operations that make them to know asepsis,train basic skills of surgery and anesthesia management.

# **Internal Medicine**

Internal medicine is one of the most important clinical medical science, which is also the base for other clinical subjects. The etiology, mechanism, clinical feature, diagnostic and therapeutic methods of common disease in internal medicine should be teaching systemically. It must be emphasized on the combination of theory and practice throughout the whole teaching process. Theoretic knowledge of basic science should also be taught because it is important to let students know “why it is so”. Heuristic and case discussions are encouraged in class. Students must be trained with logical clinical thinking under the help of teachers.

# **Clinical Neurology**

This course includes Neurology pandect and partial segment. The pandext mainly teaches localization diagnosis of neurological lesions, collection of the illness history, examination of the nervous system; the partial segment teaches the diagnosis and treatments of common neurological diseases.

# **Clinical Psychiatry**

Psychiatry is a section of medicine. It is a clinical medicine that studies causes, mechanisms, clinical syndromes or signs, prognosis, diagnosis and treatment of mental illnesses. Psychiatry has many branches, for example, community psychiatry, consultation-liaison psychiatry, geriatric psychiatry, child psychiatry, transcultural psychiatry, judicial psychiatry, biological psychiatry, clinical psychiatry, etc.

The focus of this section will be on the neurotransmitter systems in the central nervous system that are most relevant to psychiatry. Some of the technological advances that have contributed to a better understanding of psychiatric illnesses will be discussed.

# **Communicable Disease**

The Communicable Disease is one of the important clinical courses of clinical medical science profession. According to the request of the development target, pass various way teachings, can make the students grasp the basic knowledge, the foundation theories and basic technical abilities of the prevention and cure infectious diseases, lay the foundation for control and exterminate the infectious disease .

The Communicable Disease includes the parasite diseases and some common diseases . Because the international association is multifarious, even in the our country, some rare infectious disease still has the possibility of the occurrence, which has been written into at the same time. The diseases are classified by etiology. This outline choose some common infectious disease as principle, and the teaching material choose 《Communicable Diseases》 edited by YANG SHAO JI using by the 7 years system programs students. The people health publisher publish, providing the classroom tuition and apprenticing to read and self-educated with.

# **Obstetrics and Gynecology**

Obstetrics and Gynecology is on the basis of the physiological characteristics in deferent ages of the whole female life .it study the Health care of women and the prevention of disease.Obstetrics and Gynecology include Gynecology、Health care of women、Family planing and so on.the task of Obstetrics and Gynecology is let student master the law of common disease in Obstetrics and Gynecology through teaching.

# **Pediatrics**

Pediatrics is a subject that studies child growth and development, health care improvement and disease prevention and treatment. Our task is to continually broaden our knowledge and clinical experience, increase levels in prevention and treatment of disease, reduce child morbidity and mortality, keep and improve child health, and enhance health quality of Chinese people. Pediatrics` leaning can offer a basis for students who will be engaged in pediatric clinical medicine, child health care, or community medical service. Outline of pediatrics is based on Pediatric textbook of 6th edition, combined with clinical teaching and clinical practice, and referenced to China Medical Licensing Examination. It will be helpful for medical students to learn pediatrics.

# **Forensic Medicine**

Forensic Medicine is a branch of medicine that applies the principles and knowledge of the medical sciences to problems in the field of law. Before studying forensic medicine, students would have learnt subjects of preclinical medicine and clinical medicine which includes anatomy, pathology, pharmacology, biochemistry, internal medicine, surgery e.g. At the same time, they would have got in touch with clinical treatment.

Through the course of forensic medicine, students will grasp basic theories and technical skills on forensic medicine which can be used to identify some common and typical cases in the future.

Adopted textbook: Forensic Pathology, 2nd ed. Di Maio V. J., et al. Boca Raton: CRC Press.

# **Otorhinolaryngology**

Otolaryngology is the study of the ear, nose, pharynx, larynx, trachea, esophagus, head and neck, and basic and clinical medical disciplines of other related interdisciplinary, Between the anatomy, physiology, examination and treatment of diseases and oral and maxillofacial surgery that is have a close relationship, but also there are their own unique professional features. Learn Otolaryngology oral medicine is extremely important for undergraduate.

The syllabus is summed up in my school years teaching experience in otorhinolaryngology and the combination of Otolaryngology seven-year textbook (Weijia editor) content . The syllabus not only pay attention focused and systematic,but also noting the common lecture with the disease, and strive to integrate theory with practice.Through lectures and internships, students have a systematic knowledge and understanding to otorhinolaryngology.

The large range of otorhinolaryngology is involved with dentistry, ophthalmology, pediatrics, surgery, neurology, neurosurgery, circulation, respiration, blood endocrine, allergic reactions and other closely related, and related to hearing, balance, smell, taste, sound and language functions.Therefore, the outline is not only reflected the scope of modern otorhinolaryngology, but slao noting that the relevant departments of the knowledge and application of new technologies, breaking the boundaries of the past. For example: 1, skull base surgery, head and neck surgery, microsurgery, endoscopic sinus sinus surgery, tympanoplasty, nose, facial plastic surgery and cosmetic surgery and so on. 2, check the laws of modern hearing, balance function examination, brainstem evoked potentials, CT, MRI, and various fiber endoscope applications.

In inflammation and cancer, focusing on requirements emphasize Otolaryngology systematic and professional characteristics and continuity in key chapters to introduce modern medical science achievements and development direction.

Teaching contents and requirements

In inflammation and cancer of Otolaryngology , focusing on emphasize Otolaryngology systematic and professional characteristics and continuity in key chapters to introduce modern medical science achievements and development direction.

# **Dermatovenereology**

Dermatovenereology is composed of dermatology and venereology. Dermatology is the study of the skin and its appendages, including the hair and nails, and of the diseases associated. Venereology is the study of sexually transmitted diseases. Students should know that skin is an important organ reacting with the body by these lessons. Students are required to know symptoms, diagnosis and treating principles of common skin diseases and sexually transmitted diseases. Topical medicine with different forms, effects and applying principles are also required.

# **Stomatology**

Oral science is one of the main subjects in medicine and is about etiology, diagnosis, prevention, and prevention of oral and maxillofacial diseases. The teaching of this course is based on grasping general medicine basis, oral medicine basis and clinical medicine with a teaching focus on basic theory, basic knowledge, basic skills and an interpretation of oral and maxillofacial anatomy physiology, tooth & periodontal tissue common diseases, oral mucosal disease, oral local anesthesia & exodontia, oral and maxillofacial injury and infection, salivary glands and temporomandibular joint diseases, common oral and maxillofacial tumors, elderly oral diseases and systemic diseases related to oral tissue. This course is aimed at making the students to be familiar with diagnosis and treatment of common oral diseases and establish the overall concept of oral local and systemic organic unity.

# **Nuclear Medicine**

Nuclear medicine is a kind of science which is to investigate application and theory of nuclear technique in medicine.

Clinical nuclear medicine is a subject which is to investigate the theory and the application technique of nuclide and nuclear radiations in clinical diagnoses and therapies.

By nuclear medicine teaching, students should master basic points of nuclear medicine diagnoses and therapies on the basis of understanding nuclear medicine principles and characteristics so that nuclear medicine can be accurately applied in clinical medicine. In the process of teaching and teaching reformation, more attention should be paid on continual improvement of teaching approach, teaching forms and teaching methods in order to accommodate to the renovation of nuclear medicine knowledge and techniques, develop students abilities to link theory and practice, and set up scientific thinking methods. During the process of teaching, teaching lantern slide of English version will be adopted and the proportion of spoken English teaching will be increased in order to satisfy the bilingual teaching requirements of clinical medical majors.

# **Chinese Language**

Chinese is one of the compulsory courses for all the foreign students. From this course, our aim is to build up students’ skills in listening, speaking, reading and writing. Most important, we focus on developing students’ communication competence, so they can put what they have learned immediately into practice outside the classroom. Also, we disseminate Chinese culture to the students from other countries.

The Teaching objective is to grasp Chinese of medical specialty on the basis of elementary Chinese. The whole Chinese course is divided into three parts. Chinese I-III is a phase which emphasizes the basic language knowledge. Chinese IV is a course which lays the foundation for medical Chinese. Chinese V-IX is a period which reinforces the language skills for clinical practice purpose.

# **Chinese Culture in Brief**

China is wondrous and awe-inspiring. It has a history of more than five thousand years. It is the only continuous ancient civilization. Chinese culture is rich and profound. It has the richest historical records. Chinese have been most historically-minded. Perhaps, China has more historical records than the whole world put together. On reading through this historical range of remarkable creativity and flair for innovation, the students soon acquire a better understanding of the cultural character, life views, aesthetic pursuits and national spirit of the Chinese people.

Chinese Culture in Brief will introduce and interpret the origin and development of the Chinese traditional culture, the intension and the essence of it to the foreign students. The purposes are: firstly to propagate the distinctive heights of Chinese culture to the foreign students; secondly to help them to get more insights into the concepts and passions of the Chinese nation over the past 5,000 years. The content covers the Chinese history, Chinese geography, Chinese festivals, Chinese tourists’ destinations, Chinese food and drink, etc.

The textbook, A Glimpse of Chinese Culture, Chiefly Edited by Professor Liao Huaying, was pressed by the Foreign Language Teaching and Research Press in March.2008

# **High Mathematics**

High mathematics is an important basic subject for medical students. The education aid and main task of this course is to master the classical method on High Mathematics and to use the methods to set some mathematic models about medicine. On the other hand, Mathematic is the basic lesson for Medical Statistics. Therefore, in this subject, the students’ ability to analyse the problem logically is improved; the students’ basic calculus theories and skills are demanded.

《High mathematics》 pressed by Dalian Medical University , which was edited by Liu QiGui ,TangXiao, Li GuoRong , are used.

# **Medical Chemistry**

The course contains two parts, fundamental chemistry and organic chemistry.

The purpose of fundamental chemistry is to enable student to grasp the basic principles, basic theory and basic knowledge of chemistry. Fundamental chemistry includes the following chapters: Introduction, Colligative properties of Dilute solution, Electrolyte Solution, Buffer solution, Chemical Thermodynamics and Thermochemistry, Rate of Chemical reaction, Oxidation-Reduction Reaction and Electrode potential, Structure of the Atom and Periodic Law, Covalent Bond and Intermolecular Force, Coordination Compounds.

The purpose of organic chemistry is to enable students to understand the basic principles of organic chemistry. The course includes the study of different kinds of organic compounds, including alkanes and aromatic hydrocarbons, haloalkanes, alkenes, alkynes, alcohols, phenols, ethers, aldehydes, ketones, carbohydrates, carboxylic acids, esters, amines, amides, lipids, amino acids. Students are required to know the nomenclatures and structures of organic compounds, and typical chemical reactions of different kinds of organic compounds.

# **Physics for Medicine**

We aimed at presenting fundamentals of physics, giving due consideration to the need of medicine. We set about the work in accordance with the teaching program for medical physics .the content differs in several ways from conventional physics textbooks designed for science majors.

The choice of basic physics topics to be included or emphasized has been determined by the needs of medicine majors. such as motion of fluids, phenomena on liquid surface, acoustics, ultrasound, electric current, geometric optics and x-rays, wave properties of light, nuclear physics.

# **Computer Application**

1、Quality and assignment of courses

Computer science is a required course for student abroad who come from India, Nepal and Pakistan, etc. The main content of the course is computers basic knowledge, basic concept and basic operation skill, emphasize using of system software and application software, knowledge of computer application realm, help student learn and apply computer knowledge.

2、Basic teaching requirement

Knowing basic concept and basic general knowledge of computer science;

Knowing basic general knowledge of microcomputer;

Using Windows system expertly;

Mastering office 2000: Word 2003 、Excel 2003 and PowerPoint 2003；

Knowing basic knowledge of computer network, using internet expertly;

Knowing some common application softwares.

Teaching material: 《Computer Science》,written by Xiao Feng etc ,Dalian Medical University publishing company,2012.

Reference book: 《Computing Essentials》，written by Timothy J.O`Leary , higher education publishing company,2004.

# **Physical Education**

Physical education course is one of the basic courses which are put into the higher education teaching program; it is the center of the physical education in higher education schools, as well as the main approach to accomplish the physical education in higher schools.

The basic mission for international students’ physical education course is: enhances the corporeity and health, comprehensively improves students’ physical ability and the adaptability to the environment, ensuring their pleasant stay at school and successful completion of study, meantime enhancing the communication between foreign and Chinese physical cultural.

# **Medical Psychology**

The term ‘Medical Psychology’ of China is largely equivalent to ‘Clinical Psychology’ of the western world. As a major branch of applying psychology, clinical psychology includes the scientific study and application of psychology for the purpose of understanding, preventing, and treating psychologically-based distress or dysfunction and to promote subjective well-being and personal development. However, Medical psychology focuses more on the psychological problems in medicine practice, especially the knowledge concerning the relationships between psychological variables and physical health and illness, thus is named as Medical Psychology, for differentiating from clinical psychology set by general university.

Accordingly, the course Medical Psychology presents a rather comprehensive set for collage medical students to understand from the basis of psychology to various theoretical considerations of human psychological phenomenon, to the etiology and mechanisms of abnormal behavior and psychosomatic disorders, to the basic tools of psychological assessment and basic techniques of psychotherapy. For most of the medical students, the basic principle of psychology, the etiology and mechanisms of mental disorders and the mechanisms of psychosocial stress leading to functional or physical disturbances of the organism should be the focus of the course.

# **Medical Ethics**

Contents: Medical Ethics is an interdisciplinary subject composed by medicine and ethics, the application of basic ethical principles in the medical field, to study ethics education and ethical issues of life. It aims to help students understand the dual nature and requirements of medical sciences and humanities, improve their professional ideas, to develop good professional qualities. Medical ethics education enables students to understand and solve the problem of medical ethics should be consistently respect, justice, autonomy, tell students how to select a good medical practice act. With the development of bio-medical technology, medical ethics tell students how to balance the benefits and risks when we deal with life sciences and medical technology applications. Medical ethics do not let us to find a solution to ethical issues in the right way, but help students establish a scientific thinking when they face the complex ethical issues.

Textbook: Medical Ethics, edited by Jiang Lan shu, Zhang Bin, Dalian medical university.