on probabilistic thinking, and applications will demonstrate the introduced concepts throughout.

## MATH 7090 Advanced Numerical Methods and (3,3,0) Algorithms

Prerequisite: Postgraduate standing or consent of instructor This course will mainly study several modern numerical methods developed in the last one or two decades. These methods will be applied to simple model problems as well as some problems with strong physical applications, such as nonlinear conservation laws and the Navier-Stokes equations. This course will provide students with a sound understanding of the highly accurate and efficient numerical schemes and a useful training on how to implement these methods.

## MATH 7110 Numerical Analysis of Delay (3,3,0) Differential and Volterra Functional Equations

Prerequisite: Postgraduate standing or consent of instructor Collocation and Galerkin methods in piecewise polynomial spaces play a fundamental role in modern numerical analysis. This course introduces the students to the application of these methods to standard integral (and integro-differential) equations of Volterra and Fredholm type, and to analogous problems with singular kernels (including boundary integral equations). While the focus of the course is on the analysis of the convergence and stability properties of these projection methods, various aspects of the practical implementation of the methods are also studied in detail.

#### MATH 7120 Special Topics in Mathematics (3,3,0)

Prerequisite: Postgraduate standing or consent of instructor This course is devoted to the study of up-to-date and important topics in different areas of applied mathematics. Emphasis is laid on the continuation and consolidation of those fundamental applied courses offered in the programme. It is specifically designed with the flexibility to take advantage of visiting scholars from other institutions to introduce topics that are under current research

#### MATH 7130 Advanced Topics in Mathematics (3,3,0)

This course is devoted to the study of up-to-date and important topics in different areas of applied mathematics. Emphasis is laid on the continuation and consolidation of those fundamental applied courses offered in the programme. It is specifically designed with the flexibility to take advantage of visiting scholars from other institutions to introduce topics that are under current research.

#### MATH 7620 Business Intelligence and Decision (2,2,0) Support

The aims of this course are to study the concepts and tools of business intelligence, to explore the process, contents and context of managerial decision making and to look at how business intelligence can enhance a company's competitive advantage and improve its top management decision-support effectiveness.

### MCM 7010 中醫各家學說與臨床應用 (4,4,0) Clinical Applications of the Different Theories of Chinese Medicine

本科目旨在通過學習、理解、掌握歷代著名醫家的學術思想與臨 床經驗,完善學員的知識結構,提高學員綜合運用中醫基礎知識 的能力;使學員更多地學會運用變法治病,靈活應用中醫中藥, 以解決實際問題;學習與借鑑諸多名醫的成功經驗,能縮短個人 在臨床上的摸索時間,起到事半功倍的效果。

The course will allow students to study and master the thoughts and experiences of distinguished physicians in different dynasties with a view to improving students' knowledge structure and enhancing their ability in comprehensive application of fundamental Chinese medicine knowledge. Students will also be able to cure diseases by various methods and to handle practical cases by applying Chinese medicine according to different

situations. Students may also learn from the experience of the famous physicians in order to save time from exploring in clinical practice in order to achieve twice the result with making only half the effort.

#### MCM 7030 中醫學思維與方法論 (3,3,0) Thinking Approach and Methodology of Chinese Medicine

本科目旨在使學員有系統地學習中醫學的思維方法,並強化學員 運用中醫學的思維方法解決臨床實際的能力。

This course will allow students to learn the thinking approach and methodology of Chinese medicine in a systematical way, and hence enhances their ability in handling practical cases by applying thinking approach and methodology of Chinese medicine.

# MCM 7040 中醫藥科研方法與實踐 (3,3,0) Research Methodology and Practices in Chinese Medicine

通過該科目的學習,使學員掌握中醫藥科學研究的基本程式和方法,為開展中醫藥科研工作奠定基礎。

This course will allow students to learn master the basic programmes and methods of scientific research in Chinese medicine in order to lay a foundation for scientific research work in Chinese medicine.

# MCM 7060 方劑配伍理論與實踐 (3,3,0) Formulation Theories and Practices of Chinese Medicinal Formulae

本科目旨在通過對各類方劑配伍規律的分析和歸納,並配合臨床 實踐例證的分析,使學員充分掌握方劑配伍的理論,提高學員臨 床據證析理、據理立法、依法立方的能力。

This course will allow students to learn through induction and analysis of the pattern of the various formulation theories, and incorporated with cases study and analysis in clinical practice, students will be able to have a thorough mastery of the formulation theories. Their ability to analyse clinical symptoms, establish judgment according to the symptoms, and compose formulation according to the judgment will be strengthened.

# MCM 7070 溫病學說研究與應用 (3,3,0) Studies and Applications of the Science of Seasonal Febrile Diseases

本科目旨在進一步深化學員的溫病學基本理論,掌握溫病診治的 基本規律,使學員能在實踐中熟練運用溫學的「理法方藥」,診 治多種屬於溫病範圍的急性傳染病和感染性疾病。

This course is to strengthen students' knowledge of the theories of epidemic febrile diseases and mastery of the basic pattern of treating diseases by the theory. Students will be able to skilfully apply "treatment methods and formulae" of the theory in treating various kinds of (acute) infectious diseases of epidemic febrile diseases

#### MCM 7080 肌肉骨骼疾患的檢查與診斷 (3,3,0) Examination and Diagnosis of Musculoskeletal Disorders

完成本科之學員,將能(一)通過臨床檢查對常見的肌肉骨骼疾 患進行初部診斷,(二)在 X 光片中找出常見的病變,(三) 掌握超聲波、關節造影、CT 和 MRI 的適應範圍及其報告的閱 讀。

On completion of this course, student are expected to be able to demonstrate (1) skills in carrying out clinical examination for a preliminary diagnosis of common musculoskeletal disorders; (2) the ability to examine x-ray films and identify common abnormalities; and (3) the ability to interpret ultrasound, arthrography, computed tomography (CT) and magnetic resonance imaging (MRI) reports.

# MCM 7100 內傷雜病理論研究與治療研習 (5,5,0) Theoretical and Clinical Studies on the Miscellaneous Diseases of Internal Medicine

本科目旨在使學員把握中醫治療內科雜病所具有的特色和優勢,掌握內科疑難病、常見病的中醫學術理論研究現狀及辨治規律,

加強理論在實踐中的應用,提高臨床中醫診治水平,適應臨床實際的需要。

The course provides students with the knowledge of the characteristics and advantages of treating miscellaneous diseases of internal medicine by Chinese medicine. Students will be able to master the current research practices of Chinese medicine theories as well as the pattern of differentiation of syndromes of rare and common diseases of internal medicine. Their standard of diagnosis and treatment in clinical practice will be enhanced in order to meet the practical needs.

### MCM 7110 仲景學說研究與應用 (4,4,0) Studies and Applications of the Theory of Zhong Jing

本科目將仲景學說中的辨證論治理論和方藥應用進行橫向的綜合歸納聯繫,使學員對仲景所創立的辨證論治理論有更全面的認識和瞭解,並對其中的難點、疑點和有爭議的問題進行討論,以「深化理論,突出運用」為原則,重點闡述其理論和方藥的臨床應用,弘揚仲景學說。

This course provides students with a synthetical study of the thoughts of Zhong Jing including his theories on differentiation of syndromes in diagnosis and application of Chinese medicinal formulae. Students will be able to have a thorough understanding in the differentiation of syndromes in diagnosis established by Zhang Zhongjing and participate in the discussion of the difficulties, queries and controversial points. The course focuses on the theories and applications of the theory. Emphasis will be put on the theories and applications of medicinal formulae with a view to developing the theory of Zhong Jing.

### MCM 7120 臨床研習——中醫內科研究與應用 (5,3,0) Clinical Practice—Studies and Applications of Internal Chinese Medicine

本科目旨在使學員獲得中醫內科雜病治療的實際經驗,學員們將 通過臨床觀察與實踐,掌握內科常見病、多發病、疑難病的辨證 論治規律,並靈活運用於臨床實踐。

This course enables students to gain practical experience in treating miscellaneous diseases of internal Chinese medicine. Through clinical observation and practice, students will be able to master the pattern of differentiation of syndromes of diagnosis of common diseases, frequently encountered diseases and rare diseases, and hence apply the knowledge learnt in their clinical practice.

### MCM 7130 臨床針灸學進階 (5,5,0) Clinical Acupuncture—Advanced Level

本科目建立在傳統針灸理論和在其他科目學習的針灸機理與現代診斷的知識的基礎上,以提高學員對針灸的常見病的診斷、辨證、治療的綜合運用能力。重點討論病案和臨床研究文獻,比較不同針灸療法的優缺點。在完成本科之後,學員將能(一)熟練地運用不同的針灸治療方法對臨床各科常見病進行辨證治療,並(二)對現代針灸臨床治療的進展有一個系統的認識。

This course is built upon traditional acupuncture theory, as well as prior knowledge of acupuncture mechanisms and modern diagnostic techniques. It aims to enhance the ability of students in the areas of diagnosis, symptom differentiation and treatment in dealing with conditions commonly seen in acupuncture practice. Specific emphasis will be put on case study and clinical studies of the documentations, so that the strengths and weaknesses of various acupuncture treatment methods can be compared. On completion of this course, students will be able to (1) apply different methods of acupuncture treatment for symptoms of common conditions, and (2) demonstrate a systematical knowledge of the recent advances in acupuncture therapy.

# MCM 7140 針灸的生理基礎與實驗研究 (4,4,0) Physiological Basis and Experimental Studies of Acupuncture and Moxibustion

完成本科之學員將會:(一)具備與針灸治療有關的生理系統的 知識,特別是有關痛覺的處理、軀體一自律神經反射和神經一內 分泌系統對生理功能的調節;(二)能從針灸如何影響人體生理 系統的角度去解釋針灸的療效;(三)具備現代針灸機理研究的 知識。 On completion of this course, students are expected to be able to demonstrate (1) knowledge of physiological systems related to acupuncture and moxibustion therapies, especially the process of pain sensation, somatoautonomic reflexes, and neuro-endocrine regulation of physiological functions; (2) the ability to explain the therapeutic effects of acupuncture and moxibustion in terms of their influence on the human physiological systems; and (3) knowledge of current research concerning the mechanisms of acupuncture and moxibustion.

# MCM 7150 臨床研習——針灸研究與應用 (5,3,0) Clincial Practice—Studies and Applications of Acupuncture

通過臨床訓練,提高學員對針灸的常見病的診斷、辨證、治療的 綜合運用能力。在完成本科之後,學員將能熟練地運用不同的針 灸治療方法對臨床各科常見病進行辨證治療,並能掌握現代針灸 臨床治療病證的進展和經驗。

Through the practicum training, students will be able to enhance their ability in applying skills of diagnosis, symptom differentiation and treatment in an organized way for handling diseases commonly treated by acupuncture. After finishing the course, students will be able to determine the treatment of pathogenesis obtained through differentiation of symptoms and treat common diseases skilfully by various methods of acupuncture. At the same time, students will also understand the development and obtain experience of clinical treatment of modern acupuncture.

#### MCM 7160 中醫推拿治療學 (4,4,0) Tui Na Therapy of Chinese Medicine

本科目通過講授和示範,使學生掌握必要的推拿學理論基礎及有 關疾病的發生發展規律,同時掌握手法的操作要領、手法的 基 本作用及推拿對每個具體疾病的治療方法。

With instruction and demonstration of Tui Na, students will be able to comprehend the basic theories of Tui Na, and the occurrence and programme of diseases. Students are also expected to master the treatment techniques and functions of Tui Na, as well as treatment methods for various kinds of diseases.

#### MCM 7170 中醫骨傷與骨病治療學 (5,5,0 Orthopaedics and Traumatology Therapy of Chinese Medicine

本科目通過講授和示範中醫骨傷學和中醫骨病學的基礎理論和 基本治療方法,使學生掌握有關疾病的病因病理和辨證論治的規 律。同時還能掌握具體疾病的中醫傳統治療方法,以及相應治療 手法的操作要領。內容包括骨折、筋傷和骨病三部分。

With the instruction and demonstration of the basic theories and treatment methods, students will be able to comprehend the etiology, pathogenesis, and the pattern of symptom differentiation of the diseases. Students are also expected to have a thorough mastery of the traditional treatment methods and maneuver principles of Chinese medicine to the diseases. The course covers bone fractures, tendon dislocations and bone diseases.

# MCM 7180 臨床研習——骨傷與推拿研究與應用 (5,3,0) Clinical Practice—Studies and Applications of Orthopaedics and Traumatology and Tui Na

本科目旨在使學員獲得運用中醫藥理論和臨床技能治療骨、關節、肌肉疾病及其損傷的臨床經驗,學員們將通過臨床觀察與實踐,掌握骨傷科常見病、多發病、疑難病的辨治規律以及推拿和骨傷整復等手法,並靈活運用於臨床實踐。

The course provides training opportunities to students in treating diseases and injuries of bone, joints and muscles by applying Chinese medicine theories and clinical skills. Through observation and practice, students will master the pattern of symptom differentiation of common and rare diseases, as well as the maneuvers of Tui Na and bone treatment. Students are expected to apply the knowledge in clinical practice.

### MCM 7220 醫學倫理學講座 (1,0,1) Workshop on Medical Ethics

本科目旨在(一)加深醫科學生對其專業操守及醫療診斷的倫理 意識;(二)培養學生在臨床環境中作出道德決定的概念及分析 技巧;(三)向學生講解中西方醫療的道德價值;(四)通過個