### MCM 7140 Advance in Acupuncture Research (3,3,0) (P)

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 Clincial Practice—Studies and (5,\*,0) Applications of Acupuncture

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 Tui Na Therapy of Chinese (3,3,0) (P) Medicine

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 Advanced Orthopaedics and (4,3,0) (P Traumatology of Chinese Medicine

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 Clinical Practice—Studies and (5,\*,0) Applications of Orthopaedics and Traumatology and Tui Na

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 7260 Dissertation (6,\*,\*

The aims of this course are (1) to identify an appropriate research or creative topic; (2) to develop and apply methodologies and techniques appropriate to the topic chosen; and (3) to present the results of the research or creative work in the dissertation, which may be a portfolio of compositions.

### MCM 7280 Marketing and Management of (2,0,0) (P) Industry for Chinese Medicines

This course is designed to provide students with the essential marketing and management knowledge and skills for the pharmaceutical industry. It examines the principles of marketing and management, with emphasis on marketing concept and consumer behaviour, marketing mix management, marketing planning, strategic planning and development of business plans. It adopts a case study approach to relate students with the real world situation.

#### MFFM 7010 Topics in Probability Theory and (3,3,0) Stochastic Processes

Topics from conditional expectations, Markov china, Markov processes, Brownian motion, and martingales, and their applications to stochastic calculus.

#### MFFM 7020 Derivatives Markets (3,3,0)

An introduction to the theory and practice of pricing and hedging of derivative securities. Coverage of equity and index, foreign currency, commodity, and interest-rate derivatives. Basic mathematical concepts and the institutional structure of derivative markets are discussed.

### MFFM 7030 Computational Finance (3,3,0)

Basic numerical methods, (floating-point arithmetic, numerical linear algebra, solutions of non-linear equations, interpolation, curve fitting, splines, differentiation, integration, Monte-Carlo methods, ordinary differential equations) numerical solutions of PDEs (finite-difference methods for parabolic PDEs, stability, convergence, applications to Black-Scholes equations, free-boundary problems, applications to pricing American options) and probabilistic methods (random variables, generation, Monte-Carlo simulation, binomial tree models, stochastic differential equations).

#### MFFM 7040 Time Series Analysis (3,3,0

Covers various kinds of time series models, including ARIMA, GARCH, unit roots and co-integration, and vector autoregressive models. Students will gain hands-on experience with all models learned in this course.

#### MFFM 7050 Mathematical Finance (3,3,0)

Topics from replication of trading strategies, arbitrage, completeness, martingale representation theorem, fundamental theorem of finance, stochastic differential equations, and Black-Scholes formula of option pricing.

### MFFM 7060 Derivatives (3,3,0)

Coverage of exotic options, discrete and continuous pricing models, and pricing techniques. Develops the economic foundations of the theory of derivatives and a mathematical toolkit to analyse standard instruments and "dissect" exotic ones.

#### MFFM 7070 Quantitative Methods (3,3,0)

Statistical concepts and simulation methods are introduced. Use statistics and simulation software as a computational aid to carry out the computation. The students will learn how to organize and analyse data with the guidance of statistical concepts and methods. This module also introduces the ideas on how to choose appropriate statistical and simulation methods to deal with the finance problems of interest.

# MFFM 7080 Fixed Income Markets (3,3,0)

Provides a quantitative approach to fixed income instrument use. Covers the mathematics of bond pricing, term structure analysis, and pricing of credit risk. Trees and Monte Carlo methods of valuation are presented.

### MFFM 7090 Foundations of Finance (3,3,0)

Study of financial decision-making processes within a firm. Emphasis on applications and strategic planning in investment, financing, dividend, and working capital decisions. The course also covers market microstructure, including participants, exchange structure, trading platforms, and liquidity and volatility issues related to exchange and off-exchange trading.

#### MFFM 7100 Risk Management (3,3,0)

Risk managers have to determine which risk a firm is exposed to, and must choose which risk to keep, which to shed, and which to hedge. The emphasis of this course is on state-of-the-art risk management practices. This course will introduce the different risk sources which are quantified and managed by financial institutions. Topics covered will include market risk,

credit risk and operational risk. Special attention is also paid to the various products in the financial markets with emphasis on their valuations and models. The course will also cover some case studies that help to understand the financial crisis.

#### MFFM 7110 Financial Data Modelling (3,3,0)

Study of financial tools in swaps and volatitity trading using nonlinear instruments and engineering convexity. The course also covers event correlation and correlation trading strategies.

# MFFM 7120 Investments and Portfolio Management (3,3,0)

The course provides an introduction to security analysis and portfolio management. The focus is placed on the financial theory and analytical tools for making investment decisions. The course covers a broad range of topics including the financial markets and instruments, portfolio theory and asset allocation, the capital asset pricing model, multifactor pricing model and their applications, market efficiency and behavioural finance, stock valuation techniques, performance evaluation and portfolio management.

# MFFM 7130 Legal, Regulatory and Ethical Aspects (3,3,0) of Financial Engineering

Coverage of the legal, regulatory and compliance aspects of derivative use and the current legal standing of derivatives and regulatory issues associated with derivatives. The issues of risk measurement, risk oversight, and transparency of derivatives markets and disclosure issues are covered.

#### MGNT 7080 Managing People in the Public Sector (3,3,0)

Public personnel management is widely recognized as a critical element of democratic society and effective public administration of a given city. Today, government and non-profit organizations are confronted with tighter budgets with limited funding and keener competition in the labour market. Recent changes in information technology, communication patterns, social issues, and demographic compositions have resulted in an increasingly use of privatization of some services such as outsourcing, franchise agreements, vouchers, and contracting. This course introduces to students, in addition to all relevant HRM issues and functions, major organizational behaviour theories and concepts.

# MGNT 7090 Strategic Management and Business (3,3,0) Policy

Strategic Management is a big picture course that builds upon diverse business fields such as management, economics, marketing, finance, and accounting, among others. This course deals with an organization's overall postures from both inside and outside. It provides students with an integrative learning experience by applying what they have learned in their separate functional courses. The purpose is to help students develop strategic management knowledge and skills, gain experience in using the tools for strategic analysis, and apply the concepts to the real world situation. The case analysis is used extensively, and the focus is on how media companies and obtain a substainable competitive advantage.

# MGNT 7110 Board Process and Risk Management (4,4,0)

The board of directors generally perform two major functions: The first is to make strategic decisions, such as setting their firm's long-term strategy and making investment and finance decisions. The second function is the monitoring functions, such as appointment of top-level executives, determining their compensation schemes, replacing them if they perform unsatisfactorily, and monitoring capital allocation decisions, and also risk management. The effectiveness of directors to execute these functions depends, to a large extent, on the board structure and how these directors carry out their duties.

This course aims to enable students to understand the nature, functions and operations of a board of directors. Since these features may vary depending on the board systems adopted, this

course also discusses the major board of directors systems around the world. Board process and structure discussed in this course include the role of independent non-executive directors, and the formation and composition of various committees such as audit committee, remuneration committee, nomination committee, etc. The roles of the board in risk management, strategic management and leadership are also discussed. The course further identifies the major board processes that affect the effectiveness of a board.

#### MGNT 7170 Change Management (3,3

Students will learn about issues that deal with corporate restructuring due to mergers, acquisitions, downsizing, outsourcing and ethical concerns. They will also acquire skills in organizational change, in working with external consultants and in developing desirable work cultures. At the core of any major change programme is the process of strategic human capital formation. In fact, in a period of major change there is even more likely to be an explicit process of strategy formation that requires careful diagnosis. This course focuses on this diagnostic function, with the view to creating organization-wide change initiatives relevant to Asia.

# MGNT 7200 Degree Project: Creating and (3,3,0) Sustaining the Knowledge-based Organization

This final topic will focus all previous studies into a concrete plan to create viable learning organizations, capable of sustained innovation and adaptation necessary to compete successfully, not only within the Asia/Pacific region, but in a globalized environment. Here, students will be exposed to advanced concepts of strategic and operational organizational management, combined with HR projects that advocate constant renewal of human capital and employee involvement. While other courses have provided the necessary background, this capstone course will allow the students to develop the holistic outlook necessary to implement these concepts in pragmatic settings and to deal with current issues, within an action research setting.

### MGNT 7230 Managing People (3,3,0)

For most students, this course will be very different from any that they have taken before. The emphasis will be on developing an awareness of their own skills of managing people and systematically working through a number of readings, cases, and exercises that will lead them to become more effective. The class is highly interactive and intensive, and students will work on an individual project to document skill improvement at their current level of competence in managing people to achieve results.

# MGNT 7240 Strategic Management (3,3,0) (P)

Strategic Management is a big picture course that builds upon diverse business fields such as management, economics, marketing, finance, accounting, among others. This course deals with an organization's overall postures from both inside and outside. It provides students with an integrative learning experience by applying what they have learned in their separate functional courses. The purpose is to help students develop strategic management knowledge and skills, gain experience in using the tools for strategic analysis, and apply the concepts to the real world situation.

# MGNT 7250 Leadership and Organizational (3,3,0) (P) Development

Due to constant changes in the market, a corporation often needs to restructure itself in order to remain its own compatibility and success. At the same time, the corporate leader has a vital role in developing the organization to its next level of success. Leadership is a process of influence in which one enlists the assistance and support of others in achieving a planned goal. Thus, for a company to successfully implement any organizational change initiative, it is a must that effective leadership is developed and in place in order to get the job done. This course helps to increase the knowledge of the students on how leadership can be developed and its role in organizational development. The first part of this course includes various leadership theories approaches,