

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

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 Medicine (3,3,0) (P)

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 Traumatology of Chinese Medicine (4,3,0) (P)

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 Applications of Orthopaedics and Traumatology and Tui Na (5,*,0)

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 Industry for Chinese Medicines (2,0,0) (P)

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 Stochastic Processes (3,3,0)

Topics from conditional expectations, Markov chains, 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,