Finally some interdisciplinary techniques and applications related to optimization will be discussed.

MATH 7060 Complexity of Numerical Problems (3,3,0)
Prerequisite: Postgraduate standing or consent of instructor
This course is concerned with a branch of complexity theory, the information based complexity theory. It studies the intrinsic complexity of numerical problems, that means, the minimum effort required for the approximate solution of a given problem up to a given error. Based on a precise theoretical foundation, lower bounds are established, i.e. bounds which hold for all algorithms. We also study the optimality of known algorithms, and describe ways to develop new algorithms if the known ones are not optimal.

MATH 7070 Pseudospectral Methods and Radial Basis Functions (3,3,0)
Prerequisite: Postgraduate standing or consent of instructor
Spectral methods and radial basis function methods are two modern numerical techniques which have been studied extensively by scientists and engineers in the past two decades. There exist many differences between the modern numerical methods and the classical approaches such as finite element and finite difference methods. 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 7080 Probability and Stochastic Processes (3,3,0)
Prerequisite: Postgraduate standing or consent of instructor
This course provides the elements of the modern theory of stochastic processes. Stochastic processes and probability theory in its modern form have found wide application in the natural sciences, engineering and the finance sector. Emphasis is placed on probabilistic thinking, and applications will demonstrate the introduced concepts throughout.

MATH 7090 Advanced Numerical Methods and Algorithms (3,3,0)
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 Differential and Volterra Functional Equations (3,3,0)
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 Support (2,2,0)
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.