POSTGRADUATE PROSPECTUS

Department of Systems Engineering and Engineering Management
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Message from Head of Graduate Division

Postgraduate education lays the cornerstone for both personal and societal success. Our Graduate Division contributes to the mission of boosting Hong Kong’s competitive edge in both fundamental and applied research by offering a wide spectrum of programmes to educate and train a distinguished cadre of academic and technology leaders in the 21st century.

Established in 1991, the Department of Systems Engineering and Engineering Management Department (SEEM) at The Chinese University of Hong Kong is the first of its kind in tertiary educational institutes in Hong Kong. In contrast to the traditional engineering disciplines that focus on product manufacturing, SEEM emphasises the engineering of decisions and solutions. Centering on four focal areas: Engineering Management, Financial Engineering, Information Systems and Operations Research, the Graduate Division's education and research programmes embrace new technologies and interdisciplinary possibilities. Underlying all these is the common theme of developing and applying engineering and information technologies to decision-making and problem-solving in complex systems such as business industry and the public sector.

The Division currently offers programmes leading to degrees of Master of Philosophy (M.Phil.), Doctor of Philosophy (Ph.D.), Master of Science (M.Sc.) in Systems Engineering and Engineering Management, Master of Science (M.Sc.) in E-Commerce and Logistics Technologies, and Executive Master of Science (E.M.Sc.) in Logistics and Supply Chain Management. Both the M.Phil. and the PhD programmes are research-oriented while the M.Sc. programmes are course-based. Starting from 2004/05, exceptional candidates with bachelor degree may apply directly for the PhD programme. The Division takes pride in upholding a top-notch selectivity in its postgraduate admissions as well as in maintaining a high standard of training. This is made possible by virtue of a host of young, energetic and dynamic faculty members working on innovative and cutting-edge research projects. Together with various types of support ranging from international conference grants, word-class visitor programmes, to high-end computing facilities, our students are exposed to the frontlines of their respective fields. As a result, our (SEEM) graduates are highly competitive.

The M.Sc. programme in SEEM is a taught programme incepted in 1997. It is designed to offer a well-rounded education to engineering professionals who aspire to take up more management responsibilities, as well as to management professionals who wish to acquire the latest engineering technologies. Over the years this programme has established reputation and gained popularity in the community, and has been attracting high quality students among a competitive pool of applicants. The M.Sc. programme in E-Commerce and Logistics Technologies was established in 2000, first as a part-time taguht master degree programme offered at the engineering faculty of the University. Since 2007, the programme has been under the management of the Division of Systems Engineering and Engineering Management. The other E.M.Sc. programme in Logistics and Supply Chain Management was launched in 2003. This is a unique programme collaborated with Tsinghua University, aiming at students in the Pearl Delta Region.

To know more about our Division, I invite you to find more information in the following pages. I welcome you to join our family to strive for academic excellence of international standard.
The Faculty

The Department has a highly qualified faculty, all with Ph.D. degrees from well-renowned universities, and provides a very stimulating intellectual environment with close faculty-student interactions.

MENG, Mei-Ling, Helen
蒙美玲
S.B., S.M., Ph.D.
(Massachusetts Institute of Technology)
Chairman and Professor
Research Interests: Multilingual Speech and Language Processing, Multibiometric Authentication, Multimedia Content Retrieval, Multimodal Human-Computer Interactions

CHEN, Nan
陳南
B.Sc., M.Sc. (Peking University)
M.Phil., Ph.D. (Columbia University)
Associate Professor
Research Interests: Financial Engineering, Monte Carlo Simulation, Applied Probability

CHENG, Hong
程鴻
B.S. (Zhejiang University)
M.Phil. (The Hong Kong University of Science and Technology), Ph.D. (University of Illinois at Urbana-Champaign)
Assistant Professor
Research Interests: Graph Mining and Query Processing, Social Network Analysis, Data Mining for Software Reliability

CAI, Xiaoqiang
蔡小強
B.Eng. (Harbin Shipbuilding Engineering Institute)
M.Eng., Engineer (Tsinghua University)
Professor
Research Interests: Logistics and Supply Chain Management, New Scheduling Models and Applications, Portfolio Optimization

CHENG, Chun Hung
鄭進雄
B.Sc. (The Chinese University of Hong Kong)
M.Sc., M.B.A., Ph.D. (University of Iowa)
Associate Professor

LAM, Kai Pui
林啟沛
B.Sc. (University of Hong Kong)
M.Phil. (The Chinese University of Hong Kong)
D.Phil. (Oxford University)
Professor
LAM, Wai
林偉
B.Sc., M.Phil. (The Chinese University of Hong Kong)
Ph.D. (University of Waterloo)
Professor
Research Interests: Text Mining and Machine Learning, Intelligent Information Retrieval, Web Mining, Reasoning under Uncertainty

LI, Linfei
李凌飛
B.S. (Peking University)
M.S., Ph.D. (Northwestern University)
Assistant Professor
Research Interests: Financial Engineering, Mathematical and Computational Finance, Applied Probability

YU, Xu, Jeffrey
于旭
B.E., M.E., Ph.D. (University of Tsukuba)
Division Head and Professor
Research Interests: Keyword Search in Databases, Graph Database, XML Database, Graph Mining, Web-Technology, Query Processing and Query Optimization

LEUNG, Janny M.Y.
梁美兒
S.B. (Radcliffe College, Harvard University)
B.A. (Oxford University)
Ph.D. (Massachusetts Institute of Technology)
Professor
Research Interests: Combinatorial Optimization / Integer Programming, Transportation Logistics, Operations Management

SO, Man-Cho, Anthony
蘇文藻
B.S.E. (Princeton University)
M.Sc., Ph.D. (Stanford University)
Assistant Professor
Research Interests: Algorithm Design, Algorithmic Game Theory, Optimization

ZHOU Xiang, Sean
周翔
B.S. (Zhejiang University)
M.Sc., Ph.D. (North Carolina State University)
Associate Professor
Research Interests: Stochastic Models, Inventory Management, Supply Chain Management, Sustainable Operations

LI, Duan
李端
B.Sc. (Fudan University)
M.E. (Shanghai Jiaotong University)
Ph.D. (Case Western Reserve University)
Patrick Huen Wing Ming Professor of Systems Engineering and Engineering Management
Research Interests: Optimization and Control, Financial Engineering, Decision Methodology and Risk Management

WONG, Kam Fai
黃錦輝
B.Sc., Ph.D. (Edinburgh University)
Professor
Research Interests: Chinese Information Processing, Databases, Information Retrieval

ZHOU Xunyu
周迅宇
B.Sc., Ph.D. (Fudan University)
Fellow IEEE
Professor of Systems Engineering and Engineering Management
Research Interests: Mathematical Finance / Financial Engineering, Stochastic Analysis, Stochastic Optimal Control
Accolades

Our faculty members are leaders in their respective fields. In recognition of their leadership and contributions to research and innovations, they are invited or elected to serve as editors of top-tier professional journals, including:

- ACM Transactions on Asian Language Information Processing
- Computer Speech and Language
- Computers & Operations Research
- EURO Journal on Computational Optimization
- EURO Journal on Transportation and Logistics
- IEEE Transactions on Audio, Speech and Language Processing
- IEEE Transactions on Automatic Control
- IEEE Transactions on Knowledge and Data Engineering
- IEEE Transactions on Signal Processing
- IIE Transactions on Operations Engineering
- IIE Transactions on Scheduling and Logistics
- Information and Decision Technologies
- International Journal of Computational Linguistics and Chinese Language Processing
- International Journal of Cooperative Information Systems
- International Journal on Computational Linguistics
- International Journal on Computer Processing of Oriental Languages
- Journal of Computing Science and Engineering
- Journal of Global Optimization
- Journal of Information Processing
- Journal of Scheduling
- Journal on Distributed and Parallel Databases
- Journal on Health Information Science and Systems
- Mathematical Finance
- Mathematics of Operations Research
- Naval Research Logistics
- Operations Research
- Optimization Methods and Software
- Quantitative Finance
- Reliability Engineering and System Safety
- SIAM Journal on Control and Optimization
- SIAM Journal on Financial Mathematics
- Speech Communication
- The VLDB Journal
- Transportation Science
- World Wide Web Journal
Our programmes are led by a team of active, energetic and dynamic faculty members. Research outputs from our faculty and students have also won numerous international and regional awards and honours, including:

- Alexander von Humboldt Research Fellowship 1993
- Best Oral Paper Award in the Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2010
- Best Paper of the 10th Asia Pacific Web Conference (APWeb'08) 2008
- Best Paper of the 15th International Conference on Database Systems for Advanced Applications (DASFAA'10) 2010
- Best Paper of the 19th Australasian Database Conference (ADC'08) 2008
- Best Paper of the 21th Australasian Database Conference (ADC'10) 2010
- Croucher Senior Research Fellowship 2005
- Fellow of IEEE
- Inaugural Distinguished Lecturer of APSIPA (Asia-Pacific Signal and Information Processing Association) 2012-2014
- INFORMS Meritorious Service Award 2001
- INFORMS Optimization Society Young Researcher Prize 2010
- Ministry of Education of China (MoE) Technological Advancement Award 2009
- Shenzhen Municipal Government “Peng Cheng” Visiting Professorship 2010 - Present
- SIAM Outstanding Paper Prize 2003
- Yahiko Kambayashi Best Paper Award of the 8th International Conference on Web Information Systems Engineering (WISE’07) 2007

Our faculty members have been active in serving societal roles that are related to their expertise:

- Chinese Language Interface Advisory Committee, appointed by the Deputy Government Chief Information Officer
- Council, Hong Kong Productivity Council, appointed by the Secretary for Commerce and Economic Development
- Council, The Open University of Hong Kong
- Digital 21 Strategy Advisory Committee, appointed by the Secretary for Commerce, Industry and Technology
- Engineering Panel Member, Research Grants Council
- IEEE Speech and Language Technical Committee
- Joint Committee on Information Technology for the Social Welfare Sector, appointed by the Director of Social Welfare
- Member of the Research Grants Council, The Hong Kong SAR Government
- Panel of Assessors, The Innovation and Technology Support Programme, appointed by the Commissioner of Innovation and Technology
- Panel of Assessors, The Small Entrepreneur Research Assistance Programme, appointed by the Commissioner of Innovation and Technology
- President, Hong Kong Information Technology Joint Council
- Review Panel, National Centres of Competence in Research, Swiss National Science Foundation
- Review Panel, National Natural Science Foundation of China
- Review Panel, Natural Sciences and Engineering Research Council of Canada
- Review Panel, Swedish Research Council European Research Infrastructure Initiative
- Task Force on Facilitating the Adoption of Wireless and Mobile Services and Technology (FAWMST), appointed by the Government Chief Information Officer
- Technology Consultant, Technology Services Division, The Hong Kong SAR Government
- The Central Committee on Information Technology for Rehabilitation Services, appointed by the Director of Social Welfare
Our students are a new generation of engineers who can solve real-world problems in innovative ways. They have received a variety of awards and recognitions from many international associations and competitions.

- Best Poster Award of the 9th ACM-HK Student Research and Career Day 2009
- Best Student Paper Award in the 5th Beijing-Hong Kong International Doctoral Forum 2010
- Best Student Paper Award in the 6th Beijing-Hong Kong International Doctoral Forum 2011
- Challenge Cup Prizes, over three years
- Global Scholarship Programme for Research Excellence - CNOOC Grants 2012
- Microsoft Imagine Cup Hong Kong Championship 2004
- Microsoft Research Asia Fellowship, multiple years
- Second-Place Prize of Best Student Research Paper Award Competition of Financial Service Session, INFORMS 2010
- 兩岸四地大學生創業計劃大賽二等獎 2012
- 實時真錢港股投資比賽冠軍 2012
- 中國青少年科技創新獎 2009
- 期望杯高校期貨論文大獎賽一等獎 2011
Research Activities

Financial Engineering

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<td>High Frequency Trading</td>
<td>N. Chen</td>
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<td>Index Tracking with Stochastic Linear Quadratic Controls Using Semidefinite Programming</td>
<td>D.D. Yao, S. Zhang and X.Y. Zhou</td>
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<td>Knowledge-Based Chaotic Prediction for Financial Engineering Applications</td>
<td>K.P. Lam</td>
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<td>Mining Streams of Financial Data and News</td>
<td>J. Yu</td>
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<tr>
<td>Revised Dynamic Mean-Variance Portfolio Selection</td>
<td>D. Li</td>
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<td>Spectral Methods for Optimal Decision and First Passage Problems</td>
<td>Lingfei Li</td>
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<td>Time Consistency Issue in Financial Optimization</td>
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Information Systems

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<td>AICAMS Prototype Development</td>
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<td>An Inference Network for Knowledge Representation and Reasoning</td>
<td>K.P. Lam and W. Lam</td>
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<td>Audio Search Engines</td>
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<td>Automatic Text Categorization and Classification</td>
<td>W. Lam</td>
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<td>Bi-directional English-Chinese Machine Translation</td>
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<td>Computer-Aided Second Language Learning through Speech-based Human-Computer Interactions</td>
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<td>Digital Library and Next Generation Internet</td>
<td>J. Yu, C.C. Yang and W. Lam</td>
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<td>Highly Natural Chinese Speech Synthesis with a Talking Head</td>
<td>H. Meng</td>
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<td>Information Mining and Discovery from Text Data</td>
<td>W. Lam</td>
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<td>Integration of Classification and Pattern Mining: A Discriminative and Frequent Pattern-based Approach</td>
<td>H. Cheng</td>
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<td>Multi-modal and Trilingual Spoken Dialog Systems</td>
<td>H. Meng</td>
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<td>Network Informal Language Processing</td>
<td>K.F. Wong</td>
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<td>Querying Large Evolving Graphs</td>
<td>J. Yu</td>
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<td>Self-tuning Neural Control Systems and their VLSI Implementation</td>
<td>K.P. Lam and C.S. Poon</td>
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<td>Temporal Information Extraction and Processing</td>
<td>K.F. Wong</td>
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<td>XML for Chinese News Information Processing</td>
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## Supply Chain Management

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<tr>
<td>Coordinated Decisions of Manufacturer / Distributor in a Fresh Product Supply Chain Involving Long Distance Transportation</td>
<td>X. Cai and Gang Yu</td>
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<td>Inventory Management of Hybrid Remanufacturing / Manufacturing Systems with Multiple Types of Return Products</td>
<td>S.X. Zhou</td>
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<td>Inventory-Procurement Models in the Presence of Commodity Spot Markets and Hedging Instruments</td>
<td>F.Y. Chen and S.X. Zhou</td>
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<td>Manpower Planning and Scheduling with Workforce Flexibility</td>
<td>J. Leung</td>
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<td>Multi-Echelon Stochastic Inventory Systems: Optimality, Optimization, Bounds and Heuristics</td>
<td>S.X. Zhou</td>
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<td>Pricing, Production and Delivery Decisions, and Cooperative Strategies in a Supply Chain with Products of Time-Varying Values</td>
<td>X. Cai and J. Chen</td>
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<td>The Dynamics of Layout in a Crossdock</td>
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<td>Understanding ERP System Adoption from a User’s Perspective</td>
<td>C.H. Cheng, W.M. Cheung, and J. Yeung</td>
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## Operations Research

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<td>Efficient Sampling-Based Algorithms for Stochastic Optimization</td>
<td>A.M.-C. So</td>
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<td>Hidden Convexity</td>
<td>D. Li</td>
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<td>New Models in Capacitated Lot Sizing Decisions</td>
<td>C.H. Cheng</td>
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<td>New Scheduling Models with Applications to Berth Allocation</td>
<td>X. Cai and C.Y. Lee</td>
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<td>Nonconvex Optimization and Global Optimization</td>
<td>D. Li and C. K. Ng</td>
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<td>Nonlinear Integer Programming</td>
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<tr>
<td>Scheduling with Negotiable Third-Party Machines</td>
<td>X. Cai, C.Y. Lee, and George Vairakarakis</td>
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<td>Scheduling of Perishable Jobs under Uncertain Deadlines</td>
<td>X. Cai and X. Zhou</td>
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<td>Solutions to Diophantine Equations</td>
<td>D. Li</td>
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<tr>
<td>Theory and Applications of Chance Constrained Optimization</td>
<td>A.M.-C. So</td>
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<tr>
<td>Theory of Semidefinite Programming for the Graph Realization Problem</td>
<td>A.M.-C. So</td>
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<td>U-OPT Production Line</td>
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## Service Engineering Management

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<th>Topic</th>
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<tr>
<td>Financial Digital Library</td>
<td>J. Yu, C.C. Yang and W. Lam</td>
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<tr>
<td>Integration of OLAP and Multidimensional Inter Transaction Mining</td>
<td>J. Yu</td>
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<tr>
<td>Internet Privacy and Security Issues</td>
<td>C.H. Cheng</td>
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<tr>
<td>Knowledge Discovery</td>
<td>W. Lam, H. Meng and J. Yu</td>
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<tr>
<td>Reinforcement Learning Architecture Using FPGA</td>
<td>K.P. Lam</td>
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<tr>
<td>Integration of Emissions Management and Supply Chain Optimization</td>
<td>S.X. Zhou</td>
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<tr>
<td>Inventory Management for Spare Parts Supply Chains: Solutions and Implementations</td>
<td>S.X. Zhou</td>
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M.Phil.-Ph.D. in Systems Engineering and Engineering Management

Admission Criteria
The Ph.D. programme in SEEM normally requires the candidate to hold a research-based Master degree in engineering, applied mathematics, computer science, or related areas. The M.Phil. programme in SEEM normally requires the applicant to hold a bachelor degree in engineering, applied mathematics, computer science, or related areas. Exceptional candidates with bachelor degree may apply directly to the Ph.D. Programme.

Applicants must meet the general qualification required for admission to the Graduate School http://www2.cuhk.edu.hk/gss/entry.php

All applicants must also fulfil the “English Language Proficiency Requirement” as stipulated by the Graduate School before being considered for admission. Please refer to the “Postgraduate Prospectus” of the Chinese University of Hong Kong for details. More information can be found from the Admission Online of CUHK: http://www.cuhk.edu.hk/gss

Fields of Specialisation
- Decision Support Systems / Management Information Systems
- Engineering Management
- Financial Engineering
- Information Systems / Database Systems
- Logistics and Supply Chain Management
- Machine intelligence and Applications
- Management of Information Technology
- Operations Research / Optimization
- Resource Planning and Management
- Systems and Control
Curriculum

M.Phil. Stream

Course Requirements

Lecture Courses
Each M.Phil. student is required to complete at least 4 graduate courses with a total 12 units, subject to the approval of his/her supervisor and the Division Head. Undergraduate courses (Coded 4000 or below) cannot be used to fulfil this requirement.

Thesis Research Courses
Each M.Phil. student must register for the relevant Thesis Research course in every term throughout his/her study period.

Other Courses or Requirements
Each M.Phil. student must complete the seminar courses in his/her first year of study. In addition, each M.Phil. student is required to give an oral presentation on his/her research progress each year before his/her Thesis Advisory Committee and submit written annual research reports during his/her normative period of study.

Thesis and Oral Defence
Each M.Phil. student is required to submit a thesis and pass the oral defence of the thesis for graduation.

Ph.D. Stream

Pre-candidacy

Lecture Requirements

Lecture Courses
Each Ph.D. student is required to complete at least 4 graduate courses with a total of 12 units during the pre-candidacy stage, subject to the approval of his/her supervisor and the Division Head. Undergraduate courses (Coded 4000 or below) cannot be used to fulfil this requirement.

Thesis Research Courses
Each Ph.D. student must register for the relevant Thesis Research course every term throughout his/her study period.

Candidacy Examination
Each Ph.D. student is required to pass a written candidacy examination within the maximum period of his/her pre-candidacy stage for the advancement to his/her post-candidacy stage. The purpose of this examination is to test the student's basic knowledge and understanding of the SEEM discipline.

Other Courses or Requirements
Each Ph.D. student is required to give an oral presentation on his/her research progress each year before his/her Thesis Advisory Committee and submit annual research reports during his/her normative period of study.

Thesis Proposal and Oral Defence
Each Ph.D. student is required to submit a written thesis proposal and pass the oral defence of the proposal within the maximum period of his/her pre-candidacy stage.

Post-candidacy

Lecture Courses
Each student is required to complete at least 1 graduate course with a total of 3 units during the post-candidacy stage, subject to the approval of his/her supervisor and the Division Head. Undergraduate courses (Coded 4000 or below) cannot be used to fulfil this requirement. With the approval of the Division, a student may choose to complete this course requirement during his/her pre-candidacy stage.

Thesis Research Courses
Each student must register for a Thesis Research course every term throughout his/her study period.

Other Course Requirements
Each Ph.D. student is required to give an oral presentation on his/her research progress each year before his/her Thesis Advisory Committee and submit annual research reports during his/her normative period of study.

Thesis and Oral Defence
Each student is required to submit a thesis and pass the oral defence of the thesis for graduation.
The courses offered for M.Phil.-Ph.D. Programme are grouped under 4 areas.

Area I: Operations Research

SEEM 5410
Optimal Control

SEEM 5510
System Simulation

SEEM 5520
Optimization I
The course covers the underlying theory and fundamental solution methodologies of mathematical programming: linear programming, unconstrained and constrained non-linear optimization. Topics include optimality conditions, search methods, descent methods, Lagrange multipliers, penalty functions. Developments of duality theory are presented. Concepts and issues in global optimization and multi-objective optimization are introduced. Applications are drawn from engineering and financial optimization.

SEEM 5540
Optimization II
The first part of this course covers underlying theory and fundamental solution methodologies of integer programming: optimality, relaxation, and bounds, complexity and problem reductions, branch and bound, cutting plane algorithms, strong valid inequalities and duality theory. The second part of this course covers some of the recent developments in mathematical programming: Interior point methodology, conic optimization and semidefinite programming. Various applications in engineering, management, and financial economics are discussed.

SEEM 5580
Advanced Stochastic Models

SEEM 5600
Conic Optimization and Applications
This course covers various topics in conic optimization, including Semidefinite Programming (SDP). In particular, we discuss theoretical properties of conic optimization models, and we introduce solution methods for solving such models. Emphasis will then be placed on the applications of conic optimization in engineering.

SEEM 5650
Integer Programming
The course discusses underlying theory and fundamental solution methodologies for linear and nonlinear integer programming. Theoretical topics include general solution concepts such as relaxation, partition and bounds, submodularity, and duality theory. Solution methods cover partial enumeration methods, dynamic programming methods, branch and bound methods, cutting plane methods, convergent Lagrangian dual methods, convexification methods and global descent methods. These methods can be applied to solve separable/non-separable and convex/non-convex integer programming problems, including nonlinear knapsack problems, quadratic integer programming, and zero-one polynomial integer programming. The course also discusses various applications of integer programming in engineering, management and finance.
supply chain and service, operations management will be discussed.

Area II: Information Systems

SEEM 5010
Advanced Database and Information Systems
Database and information system design and control: advanced data structures, query optimization, recovery, concurrency control, deadlock resolution and recovery. Distributed system environment. Object-oriented approach. Engineering application: requirements and proposed solutions. Current topics.

SEEM 5460
Information Systems Engineering
Review of information systems development, systems project planning and control, and other related managerial issues. Information systems engineering economics. Quantitative analysis of systems development. Systems cost and effectiveness analysis. Design principles and methodology for management information systems, decision support systems, real-time systems, and unsurveyable systems.

SEEM 5470
Knowledge Systems

SEEM 5530
Client/Server Systems Engineering
Issues in building client/server information systems. Concept, implementation, and management aspects in the development cycle of client/server systems. Advanced technology such as distributed objects, CORBA and COM+, component technology, client/server system management.

SEEM 5560
E-Commerce Systems
This course introduces some basic principles of information technologies/systems management, business models and strategies for e-commerce. We will cover technologies and infrastructure required to support electronic commerce, for example, open systems, client/server computing, intelligent agents, knowledge extraction and data mining, middleware and plug-ins, etc. Other important topics, such as electronic payment and internet security, will also be covered.
Course Descriptions

SEEM 5430  
Optimal Production Planning  

SEEM 5480  
Engineering Management Strategy  
The course introduces students to the basics of strategic management. All aspects of strategic planning tools and

Area III: Engineering Management

SEEM 5420  
Scheduling and Sequencing  

SEEM 5640  
Human-Computer Spoken Language Systems  
Principles and theories underlying the design and implementation of human-computer spoken language systems. Component technologies including multilingual speech recognition, natural language understanding, dialog modelling, speech synthesis. Related topics including acoustic-phonetics in conversational speech. Linguistic features of spoken language, digital signal processing, pattern recognition, machine learning, statistical modelling and artificial intelligence. Software architectures that integrate the various component technologies. Examples of real applications. Students are advised to do ELE3410 before taking this course.

SEEM 5680  
Text Mining Models and Application  
This course covers basic mining models that are able to discover useful patterns and knowledge from text data. The form of text data ranges from semi-structured representation to free natural language texts. It discusses retrieval models as well as learning models based on user feedback. It also covers advanced models including language modelling, automatic entity extraction, and machine learning models suitable for text. Text mining applications such as knowledge management are presented.
techniques, strategy formulation and decision making, and implementation and control are covered. Topics include SWOT analysis, forecasting models, decision methodology, project planning, implementation, and evaluation, team building and communication. Integration of business function such as finance, human resources, marketing, and production and operations is emphasised.

SEEM 5600
Logistics and Transportation Planning

SEEM 5610
Inventory and Supply Chain Management

SEEM 5630
Stochastic Inventory and Revenue Management
This course is to equip students with the skills that enable them to formulate and analyse stochastic inventory and revenue management models. The fundamental concepts, methods, and results are presented, with an emphasis on the foundation of dynamic optimization. The topics in inventory management include the classical \([r,Q]/[s,S]\) models, and multi-echelon systems, and those in revenue management include dynamic pricing and booking controls and choice models.

Area IV: Financial Engineering

SEEM 5550
Computational Intelligence in Financial Information Systems

SEEM 5570
Numerical Methods in Finance
This course emphasises the use of numerical methods for solving financial problems. The numerical methods include: binomial trees, Monte Carlo simulation, stochastic programming, linear/quadratic control models and semidefinite programming techniques. Those techniques will be applied, among other things, to option pricing, index tracking, portfolio optimization, interest rate models, and asset/liability management.

SEEM 5590
Financial Decision Models

SEEM 5620
Data Warehousing for Financial Engineering
This course addresses the data and decision aspects of financial information systems. The data aspects includes collection, cleansing, storage, and retrieval of quantitative and qualitative financial data. The decision aspects include on-line analytical processing on financial data and data mining for nontrivial data pattern and knowledge.

SEEM 5670
Advanced Models in Financial Engineering
This course covers various applications of engineering technicalities in financial modelling. Emphasis will be on two main topics: investment portfolio optimization and financial derivative pricing. We introduce dynamic programming approach, martingale and PDE numerical solutions, Monte Carlo simulation methods for solving these two problems.
SEEM 5060
Intelligent Control Systems
Conventional adaptive and self-running controllers; the use of AI concepts in expert control; fuzzy control; neurocontrol using connectionist networks; applications in manufacturing; process control, robotics and automation.

SEEM 5080
Architectures for Learning Systems
Symbolic methods used in conventional AI: knowledge representation, search strategies, inference mechanisms in expert system shells. Neural network methods: system identification and pattern recognition issues, basic paradigms and their promises and limitations. Unified approaches using both symbolic and neural network methods. Implementation issues using microcomputers in specific application domains, e.g., adaptive control and microprocessor systems.

SEEM 5120
Advanced Topics in SE&EM[I]
This course is designed to investigate and to discuss selected advance topics of current interest in Systems Engineering and Engineering Management.

SEEM 5121
Advanced Topics in SE&EM[II]
This course is designed to investigate and to discuss selected advanced topics of current interest in Systems Engineering and Engineering Management.

SEEM 5130
Advanced Topics in SE&EM[III]
This course is designed to investigate and to discuss selected advanced topics of current interest in Systems Engineering and Engineering Management.

SEEM 5131
Advanced Topics in SE&EM[IV]
This course is designed to investigate and to discuss selected advanced topics of current interest in Systems Engineering and Engineering Management.

SEEM 5440
Selected Topics in Discrete Optimization
Review of classical optimization. NP-hardness and using NP-hardness to analyse discrete optimization problems. Design and analysis of algorithms for easy and hard problems, including dynamic programming with pseudo-polynomial complexity, simulated annealing, fully polynomial approximation schemes, genetic algorithms, and heuristics.

SEEM 5450
Discrete Event Systems
Discrete event systems (DESs) modelling, manufacturing systems, computer networks and air-traffic control systems. Methodologies and techniques in analysing, controlling and managing of DESs: discrete event simulation, perturbation analysis, supervisory control and automata, Petri net, max algebra, etc. Prerequisite: SEG3410 or its equivalent.

SEEM 5490
Advanced Engineering Economics
M.Sc. in Systems Engineering and Engineering Management

This programme is offered with the following objectives:
(1) To provide advanced training for engineers and professionals who aspire to take up more management responsibilities in their careers, and
(2) To offer students a well-rounded education through a selected set of courses on state-of-the-art subjects and cutting-edge technologies.

Admission Criteria
An applicant should have:
(1) graduated from a recognised university and obtained a Bachelor’s degree in engineering, science, business administration or related fields, normally with Second Class Honours or higher, or an average grade of B or better in his undergraduate courses; or
(2) completed a course of study in a tertiary educational institution and obtained professional or similar qualifications equivalent to an honours degree in related fields.

Curriculum
Students are required to take a minimum of 8 postgraduate courses (24 credits in total), within a normal period of two years (Part-time mode) or one year (Full-time mode) of which 3 should be required courses and 5 should be electives. An exemption from a required course may be sought provided that the student has sufficient background and knowledge in the required course. The exempted course must be replaced with an approved elective course. Other M.Sc. courses from the Faculty of Engineering may be taken as electives with the approval of the Division Head. The degree of Master of Science will be conferred upon students who have completed the prescribed coursework with a cumulative grade-point average of 2.0 or above.

All applicants must also fulfil the "English Language Proficiency Requirement" as stipulated by Graduate School Secretariat before being considered for admission. Please refer to the "Postgraduate Prospectus" of the Chinese University of Hong Kong for details. Please refer to Admission Online of CUHK for more information: http://www.cuhk.edu.hk/gss.
Course Descriptions

Required Courses

SEEM 5710
Principles of Engineering Management
This course is designed to provide fundamental principles of managing engineering and industrial organisations. The focus is on the application of quantitative and qualitative approaches in the practice of engineering management, quantitative modelling and solution techniques for strategic and operational problems are discussed. The role of strategic management, strategy formulation, and strategy implementation are covered. Other strategic issues involving innovation and ethics are also addressed.

SEEM 5730
Information Technology Management

SEEM 5740
Manufacturing and Service Operations Management
Topics in manufacturing operations management: forecasting, aggregate planning, inventory theory, manufacturing resource planning, Just-In-Time (JIT) production. Topics in service operations management: the framework to analyze service operations, methods for designing, evaluating and delivering services, locating service facilities, allocation of service resources, workforce management and quality management.

SEEM 5780
Quality Assurance and Control

SEEM 5790
Project and Technology Management

SEEM 5800
Logistics Management
SEEM 5880  
Supply Chain Management  
This course introduces the key models and concepts in supply chain management. Topics include: demand forecasting, aggregate planning, supply management, inventory management, matching supply with uncertain demand, information distortion, and demand management, information technologies for supply chain coordination, e-business models, etc.

SEEM 5870  
Open Systems and Electronic Commerce  
Introduction to open system standards and protocols. Transaction protocols. Electronic commerce applications using open system and artificial intelligence technologies. Application of intelligent agents for automated transaction processing. Integration of HTML and JAVA with information and communication systems.

Area III: Financial Engineering

SEEM 5830  
Stochastic Investment Models  
The focus of the course is on various stochastic models that support investment decisions. Overview of investment problems: pricing, hedging, portfolio selection, investment vs. consumption. Asset dynamics, binomial trees, Ito processes. Introduction to option pricing, Black-Scholes formula. Term structure, interest-rate derivatives. Portfolio optimization, optimal control models: Bellman equation and necessary conditions.

SEEM 5840  
Financial Analysis and Security Trading  

SEEM 5850  
Computational Intelligence in Financial Information Systems  

SEEM 5860  
Data Analysis in the Financial Markets  
This course emphasises econometrics modelling and inference techniques. Topics include: OLS, GLS, maximum likelihood estimation, statistical hypothesis testing, GMM, ARFIMA model, GARCH model and Stochastic Volatility model, cointegration, common factors and common features, switching regime model and other nonlinearities, simulation and estimation of continuous diffusion process, the use of S-plus.

Area II: Information Systems

SEEM 5750  
Expert Systems and Decision Support  
Overview of management support systems. Data and model management in decision support systems. Group decision process. Group decision support systems and distributed group decision support system. Executive information and support systems. Applications of artificial intelligence methodologies in decision support. Integration of decision support technologies. Design and development of management support systems. Organisational and societal impacts.
Testimonials

Our Alumni

DENG Ke
2011 M.Sc. in SEEM Graduate
M.Phil. student in Nuclear Energy, University of Cambridge (United Kingdom)

I came to CUHK to study Systems Engineering and Engineering Management after working in a Nuclear Power Technology Research Institute in China. During the period, I participated in several national projects and started to find that project management skills such as project scheduling, budgeting and resource allocation were very essential to engineering professionals. Thus I came up with the idea to study Systems Engineering and Engineering Management in Hong Kong in order to prepare for my future career take-off.

This course provided me with greatly useful mathematical approaches for solving optimization problems in engineering related fields. Besides, in delving into the systematic approaches study in SEEM courses, I found that probability risk analysis is now playing a vital role in evaluating nuclear power safety. And it had become an essential issue of the public after the Fukushima nuclear accident. The knowledge I learned raised my intense interest and impelled me to think more and get a more profound understanding of nuclear energy and energy sector before I went back to work. As a result, I planned to continue my MPhil in Nuclear Energy studies in the University of Cambridge. And thanks to my thorough grounding in engineering aspects of nuclear power and scientific aspects of systems engineering, I luckily won the Cambridge Overseas Trusts & Sun Hung Kai Properties Kwok’s Foundation scholarship to pursue my studies in the UK. So I am very thankful for my study experience in SEEM which was both fruitful and exhilarating, and it also provided me with potential opportunities and inspirations in my future research and study.

JANNUZZI, Dario
2011 M.Sc. in SEEM Graduate
Business Analyst (Geneva, Switzerland)

I enrolled as a full-time student in the SEEM Master’s programme and I am extremely happy about the choice I made.

The SEEM programme enabled me to strengthen my knowledge in Engineering Management, Operations and Logistics and broadened my understanding of Financial Engineering and IT. Courses were taught by extremely well prepared teachers, and tutors were very supportive and active in helping students with internship and job applications.

Last but not least, this experience in Hong Kong literally opened my eyes on the whole APAC region, not only from a business point of view, but also from a social and cultural perspective.
M.Sc. in E-Commerce and Logistics Technologies

The Programme focuses on information and logistics technologies that support Internet business, and aims at training a new generation of talents in both the management and engineering aspects of E-Commerce and Logistics Technologies.

Curriculum

Students are required to take a minimum of 8 postgraduate courses (24 credits in total), of which 4 should be required courses and 4 elective courses. An exemption from a required course may be sought provided that the student has a sufficient background and knowledge in the required course. The exempted course must be replaced with an approved elective course. Other M.Sc. courses from the Faculty of Engineering may be taken as electives with the approval of the Division Head. The degree of Master of Science will be conferred upon students who have completed the prescribed coursework with a cumulative grade-point average of 2.0 or above.

Admission Criteria

An applicant should have:
(1) graduated from a recognised university and obtained a Bachelor's degree in engineering, science, business administration or related fields, normally with Second Class Honours or higher, or an average grade of B or better in his undergraduate courses; or
(2) completed a course of study in a tertiary educational institution and obtained professional or similar qualifications equivalent to an honours degree in related fields.

Applicants must also fulfil the "English Language Proficiency Requirement" as stipulated by Graduate School Secretariat before being considered for admission. Please refer to the "Postgraduate Prospectus" of the Chinese University of Hong Kong for details. Please refer to Admission Online of CUHK for more information: http://www.cuhk.edu.hk/gss
Course Descriptions

Required Courses

ECLT 5710
Fundamentals of E-Commerce Technologies
An overview of the principles of E-Commerce. The origin and growth of E-Commerce. Technologies that support the development of E-Commerce applications. Business models and strategies for E-Commerce. Legal issues related to E-Commerce such as privacy, consumer rights, and intellectual property. Information interchange and application sharing via extensible markup languages and web services to support logistics and operations management.

ECLT 5720
Electronic Payments Systems
This course covers various methods of transferring payments over the Internet and compares their functionality. Topics include electronic money, electronic contracts, micro-payments, authenticity, integrity and reliability of transactions, encryption and digital signature techniques needed to support electronic cash, and technologies available to support secure transactions on the Internet.

ECLT 5730
Logistics Management

ECLT 5740
Cryptography, Information Security and E-Commerce

ECLT 5750
Engineering Economics

Elective Courses

A student should choose at least two courses from each area:

Area I: Internet and Information Systems

ECLT 5740
Cryptography, Information Security and E-Commerce

ECLT 5760
Digital and Mobile Systems
Distributed and Mobile Systems are the key framework for E-Commerce applications. This course covers the principles of distributed systems (including mobile applications) and software, and the engineering mechanisms for their specification, design, deployment, and evaluation. Topics include: architectural models for distributed systems, server techniques, remote procedure call and multicast communication, RFID technology, emerging standard and platforms, distributed transactions, concurrency control, reliability and security issues.

ECLT 5810
E-Commerce Data Mining Techniques
Data mining provides techniques for the analysis, understanding and extraction of useful information from huge databases. These techniques are used in business, finance, medicine and engineering. This course will introduce the techniques used in data-mining for E-Commerce information. Topics will include clustering, classification, estimation, forecasting, statistical analysis and visualization tools.

ECLT 5820
Distributed and Mobile Systems
Distributed and Mobile Systems are the key framework for E-Commerce applications. This course covers the principles of distributed systems (including mobile applications) and software, and the engineering mechanisms for their specification, design, deployment, and evaluation. Topics include: architectural models for distributed systems, server techniques, remote procedure call and multicast communication, RFID technology, emerging standard and platforms, distributed transactions, concurrency control, reliability and security issues.

ECLT 5830
Network and Web Programming
This course addresses the techniques for programming in both low-level (Network) and high-level (Web) of internet. Network programmes include: Client-server system design; interprocess communication; sockets; blocking and nonblocking I/O; multithreaded process; iterative and concurrent server designs; web programming includes: HTML, JAVA, Web page design and construction.

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* Students can take either ECLT 5730 Logistics Management or ECLT 5940 Supply Chain Management as a required course
### ECLT 5840
**Open Systems for E-Commerce**
Introduction to open system standards and protocols. Transaction protocols. Electronic commerce applications using open system and artificial intelligence technologies. Application of intelligent agents for automated transaction processing. Integration of Web programming techniques with information and communication systems. Case studies for E-Commerce open system applications.

### ECLT 5850
**Project I in E-Commerce and Logistics Technologies**
An individual or a team project on E-Commerce and Logistics Technologies.*

### Area II: Enterprise Solutions

### ECLT 5860
**Mobile Commerce and Mobile Logistics**
This course introduces key technologies and applications that support operations of mobile commerce and mobile logistics. Topics include security and communication protocols, mobile payment, location-based technologies and applications, RFID, as well as other new mobile commerce applications and solutions. Managerial issues, such as, regulation frameworks, business model, and revenue model, will also be discussed in this course. Mobile commerce applications that are important to Hong Kong, such as mobile tourism and mobile banking/trading will also be discussed through case studies.

### ECLT 5910
**Information Technology Management**
The challenges, techniques and technologies associated with the management of information technology (IT) for logistics and supply chain operations. The linkage of IT to business models and corporate strategies in logistics and supply chain industry. Information systems and technology planning, sourcing and acquisition, budgeting and deployment. Performance evaluation and audit. Standard, privacy and security policies.

### ECLT 5920
**Decision Methodology with Financial Applications**

### ECLT 5940
**Supply Chain Management**
Management of moving raw materials, in-process inventory, and finished-goods; transferring information and payment. Topics include: electronic information and payment transfer and its impact, distribution, forecasting, inventory management, purchasing and supplier management, ERP systems supply chain integration and strategic partnering, Impacts of E-Commerce in supply chain management.

### ECLT 5950
**Project II in E-Commerce and Logistics Technologies**
An individual or a team project on E-Commerce and Logistics Technologies.*

*Project I and Project II in E-Commerce and Logistics Technologies and designed to allow students to gain first-hand experience in studying and developing real-world systems for E-Commerce. These could be conducted either individually or by team work. It is expected that students will be involved in projects for the industrial "pilot programmes" of the Centre for Logistics Technologies and Supply Chain Optimization (LOGITSCO) at the Faculty of Engineering. Possible projects include, but are not limited to:

- Online Banking and Financial Systems
- Supply Chain Coordination and Synchronization
- Supply Contracting and Information Sharing
- Web-based Forecasting and Pricing
- Electronic Payment Systems
- Internet Shopping
- Virtual Store or Virtual Campus
- Electronic Office
- Open System Technologies
- Intelligent Agent Systems
- Multimedia Information Systems
- Data Mining Applications
- Virtual Reality Applications
- Cryptography Servers
- Security Fire Wall
- Network Management and Quality of Service
- Distributed System Technologies in CORBA or DCOM

*Include in the list of reimbursable courses for CEF.*
LIANG Fang
2011 M.Sc. in ECLT Graduate
Business Analyst in Alekstra Oy (Finland)

The one year study in CUHK is one of the greatest experiences for me. The ECLT programme helped me to find out my interest – that is supply chain management. With so many useful courses offered by SEEM department, I chose the courses such as Supply Chain Management and Data Mining etc. These courses were very useful since they not only gave the general idea about supply chain management and data mining but also the technical tools for implementing them in the really world. These courses equipped me with knowledge hence I have the confidence to take internship in the consulting firm. I am currently taking an internship in a company in Finland. This job involves a lot about data processing and analysis which will also be beneficial to my professional development.

I really appreciate that CUHK has given me so many chances to develop my comprehensive skills.

Therefore, in return, I want to give some suggestions to freshmen:

**Fully use the resource in university.** CU is a great place embraced with so many resources such as CUSIS, Libraries and Workshops. Do remember to check the information regularly through email otherwise you will miss a lot of useful information for self-development.

**Be brave enough to participate.** There will be events, competitions and other activities inviting students to join. Please just sign up and join in! You never know what will happen if you don't participate in. These activities will broaden you horizons and enrich your knowledge in different aspects. You can even make good friends through these activities.

**Choose the courses you are interested in or would be beneficial to you.** Try to listen to all the courses at the very beginning and make careful decision on choosing courses. These courses will influence your career in some ways.

Wish you all the best and enjoy the life in CUHK!
Executive M.Sc. in Logistics and Supply Chain Management

This part-time taught programme is jointly offered with Graduatie School at Shenzhen, Tsinghua University. The objective of the programme is to help local and multinational companies, facing logistics and supply chain issues, develop creative new solutions to improve logistics and supply chain efficiencies and reduce costs by grooming their logistics and supply chain executives.

Admission Criteria
An applicant should have:
(1) graduated from a recognised university and obtained a Bachelor’s degree, normally with honours not lower than Second Class; or
(2) graduated from an honours programme of a recognised university with a Bachelor’s degree, normally achieving an average grade of not lower than "B" in undergraduate courses; or
(3) completed a course of study in a tertiary educational institution and obtained professional or similar qualifications equivalent to an honours degree.

Curriculum
Students are required to complete 16 required courses (24 credits in total). They are assessed on the basis of their performance in course examinations and other assignments. The degree of Master of Science will be conferred upon students who have completed the prescribed coursework with a cumulative grade-point average of 2.0 or above.
Course Descriptions

All are 1.5-unit courses of 21 class hours per course.

LSCM 5701
Essentials of Engineering Management
This course provides fundamental principles of managing engineering and industrial organisations. The focus is on the use of qualitative and quantitative approaches in the practices of engineering management. Quantitative modelling and solution techniques for strategic and operational problems are discussed. Applications in various business functions such as finance, marketing, production, logistics and supply chain management are examined.

LSCM 5702
Strategies in Logistics and Supply Chain Management
The objective of this course is to teach students how to develop a comprehensive supply chain strategy to support overall business strategy. The course examines the role of logistics in a firm's overall strategy and explains how creating a strategic fit between a firm's competitive strategy and its supply chain strategy affects performance. Topics also include industry analysis, strategic positioning and analysis, logistics strategy formation, and performance measures, and benchmarking procedures.

LSCM 5703
Cost and Financial Analysis for Supply Chains
This course introduces costing and financing principles relevant to supply chain management. Topics include performance and profitability measures, activity-based costing, and project evaluation and capital spending. Other issues such as sources of capital, leasing, and mergers and acquisitions may also be addressed.

LSCM 5704
Principles of Engineering Economics
This course is an introduction to the economics theory, essential to understand how individuals and firms behave. Topics include the market force of supply and demand, concepts of costs and choices, profit maximization, concept of equilibrium, and elementary game theory and models.

LSCM 5705
Demand and Customer Relationship Management
This course provides an overview of demand-side management and tools for customer relationship management (CRM). Demand-side management focuses on market research, demand estimation and revenue management. The course also explores the importance of CRM in the Internet era and IT tools for implementation. Topics include principles of marketing, tools for forecasting, and optimization approaches to revenue management.

LSCM 5707
Decision Methodologies
This course explores the fundamentals of decision-making concepts and methodologies. Topics include decision tree and influence diagram, risk preference, utility functions and construction methods, subjective probability and assessment methodologies, Bayesian analysis and information updating, value of information, trade-offs and multiobjective decision-making, and applications to supply chain management and risk management.

LSCM 5708
Supply Chain Coordination and Integration
This course focuses on the coordination and relationship among the links of a supply chain and its interactions with others. Topics include drivers of supply chain performance, bullwhip effect, supply chain collaboration, and incentives for supply chain coordination.

LSCM 5709
Manufacturing Logistics
This course addresses the key drivers of effective management of logistics in manufacturing systems. Topics include the basics of inventory management, inventory risk pooling, various forms of postponement, risk-based production planning, JIT, and push-and-pull production systems.

LSCM 5710
Transportation Logistics
This course addresses the planning, implementation and control of processes involved in the transport and storage of materials from the point of origin (as raw materials) to the point of consumption (as finished goods). Topics include transportation modes, global network design, fleet management, routing and scheduling, goods consolidation and disaggregation, warehouse location and layout. Issues in multi-modal transport and international logistics are also discussed.
LSCM 5712
Game Theory and Applications
This course provides fundamentals of game theory and its application in decision-making. Topics include dominance, Nash equilibrium and static game, non-zero-sum game and applications in bargaining and negotiation, dynamic game in market competition, and applications in bidding and auction, international policy coordination, and strategic trade policy.

LSCM 5714
Practitioner's Workshop
This capstone course is composed of lectures and presentations by experts and practitioners.

LSCM 5715
Field Studies
Through a series of company visits, students will be exposed to different business environments and learn various forms of operations and management.

LSCM 5716
Special Topics in Logistics and Supply Chain Management
This course covers emerging issues in logistics and supply chain management. Topics include: logistics issues in international trade, new ventures and new products, revenue management and reverse logistics.

LSCM 5717
Global Logistics Operations
This course explores current developments in global logistics management. It covers the structure of international trade and transportation, maritime and air transports, air freight operating procedures, and customs. Other topics include strategies for global sourcing, vendor selections, and impact of international trade regulations.

LSCM 5718
Global Logistics Financing
This course introduces fundamentals of financial settlement pertinent to global logistics. It covers the nature of foreign exchange markets, exchange rate risk and its management. Other topics include international financing, insurance and settlement-related documentation.

LSCM 5719
Service Logistics
This course discusses specific features of supply-chain/logistics in services such as perishability, intangibility, and bidirectional supply relationships. Topics include the role of services in an economy, the nature of services: distinctive characteristics of service operations, supply chain and logistics management in services, perishability/separability of service goods and their effect on service logistics, inventory control models for perishable products, managing service supply capacity, managing service demand, and revenue management and dynamic pricing.
Richard XU
2005 E.M.Sc. in LSCM Graduate
APAC Operation Manager, Odyssey Logistics and Technology (Shanghai) Ltd. (China)

I have benefited a lot from the CUHK LSCM course. The curriculum was methodically designed enabling theory to go hand in hand with practice, and the classmates from diversified sectors also brought me extensive supply chain knowledge enriching my study. I feel truly grateful to these 2 years of study sharing ideas and happiness with my professors and fellows, and hope we would continue our exchange later. China is now undertaking technologies innovation in the supply chain management and logistics field, and developed at a surprising speed, let us see how well we can handle the tools we have been learning to use and go on to create our own legend together!

Randi WANG
2007 E.M.Sc. in LSCM Graduate

I enrolled on the E.M.Sc. programme with a clear target, which is to understand the up-to-date logistics technologies and knowledge, and to apply them to my work. During my two-year study, I learned transaction cost, resource dependence, application of radio frequency technology, VMI mode, the distribution route optimization and other practical theories. These management technology and knowledge help to broaden my horizons of company management and upgrade the company’s management skills.

Under my leadership, my company successfully upgraded the traditional logistics system. My company was identified as one of the key logistics enterprises in Shenzhen by the the Shenzhen Municipal Government.
Campus Life

University Facilities

The University has a range of facilities and resources aimed at making academic inquiry as smooth, invigorating and pleasurable a process as possible. These facilities also add extra dimensions to life on campus - from the artistic and cultural, to the recreational and athletic. And at CUHK, you can enjoy all the conveniences of Hong Kong's urban centre without the hassle.

Library System

The University Library System is home to one of Hong Kong's strongest and most comprehensive collections. There are seven libraries on the University campus to provide service for CUHK alumni, staff and students.

Department Laboratories

- Centre for Logistics Technologies and Supply Chain Optimization
- E-Services Laboratory
- Financial Engineering Laboratory
- Human-Computer Communications Laboratory
- Information Systems Laboratory (Key Laboratory of High Confidence Software Technologies)
- Knowledge Engineering Laboratory

Study Rooms

- The Department provide study rooms & discussion areas for postgraduate students
Company Visits / Field Studies

- Ageas Insurance
- Bank of China
- Bausch & Lomb
- China Merchant Group
- China Mobile
- CLSA Private Equity
- DuPont
- eBay
- Ecco
- Emirates Airline
- Fuji Xerox
- G2000
- Hallmark
- Hankyu Hanshin Express
- Hoi Tong Securities
- Hong Kong Air Cargo Terminals
- Hongkong International Terminals
- Huawei Technologies
- IBM
- Kerry Logistics
- KONE
- Hong Kong Logistics Association
- PPG
- Shui On
- Towngas
- Toyota
- Tse Shui Luen Jewel
- Viasystems