

College of Business

商學院

Department of Management Sciences

管理科學系



香港城市大學
City University of Hong Kong

Master of Science in Operations and Supply Chain Management

理學碩士(營運與供應鏈管理)



Student Handbook

2023-2024

Department of Management Sciences

College of Business
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Note :

- (1) Please read this programme handbook in conjunction with the academic policies and regulations in student e-portal and University Calendar. Should you need detailed advice on the MScOSCM programme, please consult the Programme Leader.**
- (2) Details contained in this booklet are subject to changes.**

1. AIM

Hong Kong, as a global trade centre, plays a major role in interfacing between suppliers and customers around the world. In the meanwhile, China is emerging to be the largest trading nation in the world. Both for Hong Kong to retain its leading competitive position in serving international markets and for mainland China to enhance its international competitiveness, it is crucial for industries to embrace best practices in Operations and Supply Chain Management. As a result, there is a high demand for professionals with knowledge of integrated supply chain processes and who are equipped to make effective use of enabling technologies.

The MScOSCM programme offers a comprehensive coverage of strategies, tactics and skills for operations and supply chain management and focuses on real application, empowering you with practical experience and professional knowledge. From the Master of Science in Operations and Supply Chain Management (MScOSCM), students will learn the modern quantitative analytical skills that facilitate problem identification, formulation, and analysis at all levels of supply chain management operational practices.

A hallmark feature of the Programme is to foster a strong link between our students and distinguished leaders of the relevant industrial community, such as founders and top management of listed companies whose business excels with excellent operations and supply chain management. Hence, we introduce Industrial Advisors to the Programme, and our students can learn from the best. Professional seminars and/or founder (of listed company) forums are to be arranged. The program benefits from the use of practical software packages to reinforce your understanding of the concepts, methods, and processes introduced.

2. PROGRAMME STRUCTURE

- 2.1 Academic Year is a period of 12 months starting in September of each year. The Academic Year consists of two semesters (A and B), each of 13-week duration, and a Summer Semester of 7-week duration.**
- 2.2 The MScOSCM is a 30-credit taught postgraduate degree programme that working professionals can complete in two years on a part-time basis and full-time students can complete the programme in one year.**
- 2.3 The programme is composed of “courses”. Each course is assigned a number of credit units (CU) - usually three units for a one-semester course.**
- 2.4 In this programme, particular courses are designated as “precursors”. A “precursor” is not a requirement, but students are advised to complete the corresponding precursors before registering in a course.**
- 2.5 Table 1 – “Schedule of Courses” shows the allocation of these 14 courses in each year of the programme.**
- 2.6 In addition to the core courses and the required electives listed below, students are able to customize their programme to reflect their interests and strengths by the selection of no more than two elective courses (to be counted for fulfilling the program requirement) within the College of Business (including marketing, finance, accounting, management, and information systems).**

Table 1: Schedule of Courses

	Core Courses (4 courses)	Required Electives (At Least 4)
Sem A	MS5313 Managerial Decision Modeling MS6325 Operations Management	MS5215 Business Analytics with Spreadsheet MS6211 Statistical Modelling in Risk Management MS6233 E-logistics and Enterprise Resource Planning MS6322 Transportation Logistics MS6324 Internship Project
Sem B	MS5318 Predictive Analytics with Excel and R MS6721 Supply Chain Management	MS5225 Business Process Modeling and Simulation MS5411 Healthcare Management MS6323 Strategic Sourcing and Procurement MS6324 Internship Project - Continued
		MS6722 Advanced Case Analysis for Supply Chain Management
Summer		MS5223 Project Management

3. **CREDIT TRANSFER**

Credit transfer (based on an equivalent graduate degree course) may be allowed for up to 30% of the credit units (CU) of all the courses of the programme. Applications for credit transfer for the work completed prior to entry to the University must be made in the first semester following the student's admission. **The application deadline is 1 September 2023.** Applications for credit transfer for outside work completed after admission to the University must be made immediately in the semester following attainment of the additional qualification. For information on the application procedures, please visit website <https://www.cityu.edu.hk/sgs/student/tpg/records/credittransfer>.

4. PROGRAMME MANAGEMENT AND COMMUNICATION

4.1 Programme Committee

Academic policy and decision making relating to the programme are the responsibilities of the Programme Committee which considers such matters as entry qualifications and admission policy, curriculum, teaching methods, assessment and examination regulations. The Committee is also responsible for the monitoring and evaluation of the effectiveness of the programme to ensure that the academic objectives of the programme are achieved.

4.2 Communication Channels

The following channels of communication between students and the department are available:

- (a) Students who are having academic difficulties with a course should speak directly to the instructor of that course.
- (b) A student wishing to discuss the organisation of the programme should speak to the Programme Leader.
- (c) Students can also channel general comments through their class representatives.

4.3 Programme Management

		<u>Rm No</u>	<u>Tel No</u>	<u>Email</u>
		AC3-		@cityu.edu.hk
(a)	<u>Programme Director</u>	Prof Jeff Wang	7-241 34428349	jf.wang
(b)	<u>Deputy Programme Director</u>	Prof Menglong LI	7-269 34428578	mengloli
(c)	<u>Programme Management Team</u>	Prof Hanwei LI Prof Yimin YU	7-270 34428587 7-273 34424781	hanweili yiminyu
(d)	<u>General Enquiry</u>	Ms. Mandy Tam	7-261 34428557	mandytam

APPENDIX A

DEPARTMENT OF MANAGEMENT SCIENCES

ACADEMIC STAFF LIST

	<u>Tel No</u>	<u>Email</u> @cityu.edu.hk	<u>Research Interests</u>
<u>Head & Professor</u>			
Prof Alan TK Wan	3442 7146	msawan	Model Averaging and Selection, Varying-Coefficient Semi-parametric Models, Missing and Censored Data, Quantile Regression
<u>Associate Head & Professor</u>			
Prof Biying Shou	3442 8360	biyishou	Operations and Supply Chain Management, Network Economics
<u>Chair Professors</u>			
Prof Frank Y H Chen	3442 8595	cbychen	Inventory Models, Machine learning in Supply Chains, Emerging Issues in Supply Chains, Healthcare management
Prof Pengfei Guo	3442 8672	penguo	Service Operations Management, Queueing Economics, Supply Chain and Inventory Management, Healthcare Policy and Operations Management
Prof Houmin Yan	3442 2881	houminyan	Risk modelling and analysis, Machine learning and algorithms, Stochastic models, Supply Chain Management
<u>Professors</u>			
<u>Professors</u>			
Prof Stephen W H Shum	3442 8571	swhshum	Pricing and Revenue Management, Supply Chain Management, Consumer Behavior in Operations Management

	<u>Tel No</u>	<u>Email</u> <u>@cityu.edu.hk</u>	<u>Research Interests</u>
Prof Kevin W Y Chiang	3442 8676	wchiang	Dynamic Pricing, E-Commerce/E-business Strategy, Marketing Science, Operations/ Marketing Interface, Supply Chain Management
Prof David Y Z Li	3442 7253	yanzhili	Operations/Marketing Interface, Supply Chain Financing, Green Operations and Supply Chain Management, Tax-Effective Supply Chain Management
Prof Guangwu Liu	3442 8304	guanliu	Financial Engineering, Risk Management, Stochastic Simulation, Machine Learning, Business Analytics
Prof Ye Lu	3442 8656	yelu22	Operations Management, Operations Research
<u>Associate Professors</u>			
Prof William S W Chung	3442 7057	mswchung	Large-Scale Modeling, Decomposition Methods, Equilibrium Modeling in Energy, Market and Transportation
Prof Gang Hao	3442 8403	msghao	Multiple Criteria Decision Making, Neural Networks, Logistics and Supply Chain Management, Fraud Management and Enterprise, Risk Management
Prof Lilun Du	3442 0189	lilundu	Large-scale inference and operations research
Prof Bruce K F Lam	3442 8582	msblam	Discriminant Analysis, Multi-Criteria Decision Making, Linear Programming, Data Envelopment Analysis
Prof Carrie K Y Lin	3442 9485	mslincky	Scheduling, Health Care Applications, Operations Planning, Optimization, Simulation

	<u>Tel No</u>	<u>Email</u> <u>@cityu.edu.hk</u>	<u>Research Interests</u>
Prof Zhankun Sun	3442 8650	Zhanksun	Stochastic Modeling, Optimal Control, Healthcare Operations, Behaviors in Decision Making
Prof Geoffrey K F Tso	3442 8568	msgtso	Statistical Modelling, Survey Methods, Market Research
Prof Jianfu Wang	3442 8349	jf.wang	Gig Economy, Information Technology Operations, Service Operations, Queueing Economics
Prof Yimin Yu	3442 4781	yiminyu	Inventory Models, Emerging Supply Chain Strategies, The Interface of Operations Management and Marketing, Behavior Models
 <u>Assistant Professors</u>			
Prof Chi Wing Chu	3442 8574	chiwchu	Survival Analysis, Quantile Regression, Semiparametric Inference, High Dimensional Testing
Prof Baojun DOU	3442 8589	baojudou	high dimensional time series, spatio-temporal processes, statistical learning for finance
Prof Gavin Guanhao Feng	3442 8346	gufeng	Bayesian Statistics, Empirical Asset Pricing, Machine Learning in Finance, Time-Varying Econometrics
Prof Jingyu He	3442 4753	jingyuhe	Machine Learning, Tree Ensembles, Bayesian Statistics, Empirical Asset Pricing
Prof Hanwei Li	3442 8587	hanweili	Empirical Operations Management, Pricing & Revenue Management, Machine Learning, Platform Operations
Prof Menglong Li	3442 8578	mengloli	Inventory Management, Revenue Management, Data-Driven Decision Making, (Discrete) Convex Analysis

	<u>Tel No</u>	<u>Email</u> @cityu.edu.hk	<u>Research Interests</u>
Prof Venus H L Lo	3442 4686	venus.hl.lo	Revenue Management: Assortment Optimization (Dynamic and Static), Customer Choice Modeling, Pricing Problems, Approximate Dynamic Programming, Discrete Optimization
Prof Sammy H K Yuen	3442 8579	mshkyuen	Data Mining Applications, Survival Analysis
Prof Zhixin Zhou	3442 8248	zhixzhou	Network analysis, high- dimensional statistics, information theory, sequential design, stochastic process, efficient search in recommendation system
 <u>Instructors</u>			
Dr Susanna M L Tam	3442 7483	susannat	Transportation Research, Marketing Research
Ms Sally O S Tsang	3442 8583	mssallyt	Operations Research

APPENDIX B

COURSE DESCRIPTION

Core Courses

MS5313 Managerial Decision Modeling

This course explores the fundamental concepts and methodologies to support managerial decision making. The students will have a basic understanding of linear programming, probability and statistics, decision analysis, and game theory. They will also gain rich hands-on experience to analyze and solve practical business problems.

MS5318 Predictive Analytics with Excel and R

The aim of this course is to introduce the statistical concepts and methodologies that are often associated with making predictions with data. We begin with fundamental statistical analysis (e.g. inference, simple regression), then adds both breadth (e.g. logistic regression) and depth (e.g. model selection) to the use of regression to find the best prediction model for business forecasting. You will learn how to build predictive models with data sets in various structures (e.g. quantitative or categorical response/predictors). You will understand the trade-off between over-predicting versus under-predicting. You will practice utilizing the learned methods to solve data-based business decision problems (e.g. healthcare operations, fraud detection) through examples and case studies. R language will be used to process data and generate prediction models. No prior statistical knowledge is required, and you do not need prior knowledge about Excel or R.

MS6325 Operations Management

This course is designed to provide students with an understanding of the processes which would transform manufacturing to a source of competitive advantage. In particular, we will study how efficient operations can be a competitive weapon in service industries as well as manufacturing sectors. The topics include system design, capacity planning. Process selection, facility layout, design of work systems, location planning, lean operations, scheduling and project management. Thus, the course is not only for an operations manager but also for a general manager who needs to revamp a company's operations to establish competitive advantage.

MS6721 Supply Chain Management

Supply chain management is about the management of material, information, and finance flows in multi-stage production-distribution networks. Driven by fierce global competition and enabled by advanced information technology, many companies have taken initiatives to reduce costs and at the same time increase responsiveness to changes in the marketplace. This course will provide students with the knowledge and the tools necessary to develop, implement, and sustain strategies for managing supply chain issues. The topics include building a strategic framework to analyze supply chains, designing the supply chain network, planning demand and supply, managing inventories, sourcing, transporting, pricing and revenue management, and coordinating a supply chain.

Required Electives

MS5215 Business Analytics with Spreadsheet

This course aims to equip students with a set of modeling skills and data analytical tools based on spreadsheet that enable them to address complex business problems. The content covers basic and advanced spreadsheet techniques, VBA programming and their business applications. Students will learn how to develop and use spreadsheet effectively for business analysis, and how to utilize data and models to derive insights and make better decisions.

MS5223 Project Management

The course aims to provide students with basic concepts and systematic approaches for effective project management. Students will be trained to apply the concepts and methods of project management with the use of case exercises and case studies.

At the completion of the course, students will be equipped with quantitative techniques for effective project planning, scheduling, cost control and estimation. Prevalent industrial software package on project management will be used for the teaching and learning.

MS5225 Business Process Modeling and Simulation

This course is designed to provide students with an understanding of the basic concept of simulation model and the use of modern computer simulation packages. With the animation feature of the model, it provides a strong tool to solve various real world operational problems with stochastic nature. It helps to analyse the characteristics of the systems and also evaluate the performance of operations in public and private sectors.

MS5314 Service Quality Management

This course endeavours to create a bridge between the theory and practice of service quality management. By understanding of the needs, wants, and desires of the customer and who the customer is, students can expect to learn some workable approaches, tools, and methods necessary for real service quality improvement. It also enables students to develop their analytical ability in using statistical tools for quality management, and provides an understanding of service quality improvement approaches and tools.

MS5411 Health Care Management

This course aims to provide students with a broad view of the healthcare delivery system in Hong Kong, worldwide and the operational management issues for service delivery at hospital and clinics. Students' analytic ability will be developed to integrate and apply the knowledge and learning in the course to tackle management and operational problems in healthcare organizations

MS6211 Statistical Health Care Management

This course aims to prepare students with business knowledge of risk management with emphasis on operational risk management, credit risk management, and financial risk management; develop students' modelling and computing skills to create and evaluate credit scorecards.

MS6233 E-logistics and Enterprise Resource Planning

This course is designed to provide students with an understanding of the processes in business logistics and supply chain management. In particular, students will study E-logistics and Enterprise Resource Planning. E-logistics provides a means to coordinating information, materials, equipment and money flows across the supply chain, which enables companies to shop, commit, execute and settle their logistics transactions electronically. Enterprise Resource Planning is a large computer system that integrates application programs in accounting, sales, manufacturing, and other functions in a firm. Enterprise Resource Planning is the backbone for E-logistics. The integration is accomplished through a database shared by all the application programs.

MS6322 Transportation Logistics

This course is designed to provide students with an understanding of the enterprise-crossing transportation logistics interrelated with supply chain management under a unified principle of winning-before-doing, which can explain the so-called Wal-Mart model in which a "factory" is a virtual logistics network of multiple production firms.

MS6323 Strategic Sourcing and Procurement

This course is designed to provide students with concepts, principles and methods for procurement and develop students' ability to perform the strategic sourcing and procurement. With real world situations of strategic sourcing and procurement through the use of practical examples and case studies, it provides students with the latest development of procurement discipline. The topics include purchasing function, quality management for goods and services, controlling prices and costs, vendor selection, sourcing & market analysis, competitive bidding and negotiation, commodity buying, capital buying, service buying, strategic sourcing and procurement, and e-procurement.

MS6324 Internship Project

This course is an independent project in content areas related to operations and supply chain management. Students work under the supervision of an assigned faculty advisor to address comprehensive company-based or research-orientated problems with documented results. Each group will have a customised project, which may be assigned by the student's employer or may be created in coordination with a faculty member. The completed project should clearly present the problem of the research subject investigated or applied project undertaken, its significance to theory or business practice, the research or project background, a well-defined method, results or findings, and their implications.

MS6722 Advanced Case Analysis for Supply Chain Management


This course aims to equip students with skill needed to analyse comprehensive supply chain cases, present to and communicate effectively with business clients, and write powerful business reports. The students will be exposed to a set of challenging business cases on operations and supply chain management, and they will be asked to solve business problems with knowledge learned from the program, individually or as a team. The course will prepare students for job interviews, business consulting, and taking up management entry positions in the operations and supply chain management profession.

APPENDIX C

Academic Calendar 2023/24

Week	S	M	T	W	T	F	S	Events	Public Holidays
	September, 2023							Semester A 2023/24 4 Sep – 2 Dec Teaching Period	
WK.1	3	4	5	6	7	8	9		
WK.2	10	11	12	13	14	15	16		
WK.3	17	18	19	20	21	22	23		
WK.4	24	25	26	27	28	29	30		30 Day following Mid-Autumn Festival
	October							3 Graduation Date	2 Day following National Day
WK.5	1	2	3	4	5	6	7		
WK.6	8	9	10	11	12	13	14		
WK.7	15	16	17	18	19	20	21		
WK.8	22	23	24	25	26	27	28		23 Chung Yeung Festival
WK.9	29	30	31						
	November								
WK.10	5	6	7	8	9	10	11		
WK.11	12	13	14	15	16	17	18		
WK.12	19	20	21	22	23	24	25		
WK.13	26	27	28	29	30				
	December							2 Last Day of Teaching 4 – 9 Student Revision Period 11 – 23 Examination Period	
	3	4	5	6	7	8	9		
	10	11	12	13	14	15	16		
	17	18	19	20	21	22	23		
	24	25	26	27	28	29	30	25 Dec – 13 Jan Semester Break	25 Christmas Day 26 Day following Christmas Day
	31								
	January, 2024							Semester B 2023/24 15 Jan – 20 Apr Teaching Period	1 First Day of January
	7	8	9	10	11	12	13		
WK.1	14	15	16	17	18	19	20		
WK.2	21	22	23	24	25	26	27		
WK.3	28	29	30	31					
	February							1 Graduation Date 9 – 15 Lunar New Year Break	10 – 13 Lunar New Year Holidays
WK.4	4	5	6	7	8	9	10		
WK.5	11	12	13	14	15	16	17		
WK.6	18	19	20	21	22	23	24		
	25	26	27	28	29				
	March								
WK.7	3	4	5	6	7	8	9		
WK.8	10	11	12	13	14	15	16		
WK.9	17	18	19	20	21	22	23		
WK.10	24	25	26	27	28	29	30		29 Good Friday 30 Day following Good Friday
WK.11	31								
	April							20 Last Day of Teaching 22 – 27 Student Revision Period 29 Apr – 13 May Examination Period	1 Easter Monday 4 Ching Ming Festival
WK.12	7	8	9	10	11	12	13		
WK.13	14	15	16	17	18	19	20		
	21	22	23	24	25	26	27		
	28	29	30						
	May							14 May – 8 Jun Semester Break	1 Labour Day 15 Buddha's Birthday
	5	6	7	8	9	10	11		
	12	13	14	15	16	17	18		
	19	20	21	22	23	24	25		
	26	27	28	29	30	31			

Week	S	M	T	W	T	F	S	Events	Public Holidays
	June, 2024								
							1		
	2	3	4	5	6	7	8	3 Graduation Date	
WK.1	9	10	11	12	13	14	15	Summer Term 2024	10 Tuen Ng Festival
WK.2	16	17	18	19	20	21	22	11 Jun – 27 Jul Teaching Period	
WK.3	23	24	25	26	27	28	29		
WK.4	30								
	July								
		1	2	3	4	5	6		1 HK SAR Establishment Day
WK.5	7	8	9	10	11	12	13		
WK.6	14	15	16	17	18	19	20		
WK.7	21	22	23	24	25	26	27	27 Last Day of Teaching	
	28	29	30	31				29 Jul – 3 Aug Student Revision Period	
	August								
					1	2	3		
	4	5	6	7	8	9	10	5 – 10 Examination Period	
	11	12	13	14	15	16	17	12 – 31 Term Break	
	18	19	20	21	22	23	24		
	25	26	27	28	29	30	31		

Note :  represents public holidays including all Sundays

Provisional Academic Calendar 2024/25

	Start Date	End Date
Semester A		
Teaching Period	2 September 2024	30 November 2024
Student Revision Period	2 December 2024	7 December 2024
Examination Period	9 December 2024	21 December 2024
Semester Break	23 December 2024	11 January 2025
Semester B		
Teaching Period	13 January 2025	17 April 2025
	<i>(Lunar New Year holidays: 29 – 31 January 2025)</i>	
Student Revision Period	22 April 2025	26 April 2025
Examination Period	28 April 2025	13 May 2025
Semester Break	14 May 2025	7 June 2025
Summer Term		
Teaching Period	9 June 2025	26 July 2025
Student Revision Period	28 July 2025	2 August 2025
Examination Period	4 August 2025	9 August 2025
Term Break	11 August 2025	30 August 2025

Provisional Academic Calendar 2025/26

	Start Date	End Date
Semester A		
Teaching Period	1 September 2025	29 November 2025
Student Revision Period	1 December 2025	6 December 2025
Examination Period	8 December 2025	20 December 2025
Semester Break	22 December 2025	10 January 2026
Semester B		
Teaching Period	12 January 2026	18 April 2026
	<i>(Lunar New Year holidays: 17 – 19 February 2026)</i>	
Student Revision Period	20 April 2026	25 April 2026
Examination Period	27 April 2026	11 May 2026
Semester Break	12 May 2026	6 June 2026
Summer Term		
Teaching Period	8 June 2026	25 July 2026
Student Revision Period	27 July 2026	1 August 2026
Examination Period	3 August 2026	8 August 2026
Term Break	10 August 2026	29 August 2026

