

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT4306
Subject Title	Supply Chain Analytics
Credit Value	3
Level	4
Normal Duration	1-semester
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	<p>The course focuses on operations management and analytics in basic supply chains, such as manufacturer-retailer and supplier-manufacturer systems. The course objectives are to learn recent best practices in supply chain management, and to develop analytical skills in solving specific types of logistics and supply chain problems. The course also intends to improve students' ability to deal with unstructured dynamic problems encountered in logistics and supply chain management. Skill development is accomplished through lectures, group assignments, and case studies.</p>
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> Understand the strategic importance of supply chain management in improving a firm's competitive position in the marketplace; Identify the key characteristics of successful supply chains and how they differ from the traditional approaches; Gain insights into issues involved in the design, planning, and deployment of a supply chain. Evaluate the impact of supply chain management principle on a firm's overall strategy. Demonstrate an understanding on the importance of information technologies and analytics in the integration of supply chains. Gain fundamental skills for analyzing and managing a supply chain in an organization. <p>Studying this subject will also help develop students' global outlook on global supply chain and global outsourcing, critical and creative thinking, and entrepreneurship.</p>
Subject Synopsis/ Indicative Syllabus	<p>Concepts in supply chain management; inventory management in the supply chain; logistics network design and planning; bullwhip effect and value of information; supply chain integration; product and process design for logistics; supply contracts; pricing and revenue management; strategic alliances and partnerships; information technology for supply chain; business analytics for supply chain management; supply chain finance; supply chain for new business models (such as e-commerce, multi-channel or Omni channel sales); supply chain</p>

	in emerging markets; emerging topics in supply chain management and analytics.																																																																				
Teaching/Learning Methodology	<p>In the lectures, the general principles of the syllabus topics will be presented and developed, together with guidance on further reading and activities. Lectures may also be used for the presentation and discussion of leading cases.</p> <p>In the tutorials, students will develop and apply the general principles of the topic in student-centered activities, including in-class exercises, and discussions.</p>																																																																				
Assessment Methods in Alignment with Intended Learning Outcomes	<table><tr><th rowspan="2">Specific assessment methods/tasks</th><th rowspan="2">% weighting</th><th colspan="6">Intended subject learning outcomes to be assessed (Please tick as appropriate)</th></tr><tr><th>a</th><th>b</th><th>c</th><th>d</th><th>e</th><th>f</th></tr><tr><td>1. Coursework</td><td>50 %</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>2. Final Examination</td><td>50 %</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>Total</td><td>100 %</td><td colspan="6"></td></tr></table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>Assessment of Coursework (i.e., Continuous Assessment) includes homework assignments and test(s). The test(s) and final exam will cover all topics in the syllabus, with a focus of testing students’ understanding of the strategic importance of supply chain management, key characteristics of successful supply chains, impact of supply chain management principle on a firm’s overall strategy, and the importance of information technologies and analytics. It will also test students’ insights into issues involved in the supply chain planning and design, as well as students’ fundamental skills for analyzing a supply chain.</p>								Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e	f	1. Coursework	50 %	✓	✓	✓	✓	✓	✓	2. Final Examination	50 %	✓	✓	✓	✓	✓	✓	Total	100 %																													
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Reading List and References	<p>Chopra, S. (2019), <i>Supply Chain Management: Strategy, Planning and Operation</i>, 7th edition, Pearson.</p> <p>Simchi-Levi, D., Kaminsky, P. and Simchi-Levi, E. (2022), <i>Designing and Managing the Supply Chain: Concepts, Strategies and Case Studies</i>, 4th edition, McGraw-Hill.</p>																																																																				