

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5426
Subject Title	Managing Innovation
Credit Value	3
Level	5
Normal Duration	1-semester
Pre-requisite / Co-requisite/ Exclusion	Nil
Objectives	<p>This subject addresses selected challenges and opportunities related to managing business innovation. It intends to discuss concepts, theorems, and tools to help students develop skills and insights for designing, evaluating, and managing business innovation. Moreover, the subject also plans to introduce various kinds of latest innovations in product, technology, operations process, and business models. The subject not only provides students with general understanding on effective management of innovation, but also provides rich practical examples to reflect the latest innovative advances, with special focus on the ones that have wide applications in supply chain and logistics related industries.</p> <p>This subject contributes to the following Intended Learning Outcomes for the MSc programme(s):</p> <p>MSc in Global Business and Decision Analysis #4 Apply decision tools/models to analyse global business problems (Learning objective 4b)</p> <p>MSc in Operations Management #1: Solve business problems</p>
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. understand the strategic role of innovation in organization, industry, and global market; b. understand the technological, human, economic, organizational, social, ethical, and other dimensions of innovation; c. learn and apply concepts, theorems, and tools to develop critical and analytical reasoning about business innovation in and beyond organizations; d. introduce various latest innovative advances in the areas of supply chain and logistics industries, including AI, Blockchain, Cloud Computing, Data Science, etc.

Subject Synopsis/ Indicative Syllabus	<ul style="list-style-type: none"> ▪ Key issues in managing innovation: concept of innovation, innovation and competitive advantage, source of innovation, framework of an innovative strategy, organizational issues of innovation, innovation in a competitive environment, effective implementation of innovation, social and ethical issues regarding innovation. ▪ Innovation under uncertainty: Innovative project measurement and selection, portfolio management, resource allocation, innovation execution under uncertainty, the theory of disruptive innovation, risk management. ▪ Product and technology innovation, e.g., AI, 3D printing, last-mile delivery, autonomous vehicles, blockchain technology, information security, green technology, big data analytics, etc. ▪ Operation process innovation, e.g., pooling and postponement, Toyota production system, fast pass waiting line management, etc. ▪ Business model innovation, e.g., omni-channel retailing, sharing economy, crowdfunding, crowdsourcing, innovative supply chain financing, etc. 																																						
Teaching/Learning Methodology	<p>Lectures: introduce concepts, theories, management issues, and latest applications of business innovation.</p> <p>Case study and group discussion: make connections of the contents from the lectures with real business practices so as to deepen the understanding of concepts, theories, and issues of innovation.</p> <p>Online simulation games: enhance the students' understanding and give them hands-on experience on managing (disruptive) innovation activities.</p> <p>Group project: provide students valuable opportunity to explore, recognize, and analyze key innovative practices of their interests.</p>																																						
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1" data-bbox="536 1514 1481 1921"> <thead> <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></th> <th></th> </tr> </thead> <tbody> <tr> <td>1. Coursework</td> <td>60 %</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>2. Examination</td> <td>40 %</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> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <ol style="list-style-type: none"> 1. Coursework may consist of case study, course final project and presentation, which can assess students' understanding in the 	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d			1. Coursework	60 %	✓	✓	✓	✓			2. Examination	40 %	✓	✓	✓	✓			Total	100 %						
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	<p>subject and evaluate their ability to analyze problems in real business environment.</p> <p>2. Examination assesses student’s in-depth understanding on the theoretical principles of the subject and the ability to apply conceptual framework in real business case analysis.</p> <p><i>To reflect the significant technology content in this subject, 10% (or more) of the overall weighting of this subject is based on individual assessment concerning technology-related knowledge.</i></p>	
Student Study Effort Expected	Class contact:	
	<ul style="list-style-type: none"> ▪ Lectures / Tutorials 	39 Hrs.
	Other student study effort:	
	<ul style="list-style-type: none"> ▪ Group discussions 	12 Hrs.
	<ul style="list-style-type: none"> ▪ Projects 	42 Hrs.
	<ul style="list-style-type: none"> ▪ Reading and homework 	33 Hrs.
	Total student study effort	126 Hrs.
Reading List and References	<p>Instructor’s lecture notes, handouts, and reading materials</p> <p>Karl Ulrich, Christian Terwiesch, Innovation Tournaments: Creating and Selecting Exceptional Opportunities, Harvard Business Review Press, 2009</p> <p>Joe Tidd, John Bessant, Managing Innovation: Integrating Technological, Market and Organizational Change (5th edition), Wiley, 2015</p> <p>Henk Zijm, Matthias Klumpp, Uwe Clausen, Michael ten Hompel, Logistics and Supply Chain Innovation: Bridging the Gap between Theory and Practice, Springer International Publishing, 2016</p> <p>Karan Girotra, Serguei Netessine, The Risk-Driven Business Model: Four Questions That Will Define Your Company, Harvard Business Review Press, 2014</p> <p>Journals Management Science Manufacturing and Operations Management Production and Operations Management Journal of Operations Management</p>	