

# The Hong Kong Polytechnic University

## Subject Description Form

<b>Subject Code</b>	LGT5122
<b>Subject Title</b>	Applications of Decision Making Models
<b>Credit Value</b>	3
<b>Level</b>	5
<b>Normal Duration</b>	1-semester
<b>Pre-requisite / Co-requisite / Exclusion</b>	Preferably with knowledge of LGT5102 “Models for Decision Making”.
<b>Role and Purposes</b>	<ol style="list-style-type: none"> <li>1. To impart on students the skills in applying the concepts, theories and techniques of a variety of management science methods.</li> <li>2. To develop students’ ability and confidence in solving management decision problems, particularly paying attention to the practical considerations.</li> </ol>
<b>Subject Learning Outcomes</b>	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> <li>a. Understand the range of practical application of management decision analysis techniques, the characteristics of successful application, and the limitations of the techniques.</li> <li>b. Develop skills in analyzing complex operations problems, using quantitative techniques as appropriate.</li> <li>c. Tackle a management decision situation from different angles of view, hence develop the creative thinking and be more critical to evaluate the outcomes of different decisions.</li> </ol>
<b>Subject Synopsis/ Indicative Syllabus</b>	<p>Decision scope: find out a clear scope of decision required.</p> <p>How to evaluate different decisions: identify the objectives; there may be conflicting objectives.</p> <p>Model the situation: search for appropriate analytical or heuristic methods to solve the problem; understand the limitations of each method.</p> <p>Analysis of results: cost and benefits analysis; sensitivity analysis.</p>
<b>Teaching/Learning Methodology</b>	<p>Mainly through small group discussions. Students will be guided throughout the discussion process, particularly addressing on the following issues:</p> <ol style="list-style-type: none"> <li>1. How to start to tackle a complicated situation?</li> </ol>

	2. How to understand the data given and link up the relationship among data? 3. Point out mistakes when applying different methods. 4. How to apply what they have learnt in other subjects to a real situation?							
<b>Assessment Methods in Alignment with Intended Learning Outcomes</b>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
			a	b	c			
	<b>Continuous Assessment*</b>	<b>100%</b>						
	Case studies	60%	✓	✓	✓			
	Class participation	40%	✓	✓	✓			
	Total	100 %						
<p><i>*Weighting of assessment methods/tasks in continuous assessment may be different, subject to each subject lecturer.</i></p> <p><i>To pass this subject, students are required to obtain Grade D or above in the Continuous Assessment components.</i></p> <p><b>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</b></p> <p>This subject will be dealing with cases in every session and students will learn through undergoing this process, with guidance. There is no examination in this subject. Therefore performance in class through participating in discussion is most important and is allocated with the most major part in the assessment. Students are expected to prepare every case before attending each session. Other than participation component, there will also be 3 group case studies to be assessed.</p>								
<b>Student Study Effort Expected</b>	Class contact:							
	▪ Small group discussions		26 Hrs.					
	▪ Lectures		13 Hrs.					
	Other student study effort:							
	▪ Preparation for lectures		45 Hrs.					
	▪ Preparation for assignment / group project and presentation		42 Hrs.					
	Total student study effort		126Hrs.					

**Reading List and  
References**

*Cases in Operations Management: Building Customer Value Through World-Class Operations* (The Ivey Casebook Series) (2005), Sage Publications, Inc.

Yin, R.K. (2014), *Case Study Research: Design and Methods*, Sage Publishing

Rohlfing, I. (2012), *Case Studies and Causal Inference*, Palgrave.

Rajnikanth D. (ed.) (2009), *Case Studies on Decision Making*, IBS Case Development Centre.

Klassen, R. D., Menor, L. J., *Cases in Operations Management*, Sage publication, 2006

*Journals*

Asia Pacific Journal of Operational Research

Decision Sciences

European Journal of Operational Research

IIE Transactions

Interfaces

Journal of the Operational Research Society

Management Science

Naval Research Logistics

Omega - International Journal of Management Science

Operations Research

OR Insight

OR/MS Today