

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5116
Subject Title	Operations Management
Credit Value	2
Level	5
Normal Duration	1-semester
Pre-requisite / Co-requisite/ Exclusion	Nil
Role and Purpose	This subject contributes to the achievement of the MBA Programme Outcomes by developing students' ability in the <u>application of operations management concepts</u> (Outcome 1) to operations decisions.
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. evaluate the importance of operations management in an organization b. have an overview of various areas of operations management c. build basic quantitative models that are used for decision-making in operations management, including assumptions and limitations of the models d. apply these models practically in management situations
Subject Synopsis/ Indicative Syllabus	<p><u>Introduction to operating systems concepts</u> Their role within the organisation and relation to other functions; Operating systems and strategy; Differences and similarities between manufacturing and service systems.</p> <p><u>Forecasting</u> Demand Management; Types of Forecasting; Quantitative Time Series Analysis; Web-Based Forecasting.</p> <p><u>Aggregate Sales and Operations Planning</u> Aggregate Planning Strategies and relevant costs, Capacity Management, Decision Tree Analysis.</p> <p><u>Inventory Management</u> Purchasing, inventory control and materials handling; Inventory control for independent demand items: ABC analysis, lot sizing models, Buffer stocks, replenishment systems.</p> <p><u>Plant Location and Facility Layout</u> Centroid Method for Plant Location Problems, Rectilinear Technique; Systematic Layout Planning; Line Balancing.</p>

	<p><u>Operations Scheduling</u> Job Sequencing Techniques: Priority Rules; Johnson’s Rule; Assignment Method; Personnel Scheduling.</p> <p><u>Project Management</u> Project structures; Network-Planning Models; Time-cost Trade-off Model.</p> <p><u>Quality Management</u> Defining quality; The costs of quality; Total quality management; Six Sigma; Statistical quality control.</p>																																														
<p>Teaching/Learning Methodology</p>	<p>Lectures provide a basic grounding in the principles, concepts and techniques in operations management. Exercises and discussion topics will focus on specific aspects of the subject. Case analysis will be used to study the highly complex nature of real world problems which normally involve many aspects of the subject. Recently published journal papers and business reports will be recommended for reading and discussion. Both local and international business cases will be used for illustration or exercise. In-class assignments will be provided for some quantitative exercises. Students are encouraged to form and analyze a small project related to their own business practice. Students will be able to obtain and share the course related information through the WebCT course website.</p>																																														
<p>Assessment Methods in Alignment with Intended Learning Outcomes</p>	<table border="1" data-bbox="518 981 1442 1496"> <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. Group Case Analysis</td> <td>25</td> <td>✓</td> <td></td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>2. Mid-term Test</td> <td>25</td> <td>✓</td> <td>✓</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>3. 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></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>The ability in application of operations management concepts (Outcome 1) will be assessed through a case study which requires students to understand and analyze a real operations management related situation, and able to apply what has been learnt to suggest solutions to the problem, supplemented by a small-scale quiz which may test some fundamental concepts, and an examination to test the quantitative skills in using different operations management techniques.</p> <p><i>To pass this subject, students are required to obtain Grade D or above in BOTH the Continuous Assessment and Exam components.</i></p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d			1. Group Case Analysis	25	✓		✓	✓			2. Mid-term Test	25	✓	✓					3. Examination	50	✓	✓		✓			Total	100 %						
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Student Study Effort Required	Class contact:	
	▪ Lecture and in-class work	24 Hrs.
	Other student study effort:	
	▪ Self-study	48 Hrs.
	Total student study effort	72 Hrs.
Reading List and References	<p>Jacobs F.R., Chase R.B. and Aquilano N.J., <i>Operations & Supply Chain Management</i>, (latest edition) McGraw Hill,.</p> <p>Davis M.M., Aquilano N.J. and Chase R.B., <i>Fundamentals of Operations Management</i>, (latest edition), McGraw Hill,.</p> <p>Steven Nahmias, <i>Production and Operations Analysis</i>, (latest edition), McGraw Hill,</p>	