

The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5014
Subject Title	Air Transport Logistics and Management
Credit Value	3
Level	5
Normal Duration	1-semester
Pre-requisite	Nil
Objectives	<p>To provide students with an insight and understanding of the economic principles and key issues in the logistics operation and management of air transport.</p> <p>This subject contributes to the following Intended Learning Outcomes for the MSc programme(s):</p> <p>MSc/PgD in International Shipping and Transport Logistics (Mixed-mode/Full time Stream)</p> <p>#2 Evaluate international logistics systems, operations and management, provide an insight and understanding of the concepts, theory of international logistics</p>
Intended Learning Outcomes	<p>Upon completion of the subject, students will be able to:</p> <ol style="list-style-type: none"> a. Appreciate the dynamic nature of the air transport logistic industry. b. Understand the basics of aviation economics, including impacts of the external forces (economic, geographic, demographic, legal, political, environmental and technological), and the internal forces (economic, competitive, operational) on the air transport logistics business. c. Use data to conduct cost-benefit analysis and model demand in air transport markets. d. Understand the basics of air cargo operation and airport operation. e. Understand the implication and application of artificial intelligence in air transport.
Subject Synopsis/ Indicative Syllabus	<p>The following topics will be covered in various extents and forms. The instructor may change the order and weights of these topics wherever fits.</p> <ul style="list-style-type: none"> • Economic impacts and current issues in the air transport industry • Influential factors of aviation markets • Air transport demand

	<ul style="list-style-type: none"> • Costs and production of air transport services • Intermodal issues in the air transport industry • Air cargo operation • Air freight forwarding / Express business model • Airport operation • Low-cost carriers • Applications of artificial intelligence in air transport 																																						
Teaching/Learning Methodology	Lectures will be used to present the theoretical foundations and how alternative skills can be applied to particular cases. Mini cases shall be used to give the students an updated view on the industry practices. Students are required to use the knowledge and methodology learned in this course to conduct projects which are related to some important issues in the aviation industry.																																						
Assessment Methods in Alignment with Intended Learning Outcomes	<table border="1"> <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>e</th> <th></th> </tr> </thead> <tbody> <tr> <td>Coursework</td> <td>50%</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>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> </tbody> </table> <p>Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:</p> <p>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.</p>	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)						a	b	c	d	e		Coursework	50%	✓	✓	✓	✓			Examination	50%	✓	✓	✓	✓	✓		Total	100 %						
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Reading List and References	<i>Book</i>																																						

	<p>Button, K. and Stough, R. (2000). <i>Air Transport Networks: Theory and Policy Implications</i>, Cheltenham, Northampton, Mass.: Edward Elgar Pub.</p> <p>De Neufville, R., Odoni, A., Belobaba, P. and Reynolds, T. (2013). <i>Airport Systems – Planning, Design and Management</i> (2 ed.), McGraw-Hill.</p> <p>Doganis, R. (2019), <i>Flying Off Course: The Economics of International Airlines</i>, 5th edition, Routledge.</p> <p>Morrell, P. (2019), <i>Moving Boxes by Air: The Economics of International Air cargo</i>, 2nd edition, Abingdon, Oxon : Routledge</p> <p>Oum, T.H, and Yu, C. (1998) <i>Winning Airlines: Productivity and Cost Competitiveness of the World's Major Airlines</i>, Kluwer Academic, Boston.</p> <p>Oum, T.H., Park, J. H. and Zhang, A. (2000), <i>Globalization and Strategic Alliances: The Case of the Airline Industry</i>, Pergamon for Elsevier Science.</p> <p>Vasigh, B., Fleming, K. and Tacker, T. (2008), <i>Introduction to Air Transport Economics</i>, Ashgate</p> <p>Wensveen, J. G. (2011). <i>Air Transportation: A Management Perspective</i> (7th ed.), Ashgate.</p> <p>Journals Air Cargo News Airline Business Aviation Strategy Flight International Aviation Economics Journal of Air Transport Management</p>
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