GMLOG 2009-2010

Module Specifications

a	Module title	**Risk Analysis and Assessment**
b	GMLog Module code	EC 4
c	Module Leader	**Dr Booi H Kam**
d	GMLog Credits	One (over twelve)
e	Level	**Master**
f	Period/Hub	Period 3 / **ASIAN PACIFIC HUB**
g	Pre-requisites	Knowledge of basic probability concepts
h	Post-requisites	Knowledge of risk analysis and diagnosis in business and management
i	Mandatory constraints	Problem solving and case studying; class attendance and participation
j	Advisory constraints	None
k	Rationale	None
l	Aims and distinctive features	To expose students to methods of risk analysis within the context of logistics and operations management
m	Learning outcomes	Ability to use a system mindset to diagnose risk problems. Ability to utilise various risk analysis techniques to solve problems in logistics and supply chain management.
n	Learning and teaching strategy	Face to face lecturing (12/24), problem analysis (12/24), personal works (readings and assignments).
o	Arrangements for revision and private study	None
p	Methods of assessment	Class Participation Three (3) Individual Assignments
q	Methods of reassessment (if different to p)	None

r	Estimated number attending module	15 to 20

s	Indicative content
	Risk Concepts and Definition
	Risk Analysis and Management: The Systems Approach
	Dealing with Uncertainty and Sustaining Competitive Advantages in the Supply Chain
	Techniques of Risk Analysis: Coarse Risk Analysis, Preliminary Hazard Analysis, Failure Mode, Effect and Criticality Analysis, Event Tree Analysis, Fault Tree Analysis and Cause Consequence Analysis
t	**Indicative reading**
	Andrews, J.D. and Ridley, L.M. (2002) “Application of the cause-consequence diagram method to static systems”, *Reliability Engineering & System Safety*, 75 (1): 47-58.
	Aven, T. & Vinnem, J.E. (2005) "On the Use of Risk Acceptance Criteria in the Offshore Oil and Gas Industry", *Reliability Engineering and System Safety*, 90:15-24.
	Aven, T. and Kristensen, V. (2005) “Perspectives on Risk: Review and Discussion of the basis for establishing a Unified and Holistic Approach”, *Reliability Engineering and Stystem Safety* 90: 1-14.
	Chopra, S. and Sodhi, M. S. (2004) “Managing Risk to Avoid Supply-Chain Breakdown”, *Sloan Management Review* 46 (1): 53-61.
	Christopher, M. and Lee, H. (2004) “Mitigating Supply Chain Risk Through Improved Confidence”, *International Journal of Physical Distribution & Logistics Management,* 34 (5): 388-396
	Courtney, H. Kirkland, J. and Viguerie, P. (1997) "Strategy Under Uncertainty", *Harvard Business Review*, Nov-Dec: 67-79.
	Grabowski, M. and Roberts, K. (1997) "Risk Mitigation in Large-Scale Systems: Lessons from High Reliability Organisations", *California Management Review* , 39(4): 152-162.
	Khan, O. and Burnes, B. (2007) “Risk and Supply Chain Management: Creating A Research Agenda”, *The International Journal of Logistics Management*, 18 (2): 197-216.
	O'Donnell, E. (2005) "Enterprise Risk Management: A System-Thinking Framework for the Event Identification Phase". *International Journal of Accounting Information Systems*, 6:177-195.
	Porter, M. (1996) “What is Strategy?” *Harvard Business Review*, Nov-Dec: 61-78.
	Puente, J., Pino, R., Priore, P. and Fuente, D. de la (2002) “A decision support system for applying failure mode and effects analysis”, *International Journal of Quality & Reliability Management,* 19 (2): 137-150
	Smallman, C. (1996) “Risk and Organizational Behaviour”, *Disaster Prevention and Management,* 5 (2):12-26.