The Hong Kong Polytechnic University

Subject Description Form

Please read the notes at the end of the table carefully before completing the form.

Subject Code	LGT5429
Subject Title	Global Risk and Decision Analysis
Credit Value	3
Level	5
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	To enable students to get familiar with different types of risks (political, legal, financial, operational etc.) in global business. To equip students with methods to identify, measure, and manage such risks. To enhance students' ability to identify opportunities and risks in the global marketplace and formulate successful international strategies. To provide the basic skills and conceptual understanding of the most widely applicable methodologies related to decision making and risk analysis. To develop a process for knowing when and how to conduct managerially relevant analysis under conditions of uncertainty, too many decision variables, and unstructured contexts, using both data and personal judgement. To develop a framework for understanding uncertainty and risk and methodologies for making decisions in the light of uncertainty and risk. This subject contributes to the following Intended Learning Outcomes for the MSc programme(s): MSc in Global Business and Decision Analysis

	#2 2. Apply quantitative methods and emerging analytics tools
Intended Learning Outcomes *(Note 1)*	Upon completion of the subject, students will be able to: A. Develop an understanding of global business and understand the concept of business risk. B. Use appropriate tools to identify and assess the risks that could potentially affect operations. C. Develop a conceptual understanding of commonly applied decision and risk analysis techniques in the context of global business problems. D. Apply appropriate strategies and tools available to globalized companies to mitigate and manage risk. E. Understand the assumptions implicit in models, as well as limitations and risks involved when models are put into practice. F. Appreciate the power of technological elements in risk and decision analysis.
Subject Synopsis/ Indicative Syllabus *(Note 2)*	● Discuss the impact of globalisation on multinational businesses and the role of international organizations that affect business organizations. ● Analyse the political, legal, economic and cultural risks of multinational companies in order to develop competitive strategies in a global environment. ● Understand the basic concepts of risk analysis, decision analysis, and the relationship between them. ● Learn how to understand and interpret the basic tools of risk analysis – fault trees, event trees, and simulation models. ● Introduce classical decision analysis techniques including decision structuring, decisions under uncertainty, risk attitudes, the value of information, sensitivity analysis, Monte Carlo simulation and group decisions. ● Discuss examples to show students how to identify risks in business operations and integrate appropriate tools and knowledge to deal with the complexity of decision making under risk and uncertainty.
Teaching/Learning Methodology *(Note 3)*	This subject aims to promote an understanding of the subject material and stimulate critical thinking. Students are expected to actively participate in this course and the lecturer will facilitate students' learning through lectures, discussions, and exercises. Specifically, students are: 1) expected to learn from lectures, group discussions, case studies, and interactions with the lecturer and with other students; 2) required to actively participate in discussions with peers and the lecturer both in class and after class on an online forum; 3) required to read the supplementary materials for every class; 4) required to complete one short assignment individually in order to think critically about elements of the subject and to demonstrate thoughtful analysis; 5) required to perform group discussions to clarify and understand important concepts and topics in this subject. By the end of this subject, students are expected to develop a deeper understanding of global business and be able to appreciate contemporary issues in global business.

	The teaching method will be a combination of lectures and class discussions. Lectures will be delivered to introduce students to the basic concepts in "Global Risk and Decision Analysis" and the analytical tools for the subject. Class discussion can facilitate students' exchange of ideas and experiences regarding the subject matter and provoke their critical thinking. After-class readings can help students build comprehensive knowledge framework related to various global business areas, and the case studies will improve students' capability to apply appropriate tools to analyse the problem and make better decisions under uncertainty.
Assessment Methods in Alignment with Intended Learning Outcomes *(Note 4)*	

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)					
		a	b	c	d	e	f
1. Coursework	50%						
Class participation (10%)		√	√	√		√	
Individual assignment (15%)			√	√	√		√
Group project (25%)		√	√	√	√	√	√
2. Examination	50%						
Total	100 %						

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.

Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes:

Assessment: The assessment will be based on two components:

a) An examination will be 50% of the overall assessment. The objective of the examination is for students to review all concepts and analytical tools covered in the subject one last time.

	b) Class participation, individual assignment, and group project will contribute towards the remaining 50% in the assessment.	
Student Study Effort Expected	Class contact:	
	▪ Lectures / Tutorials	39 Hrs.
	▪	Hrs.
	Other student study effort:	
	▪ Reading, doing exercises and cases	87 Hrs.
	▪	Hrs.
	Total student study effort	126 Hrs.
Reading List and References	Books: Sheffi, Yossi (2005). *The Resilient Enterprise*, MIT Press. Savage, S. L. (2009). *The Flaw of Averages: Why We Underestimate Risk in the Face of Uncertainty,* Hoboken, NJ: John Wiley & Sons, Inc. Milanovic, B. (2016). *Global Inequality. A New Approach for the Age of Globalization*, The Belknap Press of Harvard University Press. Daniel Wager, Dante Disparte. (2016). Global Risk Agility and Decision Making: Organizational Resilience in the Era of Man-Made Risk. Palgrave Macmillan; 1st Edition.	

	Robert Clemen and Terence Reilly (2014). *Making Hard Decisions with Decision Tools,* 3rd Edition, South-Western Cengage Learning. Bell, D. E. and A. Schleifer, Jr. (1995). *Decision-Making Under Uncertainty*, Cambridge, MA: Course Technology, Inc. Vincent A. W. J. Marchau, Warren E. Walker, Pieter J.T.M. Bloemen (2019). *Decision Making under Deep Uncertainty: From Theory to Practice.* Springer. Cliff Ragsdale. (2017) Spreadsheet Modeling & Decision Analysis: A Practical Introduction to Business Analytics. Cengage Learning; 8th Edition. Gregory S. Parnell, Terry A. Bresnick, Steven N. Tani, Eric R. Johnson. (2013) *Handbook of Decision Analysis.* John Wiley & Sons, Inc. Research Articles: Jacob W. Ulvila, Rex V. Brown. (1982) *Decision Analysis Comes of Age.* Harvard Business Review. Ralph L. Keeney. (1982) Feature Article - Decision Analysis: An Overview. Operations Research, 30(5): 803-838. Martin Weber, Heiko Zuchel. (2005) *How Do Prior Outcomes Affect Risk Attitude? Comparing Escalation of Commitment and the House-Money Effect.* Decision Analysis, Vol. 2, No. 1. Alen Nosic, Martin Weber. (2010) *How Riskily Do I Invest? The Role of Risk Attitudes, Risk Perceptions, and Overconfidence*. Decision Analysis, Vol. 7, No. 3. Donald L. Keefer, Craig W. Kirkwood, James L. Corner. (2004) Perspective on Decision Analysis Applications, 1990-2001. Decision Analysis, Vol. 1, No. 1.

Note 1: Intended Learning Outcomes

Intended learning outcomes should state what students should be able to do or attain upon subject completion. Subject outcomes are expected to contribute to the attainment of the overall programme outcomes.

Note 2: Subject Synopsis/Indicative Syllabus

The syllabus should adequately address the intended learning outcomes. At the same time, overcrowding of the syllabus should be avoided.

Note 3: Teaching/Learning Methodology
This section should include a brief description of the teaching and learning methods to be employed to facilitate learning, and a justification of how the methods are aligned with the intended learning outcomes of the subject.

Note 4: Assessment Method
This section should include the assessment method(s) to be used and its relative weighting, and indicate which of the subject intended learning outcomes that each method is intended to assess. It should also provide a brief explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes.