The Hong Kong Polytechnic University

Subject Description Form

Subject Code	LGT5159
Subject Title	Implementation and Auditing of Quality Management Systems
Credit Value	3
Level	5
Normal Duration	1-semester
Pre-requisite/Co-requisite/ Exclusion	ISE509 Auditing & Registration of Quality Systems
Objectives	The course introduces students to the principles and techniques of implementing and auditing several popular management systems with respect to concerns on compliance and organizations' improvement needs.
Intended Learning Outcomes	Upon completion of the subject, students will be able to a. understand the principles and requirements of management systems including ISO 9000, ISO 14000 and ISO 45000. b. understand the auditing and management review techniques to identify the nonconformities of different systems. c. understand the implementation strategy and methods of new quality management systems.
Subject Synopsis/ Indicative Syllabus	**Integrated Management Systems** Principle of management systems, process and plan-do-check-act cycle. **ISO 9000 Standard** Approaches to quality management; ISO 9000 series of standards, structure, and basic concepts; process approach; its relationship with TQM. **ISO 14000 Standard** Principles of ISO 14001; preparatory environmental review, environmental policy, planning, implementation and operation; checking and corrective actions; management review. **ISO 45000 Standards** Principles of ISO 45001; OH&S management system model; OH&S policy; planning, implementation and operation, management reviews. **Risk-based Thinking** Principles, methods and tools of ISO 31000; risk assessment and management in quality, environment, and occupational health and safety. **ISO 19011 Standards Management System Audits** Principles of auditing; managing an audit program; performing an audit; competence and evaluation of auditors.

	Certification of Management systems ISO 17021-1 Conformity assessment requirements; Principles of certification/registration; certification process; post certification obligations; typical problems and factors of successful certification and continuous implementation.
Teaching/Learning Methodology	Concepts and techniques will be introduced through lectures. Professional seminars featuring guest speakers from registration bodies, consultants, or QM practitioners will be organized. Students are required to apply the knowledge and skills to solve the implementation and auditing problems in the form of case studies or exercises.
Assessment Methods in Alignment with Intended Learning Outcomes	(see table below)

Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed					
		a	b	c			
1. Individual assignment	25%	✓	✓	✓			
2. Group project	25%	✓		✓			
3. Examination	50%	✓	✓	✓			
Total	100%						

Student Study Effort Expected	Class contact:	
	▪ Lectures / Tutorials	39 Hrs.
	Other student study effort:	
	▪ Reading and doing assignment and group project	87 Hrs.
	Total student study effort	126 Hrs.

| **Reading List and References** | 1. ISO 9001: 2015, ISO 14001: 2015, ISO45001: 2018, ISO 19011: 2018, ISO 31000:2018, ISO 17021-1: 2015

2. Dentch, M.P. (2016). The ISO 9001:2015 Implementation Handbook: Using the Process Approach to Build a Quality Management System, ASQ Quality Press.

3. Dentch, M.P. (2016). The ISO 14001:2015 Implementation Handbook: Using the Process Approach to Build an Environmental Management System, ASQ Quality Press. |

	4.	Hoyle, D. (2018). ISO 9000 Quality Systems Handbook, 7th Editions, Routledge.
	5.	Merrill, P. (2009). Do it Right the Second Time: Benchmarking Best Practices in the Quality Change Process, 2nd ed., ASQ Quality Press.
	6.	Tricker, R. (2017). ISO 9001:2015 for Small Business, Routledge.
	7.	Web Sites: www.iso.org; http://www.bsigroup.hk