

City University of Hong Kong
Course Syllabus

offered by Department of Systems Engineering and Engineering Management
with effect from Semester B 2015/16

Part I Course Overview

Course Title:	Quality Systems and Management
Course Code:	SEEM4025
Course Duration:	One Semester
Credit Units:	3
Level:	B4
Proposed Area: <i>(for GE courses only)</i>	<input type="checkbox"/> Arts and Humanities <input type="checkbox"/> Study of Societies, Social and Business Organisations <input type="checkbox"/> Science and Technology
Medium of Instruction:	English
Medium of Assessment:	English
Prerequisites: <i>(Course Code and Title)</i>	MEEM3042 Reliability and Quality Engineering or MEEM3062 (offered until Semester A 2011/12) / SEEM3062 Quality Engineering I
Precursors: <i>(Course Code and Title)</i>	Nil
Equivalent Courses: <i>(Course Code and Title)</i>	MEEM4025 Quality Systems and Management
Exclusive Courses: <i>(Course Code and Title)</i>	Nil

Part II Course Details

1. Abstract

(A 150-word description about the course)

This course aims to provide a broad understanding of Quality Systems and Management in both the manufacturing and servicing environment with strong emphasis on development of quality management systems and application of Total Quality Management (TQM) concepts to enhance organizational competitiveness. Students will be equipped with the ability to apply the knowhow of quality systems and TQM in their future work.

2. Course Intended Learning Outcomes (CILOs)

(CILOs state what the student is expected to be able to do at the end of the course according to a given standard of performance.)

No.	CILOs [#]	Weighting* (if applicable)	Discovery-enriched curriculum related learning outcomes (please tick where appropriate)		
			A1	A2	A3
1.	Define the various dimensions of quality in product and service realization.	10%			
2.	Outline the evolution and principles of modern quality management theories and practices	15%			
3.	Apply the concepts and principles of quality management systems, ISO9000, QS9000, etc. in developing company wide quality systems.	30%			
4.	Apply key elements of Total Quality Management (TQM): strategic quality management, leadership, customer focus and satisfaction, supplier partnership, employee involvement, performance measures, etc.	30%	√	√	√
5.	Describe the framework and associated issues of implementing TQM systems in the organizations.	15%			
		100%			

* If weighting is assigned to CILOs, they should add up to 100%.

[#] Please specify the alignment of CILOs to the Gateway Education Programme Intended Learning outcomes (PILOs) in Section A of Annex.

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to self-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

3. Teaching and Learning Activities (TLAs)
(TLAs designed to facilitate students' achievement of the CILOs.)

TLA	Brief Description	CILO No.					Hours/week (if applicable)
		1	2	3	4	5	
Large class activities	During the large-class lectures, students are given a general overview on various aspects of the related topics with support by some small in-class assignments.	√	√	√	√	√	2 hours/week
Tutorial and Case Studies (Small group)	During the small-group tutorial classes, two group assignments in the form of Student-Centred Activities (SCA) will be given to students. They are expected to work in groups of three to four on two quality related topics. The groups are required to give presentations on their final outcomes of their work, as well as a group report. Each member should explicitly state in the project report about his/her effort and contributions to the overall project result.			√	√		1 hour/ week
Consultation Hours	Consultation hours will be used to facilitate discussions of various issues related to the lecture materials, mini-projects, and tutorial questions.	√	√	√	√	√	1 hour/ week/ 25 students

4. Assessment Tasks/Activities (ATs)
(ATs are designed to assess how well the students achieve the CILOs.)

Assessment Tasks/Activities	CILO No.					Weighting*	Remarks
	1	2	3	4	5		
Continuous Assessment: <u>40</u> %							
In-class assignments			√	√	√	10%	
Group-based case studies reports and presentation	√	√				30%	
Examination: <u>60</u> % (duration: 2 hours)							
* The weightings should add up to 100%.						100%	

For a student to pass the course, at least 30% of the maximum mark for the examination should be obtained.

5. Assessment Rubrics

(Grading of student achievements is based on student performance in assessment tasks/activities with the following rubrics.)

Assessment Task	Criterion	Excellent (A+, A, A-)	Good (B+, B, B-)	Adequate (C+, C, C-)	Marginal (D)	Failure (F)
1. Class assignment / Group-based case studies reports and presentation	Submitted written work and delivered presentation	Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.	Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.	Evidence that student is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.	Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.	Little evidence of familiarity with the subject matter; weakness in critical and analytic skills; limited, or irrelevant use of literature.
2. Examination	Submitted written work	Strong evidence of original thinking; good organization, capacity to analyse and synthesize; superior grasp of subject matter; evidence of extensive knowledge base.	Evidence of grasp of subject, some evidence of critical capacity and analytic ability; reasonable understanding of issues; evidence of familiarity with literature.	Evidence that student is profiting from the university experience; understanding of the subject; ability to develop solutions to simple problems in the material.	Sufficient familiarity with the subject matter to enable the student to progress without repeating the course.	Little evidence of familiarity with the subject matter; weakness in critical and analytic skills; limited, or irrelevant use of literature.

Notes:

This is a Continuing Education Fund (CEF) Approved Course, to be eligible for reimbursement; students must achieve the following criteria;

- A minimum attendance rate of **70%** (Students should sign on the attendance record for every lesson); and
- Grade C+ or above of the reimbursable course.

Part III Other Information (more details can be provided separately in the teaching plan)

1. Keyword Syllabus

(An indication of the key topics of the course).

- Definition and Dimensions of Quality
- Modern Quality Management development and background
- Quality Management Systems, ISO9000, QS9000, etc.
- Quality Improvement and Total Quality Management
- Strategic Quality Management and Leadership
- Customer Focus and Satisfaction
- Supplier Partnership
- Employee Involvement
- Performance Measurement
- Six Sigma
- Organization-wide Quality Improvement Implementation Framework

2. Reading List

2.1 Compulsory Readings

(Compulsory readings can include books, book chapters, or journal/magazine articles. There are also collections of e-books, e-journals available from the CityU Library.)

2.2 Additional Readings

(Additional references for students to learn to expand their knowledge about the subject.)

1.	"Total Quality Management", by D H Besterfield et al., 3rd edition, Prentice-Hall, Englewood, USA, 2003.
2.	"Juran's Quality Planning and Analysis", F M Gryna, C H Chua and J A DeFeo, 5 th edition, McGraw-Hill, 2007.
3.	"Quality Management", by D L Goetsch and S B Davis, Prentice-Hall, 4 th edition, 2003.
4.	"Quality management: concepts, techniques and systems", by Bholanath Das., Publisher:: New Century Publications, New Delhi, 2013.
5.	"Total quality management: text and cases", by K. Shridhara Bhat, Publisher: Himalaya Pub. House, Mumbai, India, 2010
6.	"Exploding the myths surrounding ISO9000 : a practical implementation guide", by Andrew W. Nichols, Ely, Cambridgeshire, U.K. : IT Governance Pub., 2013
7.	"The Six Sigma way : how to maximize the impact of your change and improvement efforts", by Peter S. Pande, Robert P. Neuman, Roland R. Cavanagh, Publisher : McGraw-Hill, N.Y., second edition, 2014
8.	"A TQM Implementation Framework for Hong Kong Manufacturing Industries", by K S Chin and B G Dale, City University of Hong Kong, 2000.
9.	Quality Progress, ASQ monthly publication
10.	Quality Management Journal
11.	International Journal of Quality and Reliability Management