Course Title:	Quality Assurance in Supply Chains
Course Code:	SM687
Department:	Operations and Supply Chain

HSM Vision

HSM envisions its success in the sustainable contribution that it will make to the industry, academia and research in public and private sector. HSM will lead by providing professionally competent and ethically conscious human resources engaged in the global and local context to foster socio-economic growth and sustainability for the society. HSM envisages having faculty with high research potential and a deep desire for cutting edge research including collaboration with national and international partners.

HSM Mission

Being a research-oriented and student-centric business school, we emphasize research publications in impact journals as well as state-of -the-art learning methodologies. We will prepare our students to become the future ethical business leaders and the guiding post for the society, while equipping them with the knowledge and skills required by world-class professionals. We will be the leading choice for organizations seeking highly talented human resource. HSM will foster internationalization with key stakeholders and actively work to exchange best practices with business schools across Pakistan through collaborations, workshops, conferences and other means.

CAPSULE STATEMENT

During the second of half of 20th century, quality management (QM) revolutionized the business processes and practices. In academia, it has been one of the major research areas in the operations management literature during this period. Over the years it has evolved to incorporate new practices (e.g. supply chain management (SCM)) and methodologies (e.g. Six Sigma). Quality gurus argued that quality improvement can increase the profitability by

improving the marketability of the products through improved performance and driving down costs that result from defects and field failures. Empirical evidence indeed suggests that QM is positively related to improvement in; product quality, customer satisfaction, market share, and competitive advantage.

A SC is composed of all the entities taking part in fulfilling a customer's order. Supply Chain Management (SCM) enables organizations to manage the value addition in goods and services throughout the SC as a single process with a common goal of customer satisfaction. This is contrary to the traditional practice of entering into arms-length relationships with the SC partners (customers/suppliers) where dealing with them is a zero sum game. Research and practice indicates that SCM is an effective tool for firms seeking increased competitiveness, business stability, and growth.

Recent years have seen increased amount of interest in the study of QM from SC perspective. This area has been formally termed as "supply chain quality management." Foster and Ogden (2008) suggested that SCM and QM efforts improve each others' performance and integration between the two functions can be beneficial for an organization in many ways. Houshmand and Rakotobe-Joel (2000) argued that SCM as a paradigm is geared toward adjusting the system at the SC level so as to achieve harmony in all the processes whereas quality improvement efforts target higher level of performance continuously at the organizational level. Organizations, however, are usually involved in these two activities simultaneously and hence require SC integration and quality improvement at the same time. It is also important to integrate SCM and QM because both are interrelated, i.e. better quality cannot be achieved without SC integration and efforts to improve quality on continual basis usually result in higher level of integration between all the SC partners.

The objective of this course is to develop an understanding of QM practices with reference to SCs and how quality tools and management practices can be effective in SCs.

LEARNING OBJECTIVES

By the end of this course, you should be able to:

- Understand & apply principles of quality management (QM) with SC perspective
- Learn to apply problem solving & process improvement techniques of QM in SCs
- Develop a thinking process that allows participants to come up with "out of the box" solutions for the SC related quality problems
- Understand how to develop and implement SC quality strategy

COURSE ASSESSMENT

Quizzes	10%
Assignments	10%
Class Participation	20%
Presentations	10%
Term Paper	20%
Final Exam (Comprehensive)	30%

TEXT

Articles assigned (Available on Moodle before every class)

ADDITIONAL REFERENCES

1. *The Management and Control of Quality*. 6th ed. By Evans, James R., and William M. Lindsay

2. *Introduction to Statistical Quality Control.* 6th ed. By Douglas C. Montgomery

3. *Juran's Quality Control Handbook.* 5th ed. By Juran, Joseph M., and Frank M. Gryna.

4. *Six Sigma and Beyond* by D H Stamatis.

5. *Total Quality Management* by John Oakland 6th ed.

USEFUL LINKS

Pakistan Institute of Quality http://www.piqc.com.pk/
National Productivity Organization http://www.npo.gov.pk/default.asp

Malcolm Baldrige National Quality Award http://www.quality.nist.gov/
European Society For Quality http://www.efqm.org/en/

Journal of Quality and Technology Management

http://www.pu.edu.pk/iqtm/journal/index.html

The TQM Journal

http://www.emeraldinsight.com/journals.htm?issn=1754-2731

International Journal of Quality and Service Sciences

http://www.emeraldinsight.com/journals.htm?issn=1756-669X

International Journal of Quality & Reliability Management

http://www.emeraldinsight.com/journals.htm?issn=0265-671X

International Journal of Quality Science

http://www.emeraldinsight.com/journals.htm?issn=1359-8538&PHPSESSID=vsear2h2sg6vl53ltefr9aso35

LIST OF QUALITY RELATED JOURNALS ON EMERALD

http://www.emeraldinsight.com/browse.htm?content=journals_books&by=subject&subject=85&type=journals

Quality Assurance in Supply Chains

CLASS POLICY

PARTICIPATION

Participation is one of the most important (and consequential) component of the overall grade. Each participant is expected to participate fully in class discussions. Readings related to each session will be assigned one week prior to the class. It is a prerequisite for the participants to come prepared after reading all the assigned material and participate in class discussions with relevant arguments.

TEAM WORK

Teamwork plays a very important role in implementation of quality management practices. It is also an important part of your learning experience and you are expected to learn how to do tough assignments in teams *(not necessarily chosen by you)* and meet the deadlines and quality standards. Teams for projects and assignments will be announced in the first quarter of the course.

ORAL PRESENTATIONS

Each participant will be asked to present a topic before the class at least once during the course. The topics of these presentations will be provided by the resource person. Minimum 20 minutes will be allowed for each presentation. These presentations should show not only the knowledge acquired in the current course but also your prior knowledge and research in the area. I will make an effort to upload the complete schedule of presentations on Moodle well before time so that each participant can make preparations accordingly. It will be your responsibility to keep track of your turn. A hardcopy of the presentation (in handout format) is to be handed to me before the presentation. You are encouraged to show and discuss your presentation with me before the class. So that shortcomings on the day of presentation can be avoided.

ASSIGNMENTS & CASES

Group and individual assignments will be assigned related to each session. Assignments should be uploaded on Moodle before the deadline. You can contact me through email (before the deadline) if you have problems in uploading the assignments on Moodle.

FINAL PROJECT

Teams are required to submit the final project by **12th session**. Final presentations for the projects will be held in the 15th session. There are 2 options for final project;

1- TERM PAPER: You may also choose to write a position paper on any of the topics to be covered in the class during the course highlighting all the associated knowledge areas. This paper should be minimum 4000 words. This option does not require you to collect any primary data. However you need to display all the qualities required to write good research (good English, reading relevant research, proper referencing etc).

2- **CASE STUDY:** Instead of doing theoretical research in an organization you could also choose to write a case study on implementation of a quality practice in SCs in any of the Pakistani organization. Your report should show the complete analysis of the implementation process and results of a implementing the particular quality practice or tool.
We shall extensively discuss the progress of your projects during the course so that any apprehensions that the participants might have can be avoided.

QUIZZES

In order to incentivize the weekly readings, every once in a while there will be an unannounced quiz based on the assigned readings. There might be quizzes related to previous topics as well but they will be announced. From a total of (n) quizzes, best (n -1) quizzes may be considered for the final grade. No make-up quizzes will be allowed.

USE OF MOBILE PHONES AND OTHER ELECTRONIC DEVICES

1. Use of mobile phones and any other electronic device (except calculators) is prohibited during the class time.

2. All mobile phones should be turned-off and secured in pockets or bags during the class time, and may not be used for ANY purpose, including calculations, time-keeping, etc

Course Contents

Week	Topics
1&2	Quality & Supply Chain Management: Historical Perspective
3&4	Quality assurance in SCs
5	Lean Management: Introduction
6	Lean Management: Tools & Techniques
7	Lean Initiatives in Supply Chains
8	SC integration
9	Supplier Quality Management: Concepts
10	Supplier Quality Management: Tools
11&12	Managing SC Processes
13	Performance Measurement
14	Sustainable Supply Chains
15	Presentations