



The University of Auckland Business School

Course Outline 2008 OPSMGT 372: SYSTEMS AND QUALITY MANAGEMENT (15 POINTS)

Semester 1, (1083)

Course Prescription

The principles for delivering quality products and services that have value for both external and internal customers, while reducing waste throughout the system.

Programme and Course Advice

Prerequisite: STATS 255, OPSMGT 255, 258.

Restriction: OPSMGT 256

Goals of the Course

A major attribute of a successful organisation is its financial health. Any activity not promoting this is considered wasteful. Obviously, organisations are driven by a profit motivation, to make money now and in the future. In an era of global competition, as market forces determine price; increasing profit is possible only through reducing cost. Realising the role of quality in cutting down cost as well as increasing market share has been the cause of the modern revolution in management. To manage an organisation effectively with quality as the driving force and to develop appropriate business strategies, an understanding of TQM philosophy, systems, tools and practices is required.

TQM is a company-wide quality activity. It involves the entire organisation, as deficiencies in one department affect the functioning of another. A cross-functional perspective is therefore called for. This is an understanding emanating from what is called Systems Thinking. For implementing TQM in an organisation run in the 'old' way, effective management of change is essential. This requires commitment from the top, involvement at all levels, customer focus, process orientation, continuous improvement, elimination of waste, fool-proofing, sharing information, partnership with suppliers, and the extraordinary wisdom to listen to both the voice of the customers (both internal and external) and the processes. TQM aims to foster a cross-functional spirit in an organisation. No more there is rivalry between sales and production, production and inspection, but there is a single entity, a team.

To bring about such a cultural change in an organisation it is impossible without commitment and constancy of purpose. The goal of this course is to prepare the students to be such change agents.

Learning Outcomes

By the end of this course it is expected that a student will be able to:

1. understand the role of quality in a business strategy;

2. acquire a basic knowledge of systems thinking for quality;
3. understand that the essence of organisational health, is people;
4. understand the need for innovation and continuous improvement;
5. acquire skills in using statistical thinking in management processes; and
6. learn how organisational quality achievements are evaluated against quality awards criteria.

Content Outline

- Total Quality Management and Systems Thinking
- Total Quality, Philosophies
- Focusing on Customer
- Leadership & Strategic Planning
- Continuous Improvement Tools
- Statistical Thinking and applications
- Process Management
- Principles of Six Sigma. Taguchi Concepts
- Innovations in Manufacturing & Product Development
- TQM Implementation
- Baldrige National Quality Award

Learning and Teaching

A variety of instructional methods will be employed, including lecture, guest lecture, simulations, case discussion, role plays, and videos. The course content will present both contemporary research (primarily from journal articles and the textbook) and practice (from case studies and examples in class) in Quality Management and closely related fields.

Classes will be held at the city campus and comprise two/three weekly lectures of one hour each. Weekly tutorials (one of the contact hours) will provide examples to assist learning and assignment completion.

Teaching Staff

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Learning Resources

The students are expected to bring and use the course material supplied for the course during the lectures. In addition the students are required to bring the prescribed text to the lecture sessions.

Prescribed Text: James R. Evans and William M. Lindsay, *The Management and Control of Quality* Sixth Edition, South-Western, Thomson Learning, Australia. ISBN 0-324-06680-5

Students are encouraged to read and refer to web-based material/articles mentioned during the classroom sessions.

Assessment

The group quality project (GQP) is an important part of the coursework. The 15% allotted for the GQP is divided into common (10%) and individual (5%) components. The expectation is that each member of the group exploits the talents available in the group for the best performance in the common component. Based on the performance during project presentation individual component is evaluated. However, group peer evaluation will apply.

Group quality Project (15%)
 Two assignments will assess the student's computational and conceptual understanding (15%).
 A 1.5-hour Mid-semester test (date announced in Cecil) (20%)
 A 3-hour closed book final examination at the end of the semester. (50%)
 Learning outcomes are assessed in the various assessments as given below.

Learning Outcome	Assignment 1	Assignment 2	Mid-Term Test	Final Exam	Group Quality Project
1	✓				
2			✓	✓	✓
3			✓	✓	
4				✓	
5		✓	✓		✓
6				✓	