

Course Name :TOTAL QUALITY MANAGEMENT

Course Code: 11B1WPD834

Course Credit: 3

Semester : VII

Course Type: Elective (All B. Tech. Students)

Department: Humanities and Social Sciences

Course Coordinator :

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About the course:

Quality management is a system that serves to control Quality in the critical activities of an organization by bringing together resources, equipment, people and procedures. It uses techniques and principles such as quality function deployment, Taguchi method, service quality management, quality audits and Six Sigma to control quality in every sphere of activity in an organization.

Learning Outcomes:

- 1.** Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems.
- 2.** Identify the key aspects of the quality improvement cycle and to select and use appropriate tools and techniques for controlling, improving and measuring quality.
- 3.** Critically appraise the organisational, communication and teamwork requirements for effective quality management
- 4.** Critically analyse the strategic issues in quality management, including current issues and developments, and to devise and evaluate quality implementation plans

Course Outline:

Unit	Contents	Learning Outcomes	Hrs
1	<p>Introduction to Quality- The History And Importance of Quality; Defining Quality; Quality in Management Framework</p> <p>#TQM, Besterfield</p>	<ul style="list-style-type: none"> • Understanding the basic concepts of TQM • Brief overview of TQM framework • Contribution of quality gurus in the TQM journey • Benefits of TQM 	3
2	<p>Total Quality In Organization- Quality and Quality System Thinking; Quality in Manufacturing; Quality in Service; Quality in Small Business; Quality in Public Sector.</p> <p>#The Management and Control of Quality, Evans Lindsay</p>	<ul style="list-style-type: none"> • Develop a thinking towards Quality systems and Thinking. • Understand Quality in Manufacturing, Service, Health care and Education • Relate to Quality in Public Sector 	4
3	<p>Philosophies and Framework - The Deming Philosophy; The Juran Philosophy; The Crosby Philosophy. Quality Management awards and Frameworks, The Malcolm Baldrige National Quality Award, International Quality awards and Programs, ISO 9000:2000. Evolution of Six Sigma, Baldrige Award</p> <p>#The Management and Control of Quality, Evans Lindsay</p>	<ul style="list-style-type: none"> • Implement and use Deming Philosophy, Juran Philosophy, Crosby Philosophy • Understand the application and processes of The various Quality Awards • Know how ISO9000:2000 works • Understand the functioning and application of Six Sigma 	4
4	<p>Focusing on Customers- The Importance of Customer Loyalty and Satisfaction; Creating Satisfied Customers; Customer Relationship</p>	<ul style="list-style-type: none"> • Acknowledge the importance of both internal and external customer • Focus on Customer satisfaction through defined quality processes. • Use of Deming Philosophy in customer 	4

	Management; Measuring Customer Satisfaction. #TQM, Besterfield	satisfaction.	
5	Continuous Process Improvement- Juran Trilogy, Improvement Strategies , Types of Problems, The PDCA cycle, Problem solving Methods, Kaizen, Reengineering #TQM, Besterfield	<ul style="list-style-type: none"> • Realize the difference between perfection and continuous improvement • Defining and mapping a process through Juran Trilogy • Choosing and integrating right improvement strategies • Understanding the types of problems • Understanding the concept of the PDSA cycle and problem solving method • Apply the PDCA cycles to various organization processes 	4
6	Leadership And Strategic Planning - Leadership theory and practices, Creating the leadership system, Strategic Planning, leadership, strategy and organization structure, leadership for Quality ; The Seven Management And Planning tools, #TQM, Besterfield	<ul style="list-style-type: none"> • Understand the definition of a leader and the characteristics of a quality leader • Implement principle-centered leadership based on character ethics rather than personality ethics • Define the Role of leadership in building a foundation of ethical standards in the organization • Appreciate and understand Deming's philosophy and 14-points as a framework for TQM • Importance of commitment and involvement of leadership and management in TQM implementation • Understand the structure and functions of quality council in order to drive TQM implementation • Setting direction for TQM efforts, creating vision, mission, quality policy and establishing strategic objectives 	4
7	Human Resource Practices - The Scope of HRM ; Teams in Organizational Design and Quality Improvement ; HRM in	<ul style="list-style-type: none"> • Design High performance work systems • Building Effective Teams • Implementing Six Sigma towards Quality improvement • Measuring Employee satisfaction and HRM 	4

	ISO 9000 and Six Sigma #The Management and Control of Quality, Evans Lindsay	effectiveness.	
8	Performance Measurement and Strategic Information Management - The Strategic value of Information; The Scope of Performance Measurement; The Cost of Quality; Measurement and Information management in ISO 9000 and Six Sigma. #The Management and Control of Quality, Evans Lindsay	<ul style="list-style-type: none"> • Acknowledge the strategic value of leading practices and therefore their implementation • Efficiently designing the effective performance measurement system • Measure the Return on Quality 	3
9	Principles of Six Sigma - The statistical basis of Six Sigma ; Six Sigma Problem Solving (The DMAIC Methodology ; Tools and Techniques; Design for Six Sigma #The Management and Control of Quality, Evans Lindsay	<ul style="list-style-type: none"> • Acknowledge, Understand, Implement Six Sigma Principles 	5
10	Statistical Thinking and Application - Statistical Methods Basic tools for Process Improvement (Flow charts, Check Sheets, Histogram etc.), Other Tools: Kaizen Blitz, Poka-Yoke, Process Simulation #The Management and Control of Quality, Evans Lindsay	<ul style="list-style-type: none"> • Apply various statistical tools to measure quality and customer satisfaction 	3

11	Benchmarking -Define benchmarking, Reasons to benchmark Process, Deciding what to Benchmark, Pitfalls and criticism of Benchmarking #TQM, Besterfield	<ul style="list-style-type: none"> • Understand the need for Benchmarking • Understanding the process of benchmarking • Identifying the critical factors to success • Planning the benchmarking exercise • Studying and analyzing the results • Analyze and Identify the limitations and pitfalls of Benchmarking 	4
	Total Hours		42

Text book referred

Pedagogy:

The course shall be taught through lectures, case studies and class discussions. The students will be provided with research papers which they will be analyze and study to further strengthen their understanding of the topics.

Evaluation Scheme:

Mid Term Test (2hrs)	30
End Term Test (3hrs)	45
Teacher Assessment (Based on Case studies, individual presentations, Group Presentations and projects.) <ul style="list-style-type: none"> • Individual Topic presentation-3 • Case study – 10 Marks(10 case studies of 10 marks each to be scaled down to 10) • Group Presentations and Project – 12 marks 	25
Total	100

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- **Learning outcome nos. 1,2,3,4 will be tested through case studies, role plays and evaluation exercises.**
- **Learning outcome nos. 3,4 will be tested through analysis and evaluation of research papers.**
- **Learning outcome nos. 1,2,3,4 will be tested through written examination (Mid term and End Term Test)**
- **Learning outcome nos. 4 will be tested by individual discussion topics taken in the class and through role plays.**

**** 1 . Students are required to score at least 22 marks out of 75**

2. Students are required to score at least 8 marks out of 25 in internal assessment.

Text Book

- Dale H. Besterfield, Pearson, *Total quality Management*, Pearson Education
- Evans's. James, Lindsay M. William , *The Management and Control of Quality*, Cengage Learning

Reference books:

- H.Lal, Lt. Gen ,Wiley Eastern Limited, 1990 , *Total Quality Management*
- Bounds Greg , McGraw , *Beyond Total Quality Management*
- Kanishka Bedi, Oxford Higher Education, *Quality Management*

Web Sources

- <http://www.evans.swlearning.com>
- www.cengage.com/international