MARRI LAXMAN REDDY
INSTITUTE OF TECHNOLOGY AND MANAGEMENT
(AN AUTONOMOUS INSTITUTION)
(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)
Accredited by NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act,1956

COURSE CONTENT

TOTAL QUALITY MANAGEMENT								
I SEMESTER								
Course Code	**Category**	**Hours/Week**			**Credits**	**Maximum Marks**		
		L	**T**	**P**	**C**	**CIE**	**SEE**	**Total**
20MBA006C	**OPEN ELECTIVE**	3	1	-	4	30	70	100
Contact Classes:60	**Tutorial Classes:** Nil	**Practical Classes:** Nil				**Total Classes:** 60		
Prerequisite: Fundamentals of Management								

COURSE OVERVIEW:

This course introduces the principles and practices of Total Quality Management (TQM) in products and services. It covers quality philosophies, leadership, and customer satisfaction, including the Deming approach and strategic planning. Students learn continuous improvement techniques such as Kaizen, PDCA cycle, and reengineering. The syllabus includes tools and standards like ISO 9000/14000, Six Sigma, QFD, and FMEA. It also addresses Total Productive Maintenance, quality by design, and process optimization. Finally, students gain knowledge of management tools and quality strategies for effective implementation in organizations.

COURSE OBJECTIVES:

- Understand the principles, benefits, and leadership aspects of TQM.
- Learn continuous improvement techniques for enhancing quality and performance.
- Apply quality tools, standards, and methodologies such as ISO, Six Sigma, and FMEA.
- Develop skills in process optimization, Total Productive Maintenance, and quality by design.
- Gain practical knowledge of management tools and strategies for implementing TQM in organizations.

COURSE OUTCOMES: After Completion of the course, students should be able to

1. Master TQM principles, leadership traits, strategic frameworks, customer focus, service excellence, retention, and key Quality Gurus philosophies
2. Evaluate Supply chain process improvement techniques, supplier collaboration strategies, performance metrics, cost-quality analysis and its benchmarking
3. Learn IT-driven quality systems, ISO frameworks, auditing, environmental standards, health-safety practices, customer-centric design and Six Sigma methodology
4. Distinguish Qualitative tools by Design, FMEA and TPM on enhancement of product quality for reliability.
5. Evaluate quality strategies for Indian industries using key analytical tools.

UNIT-I PRINCIPLES AND PRACTICES - I

Introduction - Quality Gurus - Benefits of TQM – Quality Dimensions-Products and Services, Leadership and TQM, characteristics of Quality leaders. The Deming Philosophy - Quality councils - Strategic Planning - Customer Satisfaction-Customer perception of Quality - service Quality - Customer Retention

UNIT-II PRINCIPLES AND PRACTICES - II

Continuous process Improvement - the Juran trilogy, - The PDCA Cycle – Kaizen - Reengineering. Supplier Partnership – Partnering – Sourcing -Supplier Selection - Supplier rating- Performance Measures - Basic concept – Strategy - Quality cost - Bench marking - reasons for bench marking – Process - Understanding current performance - Pitfalls and criticism of benchmarking.

UNIT-III TOOLS AND TECHNIQUES - I

Information Technology-Computers and the quality functions-Information quality Issues-Quality management System-Benefits of ISO registration-ISO 9000 series Standards-Internal Audits. Environmental Management System-ISO 14000 series-Benefits of EMS- Relation to Healthy and safety- Quality Function Deployment-The voice of the Customer- Building a House of Quality-QFD Process, Six
Sigma.

UNIT-IV TOOLS AND TECHNIQUES - II

Quality by Design- Benefits-Communication Model-Failure Mode and Effective Analysis-Failure Rate, FMEA Documentation-The process of FMEA Documentation-Product liability-Proof and Expert Witness. Total Productive Maintenance- promoting the Philosophy and Training-Improvements and needs-
Autonomous Work groups

UNIT-V MANAGEMENT TOOLS

Management Tools – Introduction - Forced field Analysis - Tree diagram - Process decision Program Chart - Statistical Process Control - Cause and Effect diagram - Histogram-state of control – Process Capability- Experimental Design-Hypothesis -Orthogonal Design -Two factors and Full factors-Quality Strategy for Indian Industries - Quality Management in India,Latest Amendments in Total Quality Management

TEXT BOOKS:

- Joel E Ross : Total Quality Management, 3e, CRC press, 2015
- Dale H. Besterfeild, Carlon Besterfeild: Total Quality Management, Pearson Education, 2015
- Sridhara Bhat: Total Quality Management Texts and Cases, Himalaya, 2015.

REFERENCE BOOKS:

- Poornima M Charantimath Total Quality Management, Pearson Education, 2015
- Dr. S. Kumar , Total Quality Management, University Science Press, 2015
- Kanishka Bedi: Quality Management, Oxford, 2015.

ELECTRONIC RESOURCES:

1. http://www.sixsigmatutorial.com
2. http://www.scirp.org
3. http://www.sciencedirect.com
4. http://www.springerlink.com/content/f780526553631475

MATERIALS ONLINE:

1. Course template
2. Tutorial question bank
3. Tech talk and Concept Video topics
4. Open-ended experiments
5. Definitions and terminology
6. Assignments
7. Model question paper – I
8. Model question paper – II
9. Lecture notes
10. PowerPoint presentation
11. Drishya Siksha Sangrah (DSS) Videos