

TOTAL QUALITY MANAGEMENT

Course Code	23ME2702C	Year	IV	Semester	I
Course Category	Open Elective – IV	Branch	ME	Course Type	Theory
Credits	3	L-T-P	3-0-0	Prerequisites	Nil
Continuous Internal Evaluation	30	Semester End Evaluation	70	Total Marks	100

Course Outcomes: Upon successful completion of the course, the student will be able to

	Statement	Skill	Level	UNIT
CO1	Understand TQM principles and apply process control tools like control charts and acceptance sampling.	Understand	L2	1
CO2	Acquire knowledge of customer-focused strategies and implement benchmarking processes to enhance quality.	Understand	L2	2
CO3	Illustrate concepts of organizing for TQM and assess productivity improvements through quality circles and reengineering.	Understand	L2	3
CO4	Apply quality cost data to drive managerial decisions and quality improvements	Apply	L3	4
CO5	Understand and apply ISO 9000 certification procedures and assess their impact on business quality systems.	Apply	L3	5

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (H: High (3), M: Medium (2), L:Low (1))

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO1	2					3		3		3	2	3	2
CO2	2					3		3		3	2	3	2
CO3	2					3		3		3	2	3	2
CO4	2					3		3		3	2	3	2
CO5	2					3		3		3	2	3	2

Syllabus		
UNIT	Content	Mapped CO
I	Introduction: The concept of TQM, Quality and Business performance, attitude and involvement of top management, communication, culture and management systems. Management of Process Quality: Definition of quality, Quality Control, a brief history, Product Inspection vs, Process Control, Statistical Quality Control, Control Charts and Acceptance Sampling.	CO1
II	Customer focus and satisfaction: The importance of customer satisfaction and loyalty- Crating satisfied customers, Understanding the customer needs, Process Vs. Customer, internal customer conflict, quality focus, Customer Satisfaction, role of Marketing and Sales, Buyer – Supplier relationships. Bench Marketing: Evolution of Bench Marketing, meaning of Bench marketing, benefits of bench marketing,	CO2

	the bench marketing process, pitfalls of bench marketing.	
III	Organizing for TQM: The systems approach, Organizing for quality implementation, making the transition from a traditional to a TQM organizing, Quality Circles. Productivity, Quality and Reengineering: The leverage of Productivity and Quality, Management systems Vs. Technology, Measuring Productivity, Improving Productivity Re-engineering.	CO3
IV	3-D Object representation: spline representation, Hermitem THE COST OF QUALITY: Definition of the Cost of Quality, Quality Costs, Measuring Quality Costs, use of Quality Cost Information, Accounting Systems and Quality Management.	CO4
V	ISO 9000: Universal Standards of Quality: ISO around the world, The ISO9000 ANSI/ASQCQ-Series Standards, benefits of ISO9000 certification, the third party audit, Documentation ISO9000 and services, the cost of certification implementing the system	CO5

Learning Recourse(s)**Text Book(s)**

1. Total Quality Management / Joel E.Ross/Taylor and Franscis Limited.
2. Total Quality Management/P.N.Mukherjee/PHI.

Reference books

1. Beyond TQM / Robert L.Flood
2. Statistical Quality Control / E.L. Grant / McGraw Hill.
3. Total Quality Management- A Practical Approach/H. Lal
4. Quality Management/KanishkaBedi/Oxford University Press/2011
5. Total Engineering Quality Management/Sunil Sharma/Macmillan

Online Learning Sources

1. https://onlinecourses.nptel.ac.in/noc20_mg34/preview
2. https://onlinecourses.nptel.ac.in/noc21_mg72/preview