



GUJARAT TECHNOLOGICAL UNIVERSITY

Master of Business Administration (IEV), 3rd Semester

Subject Class: Elective

Subject Name: Quality Management

Subject Code: 1539420

With effective
from academic
year 2021-22

1. Learning Outcomes:

The student will understand quality from different perspectives, its relationship with productivity, different philosophies of quality. They will also understand the quality improvement tools.

2. Course Duration: The course duration is of 20 sessions of 60 minutes each.

3. Course Contents:

Module No:	Content	No. of Sessions	50 Marks (External Evaluation)
I	Defining and Understanding Quality: <ul style="list-style-type: none">• Perspectives of defining quality<ul style="list-style-type: none">○ Product, User, Value, Manufacturing, Customer, Transcendental○ Quality of design, performance and conformance• Costs of quality<ul style="list-style-type: none">○ Prevention, appraisal, internal and external failure, hidden failure costs• Customer Driven Quality<ul style="list-style-type: none">○ Meeting Customer needs and Expectations○ Kano Model• Quality and Productivity• Quality Philosophies<ul style="list-style-type: none">○ W. Edward Deming's philosophy<ul style="list-style-type: none">▪ Deming Cycle (PDCA)▪ 14 – point philosophy▪ Seven deadly diseases of management○ Philip B. Crosby's Philosophy<ul style="list-style-type: none">▪ Four absolutes of quality management▪ 14 points for quality improvement○ Joseph M. Juran's philosophy<ul style="list-style-type: none">▪ Quality trilogy	10	25
II	Quality Improvement Tools: <ul style="list-style-type: none">• Kaizen and Gemba Kaizen, 5S• Quality Function Deployment<ul style="list-style-type: none">○ Introduction, reasons to implement QFD○ QFD implementation (four phases)<ul style="list-style-type: none">▪ Product Definition▪ Product Development▪ Process Development▪ Process Quality Control○ House of Quality• Total Productive Maintenance<ul style="list-style-type: none">○ Overall Equipment Effectiveness<ul style="list-style-type: none">▪ Six losses▪ Underlying components – Availability,	10	25



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	<p>Performance, Quality</p> <ul style="list-style-type: none"> ▪ Calculating OEE, OEE benchmarks • Failure Mode and Effect Analysis <ul style="list-style-type: none"> ○ Design FMEA and Process FMEA ○ Why, When and How to perform FMEA ○ Stages of FMEA ○ Risk Priority Number (RPN) • Taguchi Loss Function <ul style="list-style-type: none"> ○ Concept ○ Nominal, smaller-the-better, larger-the-better ○ Formula • Benchmarking <ul style="list-style-type: none"> ○ Concept, reasons to benchmark, benchmarking process • Pareto diagrams, flowcharts, scatter plots 		
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4. Pedagogy:

- ICT enabled Classroom teaching
- Case study
- Practical / live assignment
- Interactive class room discussions

5. Evaluation:

Students shall be evaluated on the following components:

A	Internal Evaluation	(Internal Assessment- 30 Marks)
	• Continuous Evaluation Component	20 marks
	• Class Presence & Participation	5 marks
	• Quiz	5 marks
B	Mid-Semester examination	(Internal Assessment-20 Marks)
C	End –Semester Examination	(External Assessment-50 Marks)

6. Reference Books:

No.	Author	Name of the Book	Publisher	Year of Publication / Edition
1	R. Paneerselvam, P. Sivasankaran	Quality Management	PHI	2014
2	James R. Evans, William M. Lindsay	Managing for Quality and Performance Excellence	South Western	2015 / 9 th
3	James R. Evans	Quality and Performance Excellence	Cengage	2012 / 6 th
4	Kanishka Bedi	Quality Management	Oxford University Press	2006
5	Rajesh K. Jain, Himanshu M. Trivedi	Quality Management for Zero Defect and	ASQ India	2018 / 1 st



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		Zero Effect : A Compendium of Case Studies and Best Practices		
6	Howard Gitlow, Rosa Oppenheim, Alan Oppenheim, David Levine	Quality Management	McGraw Hill	2017 / 3 rd
7	James R. Evans	Total Quality Management	Cengage	2007
8	Sunil Sharma	Total Quality Management: Concepts, Strategy and Implementation for Operational Excellence	Sage	2018 / 1 st
9	Dale H. Besterfield, Carol Besterfield, Glen H. Besterfield, Mary Besterfield, Hemant Urdhwareshe, Rashmi Urdhwareshe	Total Quality Management	Pearson	2018 / 5 th
10	Poornima M. Charantimath	Total Quality Management	Pearson	2017 / 3 rd
11	Amitava Mitra	Fundamentals of Quality Control and Improvement	Wiley	2013 / 3 rd

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

7. List of Journals/Periodicals/Magazines/Newspapers / Web resources, etc.

1. International Journal of Productivity and Quality Management
2. Quality Management Journal
3. The TQM Journal
4. International Journal for Quality Research
5. Quality Management Magazine
6. Quality India Magazine
7. Quality Council of India - <https://www.qcin.org/>
8. National Quality / Business Excellence Awards in different countries: <https://www.nist.gov/document/nationalqualitybusinessexcellenceawardsindifferentcountriesxls>