

**SARDAR RAJA COLLEGES
SARDAR RAJA COLLEGE OF ENGINEERING**

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MICRO LESSON PLAN



SUBJECT NAME : TOTAL QUALITY MANAGEMENT
SUBJECT CODE : GE71
YEAR : IV YEAR
SEM : VII

**STAFF NAME : ARUN.V.S.PRADEEP,
AP/DEPT OF ECE**

GE71 TOTAL QUALITY MANAGEMENT

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1. INTRODUCTION

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Introduction - Need for quality - Evolution of quality - Definition of quality - Dimensions of manufacturing and service quality - Basic concepts of TQM - Definition of TQM – TQM Framework - Contributions of Deming, Juran and Crosby – Barriers to TQM.

2. TQM PRINCIPLES

9

Leadership – Strategic quality planning, Quality statements - Customer focus – Customer orientation, Customer satisfaction, Customer complaints, Customer retention -Employee involvement – Motivation, Empowerment, Team and Teamwork, Recognition and Reward, Performance appraisal - Continuous process improvement – PDSA cycle, 5s, Kaizen - Supplier partnership – Partnering, Supplier selection, Supplier Rating.

3. TQM TOOLS & TECHNIQUES I

9

The seven traditional tools of quality – New management tools – Six-sigma: Concepts, methodology, applications to manufacturing, service sector including IT – Bench marking – Reason to bench mark, Bench marking process – FMEA – Stages, Types.

4. TQM TOOLS & TECHNIQUES II

9

Quality circles – Quality Function Deployment (QFD) – Taguchi quality loss function – TPM – Concepts, improvement needs – Cost of Quality – Performance measures.

5. QUALITY SYSTEMS

9

Need for ISO 9000- ISO 9000-2000 Quality System – Elements, Documentation, Quality auditing- QS 9000 – ISO 14000 – Concepts, Requirements and Benefits – Case studies of TQM implementation in manufacturing and service sectors including IT.

TOTAL: 45 PERIODS

TEXT BOOK

1. Dale H.Besterfield, et al., “Total Quality Management”, Pearson Education Asia, Third Edition, Indian Reprint (2006).

REFERENCES

1. James R. Evans and William M. Lindsay, “The Management and Control of Quality”, (6th Edition), South-Western (Thomson Learning), 2005.
2. Oakland, J.S. “TQM – Text with Cases”, Butterworth – Heinemann Ltd., Oxford, Third Edition (2003).
3. Suganthi,L and Anand Samuel, “Total Quality Management”, Prentice Hall (India) Pvt. Ltd. (2006)
4. Janakiraman,B and Gopal, R.K, “Total Quality Management – Text and Cases”, Prentice Hall (India) Pvt. Ltd. (2006)

SUBJECT DESCRIPTION AND OBJECTIVES

DESCRIPTION

This subject will provide the student with the underlying principles and techniques of Total Quality Management (TQM) with emphasis on their application to technical organizations. Students will develop a working knowledge of the best practices in Quality and Process Management. Students will learn to view quality from a variety of functional perspectives and in the process, gain a better understanding of the problems associated with improving quality, also quality tools utilized in service and international/environment. Demonstrate how to design quality into product and services, describe the importance of developing a strategic plan for Total Quality Management and discuss the importance of “benchmarking”, as a means of identifying the choice of markets

AIM

The overall aim is for students to develop an understanding of total quality management principles, frameworks, tools and techniques for effective real life applications in both manufacturing and services.

This subject aims to impart knowledge on the quality management process and key quality management activities. Specifically it aims to: Compare and contrast the various tools used in quality management, comprehend the concepts of customer’s value, discuss the emerging tendencies toward global competitiveness, understand different perspectives on quality, comprehend six-sigma management and its tools.

OBJECTIVES

The main objective of this subject is to

1. Develop an understanding on quality management philosophies and frameworks
2. Develop in-depth knowledge on various tools and techniques of quality management
3. Learn the applications of quality tools and techniques in both manufacturing and service industry
4. Develop analytical skills for investigating and analysing quality management issues in the industry and suggest implement able solutions to those.

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**GE71 TOTAL QUALITY MANAGEMENT
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Hours	LECTURE TOPICS	READING
UNIT- 1. INTRODUCTION		
1	Introduction - Need for quality	T1
2	Evolution of quality - Definition of quality	T1
3	Dimensions of manufacturing and service quality	T1
4	Basic concepts of TQM	T1
5	Definition of TQM	T1
6	TQM Framework	T1
7	Contributions of Deming	T1
8	Juran and Crosby – Barriers to TQM	T1
9	Barriers to TQM (AV class)	T1
UNIT II TQM PRINCIPLES		
10	Leadership – Strategic quality planning	T1
11	Quality statements - Customer focus	T1
12	Customer orientation, Customer satisfaction, Customer Complaints, Customer retention	T1
13	Employee involvement – Motivation, Empowerment	T1
14	Team and Teamwork, Recognition and Reward	T1
15	Performance appraisal - Continuous process improvement	T1
16	PDSA cycle5s, Kaizen - Supplier partnership	T1
17	Partnering. (AV class)	T1
18	Supplier selection, Supplier Rating	T1
UNIT III TQM TOOLS & TECHNIQUES I		
19	The seven traditional tools of quality	T1
20	New management tools	T1
21	Six-sigma: Concepts	T1
22	Six-sigma: Methodology	T1
23	Applications to manufacturing	T1
24	Service sector including IT	T1
25	Bench marking	T1

Hours	LECTURE TOPICS	READING
26	Reason to bench mark	T1
27	Bench marking process	T1
28	FMEA – Stages, Types	T1
	UNIT IV TQM TOOLS & TECHNIQUES II	
30	Quality circles	T1
31	Quality Function Deployment (QFD) (AV class)	T1
32	Quality Function Deployment (QFD) (AV class)	T1
33	Taguchi quality loss function	T1
34	TPM – Concepts	T1
35	TPM – Concepts	T1
36	Improvement needs	T1
37	Cost of Quality	T1
38	Performance measures	T1
	UNIT V QUALITY SYSTEMS	
39	Need for ISO 9000	T1
40	ISO 9000-2000 Quality System	T1
41	Elements, Documentation	T1
42	Quality auditing	T1
43	QS 9000 – ISO 14000 – Concepts	T1
44	QS 9000 – ISO 14000 – Concepts	T1
45	Requirements and Benefits	T1
46	Case studies of TQM implementation in manufacturing sectors	T1
47	TQM implementation in service sectors including IT.	T1