

MOHAMMED SATHAK A J COLLEGE OF ENGINEERING

Siruseri IT park, OMR, Chennai - 603103

LESSON PLAN							
Department of Civil Engineering							
Name of the Subject	Total quality management			Name of the handling Faculty	T.MARY PRAVEENA		
Subject Code	GE 8077			Year / Sem	IV/VII		
Acad Year	2021-2022			Batch	2018-2022		
Course Objective							
To facilitate the understanding of Quality Management principles and process.							
Course Outcome							
The student would be able to apply the tools and techniques of quality management to manufacturing and services processes.							
Lesson Plan							
SL. No.	Topic(s)	T / R*	Periods Required	Mode of Teaching (BB / PPT / NPTEL / MOOC / etc)	Blooms Level (L1- L6)	CO	PO
		Book					
UNIT I (INTRODUCTION)							
1	Introduction ,Need for quality	T1	1	BB	L2	CO1	P7,P8,P12
2	evolution of quality, definitions of quality	T1	1	BB	L2	CO1	P8,P12
3	dimensions of product and service quality,basic concepts of TQM	T1	1	BB	L2	CO1	P8,P12
4	TQM framework,controbuton of Deming,Juran and crosby	T1	1	PPT	L2	CO1	P8,P12
5	barriers of TQM ,quality statement	T1	1	PPT	L2	CO1	P8,P12
6	customer focus, customer orientation	T1	1	PPT	L2	CO1	P7,P8,P12
7	customer satisfaction, customer complaints	T1	1	PPT	L2	CO1	P8,P12
8	customer retention	T1	1	BB	L2	CO1	P8,P12
9	cost of quality	T1	1	BB	L2	CO1	P8,P12
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if anySeminar and Assignment							
Evaluation method : Assignment and Direct interaction during Tutorials							
UNIT II (TQM PRINCIPLES)							
10	leadership, stratergic quality planning	R3	1	PPT	L2	CO3	P8,P12
11	quality counsils,employee involvement	R3	1	PPT	L2	CO3	P8,P12
12	motivation,empowerment	R3	1	BB	L2	CO3	P8,P12
13	Team and teamwork	R3	1	BB	L2	CO3	P8,P12
14	quality circles, recognition and rewards	R3	1	BB	L2	CO3	P8,P12
15	performance appraisal,continous process improvement	R3	1	PPT	L2	CO3	P8,P12
16	PDCA cycle,5S-Kaizen	R3	1	BB	L2	CO3	P8,P12
17	supplier partnership, partnering	R3	1	PPT	L2	CO3	P8,P12
18	supplier selection,supplier rating	R3	1	BB	L2	CO3	P8,P12
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any.....Seminar and Assignment							
Evaluation method : Assignment and Direct interaction during Tutorials							
UNIT III (TQM TOOLS AND TECHNIQUES -I)							
19	The seven trational tools of quality	T1	1	PPT	L3	CO4	P8,P12
20	New management tools	T1	1	PPT	L3	CO4	P8,P12
21	New management tools	T1	1	PPT	L3	CO4	P8,P12
22	six sigma - concept	T1	1	PPT	L3	CO4	P8,P12

23	application to manufacturing	T1	1	BB	L2	CO4	P8,P12
24	service sector including IT	T1	1	BB	L3	CO4	P8,P12
25	bench marking	T1	1	PPT	L3	CO4	P8,P12
26	bench marking process	T1	1	PPT	L3	CO4	P8,P12
27	FMEA-stages , types	T1	1	PPT	L3	CO4	P8,P12
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any.....Seminar and Assignment							
Evaluation method: Assignment and Direct interaction during Tutorials							
UNIT IV (TQM TOOLS AND TECHNIQUES -II)							
28	control charts	T1	1	PPT	L3	CO4	P8,P12
29	process capability, concept of six sigma	T1	1	PPT	L3	CO4	P8,P12
30	quality function development(QFD)	T1	1	PPT	L3	CO4	P8,P12
31	quality function development(QFD)	T1	1	PPT	L3	CO4	P8,P12
32	Taguchi quality loss	T1	1	PPT	L2	CO4	P8,P12
33	Taguchi quality loss	T1	1	BB	L2	CO4	P8,P12
34	TPM-concepts, improvement needs	T1	1	BB	L3	CO4	P8,P12
35	TPM-concepts, improvement needs	T1	1	BB	L3	CO4	P8,P12
36	Perfomance measure	T1	1	BB	L3	CO4	P8,P12
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any.....Seminar and Assignment							
Evaluation method : Assignment and Direct interaction during Tutorials							
UNIT V (QUALITY MANAGEMENT SYSTEMS)							
37	Introduction—Benefits of ISO Registration	R2	1	BB	L3	CO5	P7,P8,P12
38	ISO 9000 Series of Standards	R2	1	BB	L3	CO5	P8,P12
39	Sector-Specific Standards—AS 9100	R2	1	BB	L3	CO5	P8,P12
40	TS16949 and TL 9000	R2	1	BB	L3	CO5	P8,P12
41	ISO 9001 Requirements	R2	1	BB	L3	CO5	P8,P12
42	Implementation—Documentation—Internal Audits	R2	1	BB	L3	CO5	P8,P12
43	Registration	R2	1	PPT	L3	CO5	P8,P12
44	ENVIRONMENTAL MANAGEMENT SYSTEM: Introduction	R2	1	PPT	L3	CO5	P8,P12
45	ISO 14000 Series Standards—Concepts of ISO 14001—Requirements of ISO 14001—Benefits of EMS.	R2	1	PPT	L3	CO5	P8,P12
Suggested Activity: Assignment / Case Studies / Tuorials/ Quiz / Mini Projects / Model Developed/others Planned if any.....Seminar and Assignment							
Evaluation method : Assignment and Direct interaction during Tutorials							
Content Beyond the Syllabus Planned							
1	new technology for quality improvement						
2	Indian quality codes						
Text Books							
1	Dale H. Bester filed, et at., "Total quality Management", Third Edition, Pearson Education Asia, Indian Reprint, 2006.						
Reference Books							
1	James R. Evans and William M. Lindsay, "The Management and Control of Quality", 8thEdition, First Indian Edition, Cengage Learning, 2012.						
2	Suganthi.L and Anand Samuel, "Total Quality Management", Prentice Hall (India) Pvt. Ltd.,2006.						
3	Janaki Raman. B and Gopal.R.K., "Total Quality Management - Text and Cases", Prentice Hall (India) Pvt. Ltd., 2006						
Website/URL references							
1	www.tqm.org						
2	www.globaletqm.org						
Blooms Level							
Level 1 (L1) : Remembering		Lower Order Thinking	Fixed Hour Exams	Level 4 (L4) : Analysing		Higher Order Thinking	Projects / Mini Projects
Level 2 (L2) : Understanding				Level 5 (L5) : Evaluating			
Level 3 (L3) : Applying				Level 6 (L6) : Creating			

Mapping syllabus with Bloom's Taxonomy LOT and HOT														
Unit No	Unit Name					L1	L2	L3	L4	L5	L6	LOT	HOT	Total
Unit 1	INTRODUCTION					0	10	0	0	0	0	10	0	10
Unit 2	TQM PRINCIPLES					0	9	0	0	0	0	9	0	9
Unit 3	TQM TOOLS AND TECHNIQUES -I					0	9	0	0	0	0	9	0	9
Unit 4	TQM TOOLS AND TECHNIQUES -II					0	9	0	0	0	0	9	0	9
Unit 5	QUALITY MANAGEMENT SYSTEMS					0	8	0	0	0	0	8	0	8
Total						0	45	0	0	0	0	45	0	45
Total Percentage						0	100	0	0	0	0	100	0	100
CO PO Mapping														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1							2	3				3	1	
CO2							2	3				3	1	
CO3							2	3				3	1	
CO4							2	3				3	1	
CO5							2	3				3	1	
Avg							2	3				3	1	
Justification for CO-PO mapping														
CO1	It will be engage life long learning & ability to demonstrate on professional and ethical responsibility.													
CO2	It will be engage life long learning & ability to demonstrate on professional and ethical responsibility													
CO3	It will be engage life long learning & ability to demonstrate on professional and ethical responsibility and also it will give idea tools and techniques.													
CO4	It will be engage life long learning & ability to demonstrate on professional and ethical responsibility													
CO5	It will be engage life long learning & ability to demonstrate on professional and ethical responsibility and they can understand the TQM principles													
3		High level			2			Moderate level			1		Low level	
Name & Sign of Faculty Incharge :														
Name & Sign of Subject Expert :														
Head of the Department :														