

DEPARTMENT OF MECHANICAL ENGINEERING

Lesson Plan & Work-done Diary for AY:2025-26, Even Semester

Course with Code: Total Quality Management -BME613A			Faculty: Dr. Chethan S				Semester & Section: 6 th sem	
Class No.	Date planned (DD/MM)	Topics to be covered	TLP Planned	Class No.	Date of Conduction (DD/MM)	Topics Covered	TLP Executed	Remarks if any deviation
MODULE-1 Principles and Practice								
1		Introduction to the subject – Discussion on Course module and syllabus	PPT					
2		Principles and Practice: Definition, basic approach.	PPT					
3		Gurus of TQM.	PPT					
4		TQM Framework, awareness.	PPT					
5		Historical review, defining quality.	PPT					
6		Obstacles, benefits of TQM.	PPT					
7		Quality Management Systems: Introduction, benefits of ISO registration.	PPT					
8		ISO 9000 series of standards.	PPT					
9		ISO 9001 requirements.	PPT, Quiz					

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MODULE-2 Leadership

10	Leadership: Definition, characteristics of quality leaders.	PPT						
11	Leadership concept.	PPT						
12	Characteristics of effective people, ethics.	PPT						
13	The Deming philosophy.	PPT						
14	Role of TQM leaders, implementation.	PPT						
15	Core values, concepts and framework.	PPT						
16	Strategic planning communication.	PPT						
17	Decision-making	PPT Quiz						

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MODULE-3 Customer Satisfaction and Customer Involvement, Employee Involvement								
18		Customer Satisfaction: customer and customer perception of quality.	PPT					
19		Customer feedback, using customer complaints.	PPT, Videos					
20		Service quality, Translating needs into requirements	PPT					
21		Customer retention, and case studies.	PPT, Animations					
22		Employee Involvement – Motivation, employee surveys.	PPT					
23		Empowerment, teams, Suggestion system	PPT					
24		Recognition and reward, gain sharing.	PPT					
25		Performance appraisal, unions and employee involvement, case studies.	PPT, Quiz					

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MODULE-4 Continuous Process Improvement, Statistical Process Control								
26		Continuous Process Improvement: process, the Juran trilogy.	PPT					
27		Improvement strategies, types of problems.	PPT					
28		The PDSA Cycle, problem-solving methods.	PPT					
29		Kaizen, reengineering, six sigma, case studies.	PPT					
30		Statistical Process Control: Pareto diagram, process flow diagram.	Chalk & Board					
31		Cause and effect diagram, check sheets, histograms.	Chalk & Board					
32		Statistical fundamentals, Control charts, state of control, out of control process.	Chalk & Board					
33		Control charts for variables, control charts for attributes, scatter diagrams, case studies.	Chalk & Board, Quiz					

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MODULE-5

34	Total Productive Maintenance (TPM): Definition, Types of Maintenance	PPT						
35	Steps in introduction of TPM in an organization, Pillars of TPM	PPT						
36	5S, Jishu Hozen, Quality Maintenance, Planned Maintenance	PPT						
37	Quality by Design (QbD): Definition, Key components of QbD	PPT						
38	Role of QbD in Pharmaceutical Industry	PPT						
39	Benefits and Challenges of QbD	PPT						
40	Environmental Management Systems (EMS): Definition, Basic EMS	PPT						
41	EMS under ISO 14001, Costs and Benefits of EMS.	PPT, Quiz						

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	Activity	Planned	Actual	Remarks		
1	Theory Classes	41				
2	Assignments/ Quizzes/ Self-study	02/05				
3	Tutorials/ Extra classes	05				
4	Internal Assessments	03				
5	ICT based Teaching (% of usage in Curriculum)	90				
Planning			Execution			
Faculty Signature:		Faculty Signature:				
HoD Signature:		HoD Signature:				