

Course Number and Name	
BMA008 - TOTAL QUALITY MANAGEMENT	
Credits and Contact Hours	
3 & 45	
Course Coordinator's Name	
Dr.N.Janaki Manohar	
Text Books and References	
<p>TEXT BOOKS:</p> <ul style="list-style-type: none"> Dale H.Besterfield, et al., "Total Quality Management", Pearson Education, Inc.2003. (Indian reprint 2004). ISBN 81-297-0260-6. <p>REFERENCE BOOKS:</p> <ul style="list-style-type: none"> Evans. J. R. & Lindsay. W,M "The Management and Control of Quality", (5thEdition),South-Western (Thomson Learning), 2002 (ISBN 0-324-06680-5). Feigenbaum.A.V. "Total Quality Management", McGraw-Hill, 1991. Oakland.J.S. "Total Quality Management", Butterworth Heinemann Ltd., Oxford,1989. Narayana V. and Sreenivasan, N.S. "Quality Management – Concepts and Tasks",New Age International 1996. 5. Zeiri. "Total Quality Management for Engineers", Wood Head Publishers, 1991. 	
Course Description	
<ul style="list-style-type: none"> To introduce to the student about the basic terms related to quality and concepts of quality management To familiarize the student about the basic principles of total quality management To acquaint the student with the basic statistical tools used in process control To introduce to the student about the various tools used in implementing and checking total quality management To familiarize the student about the different quality systems used in auditing the quality of a company/industry/organization 	
Prerequisites	
Professional Courses	
Co-requisites	
NIL	
required, elective, or selected elective (as per Table 5-1)	
Course Outcomes (COs)	
CO1	By understanding about various quality terms, it will be helpful for the student to maintain quality in his/her organization
CO2	The student will be able to formulate new plans/procedures to be implemented to achieve the desired quality status by knowing about the various principles of quality management
CO3	The student will be able to analyze the periodical data in quality control using statistical tools
CO4	The total quality management tools will help the student to understand the procedures in

	measuring the quality of the organization/process and will also enable him/her to identify the parameters that are improving/depriving the quality
CO5	By knowing about the quality ISO systems, the student will be maintain processes/documentation properly so that the quality maintained by his/her organization gets recognized

Student Outcomes (SOs) from Criterion 3 covered by this Course

COs/SOs	a	b	c	d	e	f	g	h	i	j	k
CO1			M		H		M	H	M	L	L
CO2			M		H		M	H	M	L	L
CO3			M		H		M	H	M	L	L
CO4			H		H		M	H	M	L	L
CO5			H		H		M	H	M	L	L

List of Topics Covered

UNIT I INTRODUCTION	9
Definition of Quality, Dimensions of Quality, Quality Planning, Quality costs – Analysis Techniques for Quality Costs, Basic concepts of Total Quality Management, Historical Review, Principles of TQM, Leadership – Concepts, Role of Senior Management, Quality Council, Quality Statements, Strategic Planning, Deming Philosophy, Barriers to TQM Implementation	
UNIT II TQM PRINCIPLES	9
Customer satisfaction – Customer Perception of Quality, Customer Complaints, Service Quality, Customer Retention, Employee Involvement – Motivation, Empowerment, Teams, Recognition and Reward, Performance Appraisal, Benefits, Continuous Process Improvement – Juran Trilogy, PDSA Cycle, 5S, Kaizen, Supplier Partnership –Partnering, sourcing, Supplier Selection, Supplier Rating, Relationship Development, Performance Measures – Basic Concepts, Strategy, Performance Measure.	
UNIT III STATISTICAL PROCESS CONTROL (SPC)	9
The seven tools of quality, Statistical Fundamentals – Measures of central Tendency and Dispersion, Population and Sample, Normal Curve, Control Charts for variables and attributes, Process capability, Concept of six sigma, New seven Management tools.	
UNIT IV TQM TOOLS	9
Benchmarking – Reasons to Benchmark, Benchmarking Process, Quality Function Deployment (QFD) – House of Quality, QFD Process, Benefits, Taguchi Quality Loss Function, Total Productive Maintenance (TPM) – Concept, Improvement Needs, FMEA –Stages of FMEA.	
UNIT V QUALITY SYSTEMS	9
Need for ISO 9000 and Other Quality Systems, ISO 9000:2000 Quality System –Elements, Implementation of Quality System, Documentation, Quality Auditing, TS16949, ISO 14000 – Concept, Requirements and Benefits	