UNIVERSITY OF MAMAGEMENT AND TECHNOLOGY

SCHOOL OF TEXTILE AND DESIGN
MS Textiles

Course Specifications

TQM-620

Total Quality Management

Fall …..

COURSE SPECIFICATIONS

Basic Information			
Course Title**:**	**Total Quality Management**		
Course Code**:**	TQM-620		
Course credits/week**:**	Theory:03	Lab: 00	Total: 03
Pre-requisite(s)**:**	None		
Co-requisite(s)**:**	None		
Program(s) on which the course is given**:**	MS Textiles		
Is the course major or minor element of the program?	Major: ☑	Minor:☐	
School offering the program**:**	School of Textile and Design		
Department offering the course**:**	Department of Textile Engineering		
Academic year/level**:**	1st year		

Overall Aims of the Course
This course is designed to provide a broad conceptual and somewhat theoretical perspective of total quality management principles that will serve as foundation for future textile and apparel professionals. The goal is to assist textile and apparel students to better understand standards such as ISO 9000, ISO 14000 etc. and the complex decision making involved in producing textile apparel products to meet the needs of the target customer. The intent is to provide a global and integrated perspective that will provide students with a comprehensive understanding of the industry and to be well-prepared about information such as American Customer Satisfaction Index (ACSI), business excellence approaches like Balanced Score Card, criteria for Malcolm Baldrige National Quality Award and information about other national awards. Brief information about Design for Six Sigma (DFSS), Failure Mode and Effect Analysis (FMEA) for Automotive Industry Action Group (AIAG), Measurement Systems Analysis, Statistical Process Control, Graphical tools and illustrations are included to strengthen the knowledge of students.

Key Skills and Attributes to be Developed by the Course	
Apparel Knowledge	An ability to apply basic knowledge of quality management in producing conventional and new apparel products
Problem Analysis	An ability to identify and formulate research literature and analyze problems using basic principles management sciences
Communication	An ability to communicate effectively, orally and in writing, with textile community and society
Lifelong Learning	An ability to recognize importance of lifelong learning and pursue it in the broader context of innovation and technological development.

Course Schedule		
Week	**Module**	**Intended Learning Outcomes**

1	**Introduction**	At the end of this week, the students will be able to know about: • Definitions of quality • David Garvin 5 approaches of defining Quality • 8 Dimensions of Product Quality • American National Standards ANSI/ASQC A3 Quality Systems Terminology • Factors influencing consumers perception of quality
2	**Management of Quality**	At the end of this week, the students will be able to know about: • Systems for quality management • Methods of assuring quality • Costs and benefits of quality programs
3	**Service Quality**	At the end of this week, the students will be able to know about: • Customer Perception of Quality • Customers' Needs • Service Quality GAP model
4	**Total Quality Management**	At the end of this week, the students will be able to explain about: • Understanding TQM& Its Concepts • Quality Control & Quality Assurance
5	**Quality of Product Labeling**	At the end of this week, the students will be able to know about • Quality of labeling information • Optional information • Statutory requirement. • Labeling information helpful in maintain quality of textile product.
6	**Role of Testing in Product Quality Assurance**	At the end of this week, the students will be able to know about • Testing and Quality Control

		• Quality Control laboratory • Reasons to perform testing of textiles? • How testing help in maintain quality of product. • Various aspects of quality assurance
7	**Statistical Quality Tools**	At the end of this week, the students will be able to know about various tools for quality control such as • Pareto Chart • Cause & Effect Diagram • Histogram • Scatter Diagram • Run Chart • Control Charts
Mid-semester Examination		
9	**Types of Waste**	At the end of this week, the students will be able to discuss: • Classes of Wastages
10	**Total Waste Elimination**	At the end of this week, the students will be able to explain: • Methods of Total Waste Elimination
11	**Six Sigma and Lean Management**	At the end of this week, the students will be able to understand: • Introduction to six sigma • Introduction to Lean method • Combined approach of Lean Sigma • Steps for the implementation of six sigma
12	**ISO 9000** **ISO 14000**	At the end of this week, the students will be able to understand: • ISO 9000 • ISO 14000

End-semester Examination

Required Learning Resources	
Text Material and Text Book(s):	1. Class Lectures notes, Presentations and Assignments. 2. B. Purushothama,Work Quality Management in the textile industry, Woodhead Publishing India in textiles. 3. B.P. Saville, The Textile Institute,UK. Physical testing of textile. Woodhead Publisher Ltd. USA 4. Dale H. Besterfield.2011. Total Quality Management. Pearson Education, India 5. B Murlikrishna. 2013. Total Quality Management. Excel Books, India

Facilities Required for Teaching and Learning
-Class room -Board -Projector -Recommended books

Assignments Schedule			Quiz Schedule	
No.	**Week Assigned**	**Week Due**	**No.**	**Week**
1	2, 4	3, 5	1, 2, 3	2, 5, 7
2	10, 13, 14	11, 14, 15	4, 5	11,13

Weighting of Assessments	
Quizzes	12.50 %
Assignments	12.50 %
Mid-semester examination	25.00 %
End-semester examination	50.00 %

Grading Criteria

Letter Grade	Percentage Marks	GPA
A	**86.25 and above**	**4.00**
A-	**82.50 – 86.24**	**3.70**
B+	**78.75 – 82.49**	**3.30**
B	**75.00 – 78.74**	**3.00**
B-	**71.25 – 74.99**	**2.70**
C+	**67.50 – 71.24**	**2.30**
C	**63.75 – 67.49**	**2.00**
C-	**60.00 – 63.74**	**1.70**
F	**59.99 or lower**	**0**

Course Specifications Developed By:	**Reviewed By (Chairman):**
Dr. Tayyab Naveed	
Date:	**Date:**