

## IE-505 Total Quality Management (TQM)

<b>Lecture Schedule</b>	Thu: 06:30-09:00 pm	<b>Semester</b>	Fall 2014
<b>Credit Hours</b>	Three	<b>Pre-requisite</b>	---
<b>Instructor</b>	Dr. Khawaja Mustafa Amin Haider	<b>Contact</b>	<a href="mailto:amin.haider@umt.edu.pk">amin.haider@umt.edu.pk</a>
<b>Office</b>		<b>Office Hours</b>	
<b>Teaching Assistant</b>	None	<b>Contact</b>	N/A
<b>Course Description</b>	Total quality management is a philosophy that aligns the effort of the entire organization towards producing quality, primarily for the achievement of customer satisfaction. The philosophy finds its origin in the teaching of Quality Gurus and evolved as an independent system based on a set of principles. These principles provide the basic guidelines for implementing different frameworks and techniques related to quality efforts. The course primarily focuses on these teachings and principles to investigate the different tools and techniques available for institutionalizing a system of quality.		
<b>Expected Outcomes</b>	The student will have the required theoretical appreciation to identify quality effort as a system that prevails throughout the organization rather than the traditional perspective contained within a specific department. The student shall also exhibit the necessary faculty for selecting, applying and interpreting the results of the different decision-making and statistical based tool for a specified quality related scenario.		
<b>Textbooks</b>	<ol style="list-style-type: none"> <li>1. <i>The Management and Control of Quality</i> by J R Evans and W M Lindsay</li> <li>2. <i>Total Quality Management</i> by D H Besterfield et al.</li> </ol>		
<b>Grading Policy</b>	<ul style="list-style-type: none"> <li>• Assignments and Quizzes: 10%</li> <li>• Presentation: 15%</li> <li>• Midterm [In Class]: 25%</li> <li>• Final: 50%</li> </ul>		

### Lecture Plan

Weeks (Lectures) *	Topics	Readings
1	Course organization Introduction to the scope of the subject <ul style="list-style-type: none"> <li>• Quality and TQM philosophy</li> <li>• Traditional vs. TQM approach</li> </ul>	

2-4	<b>Quality Gurus</b> <ol style="list-style-type: none"> <li>1. The Early Americans <ul style="list-style-type: none"> <li>○ Deming</li> <li>○ Juran</li> <li>○ Feigenbaum</li> </ul> </li> <li>2. Post-war Japanese <ul style="list-style-type: none"> <li>○ Ishikawa</li> <li>○ Taguchi</li> <li>○ Shingo</li> </ul> </li> <li>3. Contemporary Western-wave <ul style="list-style-type: none"> <li>○ Crosby</li> <li>○ Peters</li> <li>○ Moller</li> </ul> </li> </ol>	
5-7	TQM Principles <ul style="list-style-type: none"> <li>• Leadership</li> <li>• Customer Satisfaction</li> <li>• Process orientation</li> <li>• Continuous improvement and Learning</li> <li>• Empowerment and Teamwork</li> <li>• Management by Facts</li> </ul> Acceptability and Further issues	
	<b>MIDTERM</b>	
9-10	TQM Tools and Techniques – I <ul style="list-style-type: none"> <li>• Statistical Process Control</li> <li>• Experimental Design and Analysis</li> <li>• Quality Function Deployment</li> </ul>	
11-12	TQM Tools and Techniques – II <ul style="list-style-type: none"> <li>• Cost of Quality</li> <li>• Benchmarking</li> <li>• Quality by design</li> <li>• Failure mode and effect analysis</li> </ul>	
13	Quality frameworks and awards Presentations – I	
14	Presentations – II Review of subject	
	<b>Final Exam</b>	

\* - Lecture Distribution is Tentative