



UNIVERSITI TEKNOLOGI MARA

CMT620: BASIC QUALITY MANAGEMENT TOOLS

Course Name (English)	BASIC QUALITY MANAGEMENT TOOLS APPROVED
Course Code	CMT620
MQF Credit	2
Course Description	This course introduces students to the concepts, tools and techniques used in Total Quality Management, quality culture, effective team structures, measurement of quality and competitiveness in an industrial environment. It provides students with the knowledge and techniques required to improve product quality and process efficiency by identifying and measuring production process variability which, if not successfully addressed, leads to inconsistent product quality, costly wastage, non-standardization and other reliability and productivity problems. A brief review of the fundamentals of quality improvement basic tools and their applications in quality management is provided, and various measurement and control techniques - for example, pareto diagram and control charts, are presented.
Transferable Skills	Written report blended learning. Applying Quality Improvement Tools
Teaching Methodologies	Lectures, Blended Learning
CLO	CLO1 Integrate and appraise various quality definition and dimension in process design, development and improvement CLO2 Utilize information and creativity in the critical thinking process of planning, design development and improvement of quality CLO3 Demonstrate social skills quality to complete multiple tasks within a specified time CLO4 Apply basic quality tools to perform quality improvement
Pre-Requisite Courses	No course recommendations
Topics	
1. Introduction to Quality 1.1) Quality definition 1.2) Perspective of Quality 1.3) Quality Dimension 1.4) Quality Engineering definition 1.5) Critical to Quality 1.6) Historical Review and time line of quality revolution 1.7) Quality Gurus - Deming, Crosby, Juran 1.8) Role of management towards quality	
2. Total Quality Management (TQM) and Quality Improvement 2.1) TQM Principle and Practice 2.2) TQM Tools and Techniques 2.3) Quality Improvement (an overview)	
3. Quality Improvement Basic Quality Tools 3.1) Introduction to tools 3.2) Check sheet, Graphs and Histogram 3.3) Pareto Analysis, Cause and Effect Diagram, Scatter Plot 3.4) Control Charts	
4. Guest Speaker – sharing session 4.1) Invited speaker from industry to talk about their quality system and practices	

Assessment Breakdown		%		
Continuous Assessment		100.00%		

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Assignment 1	20%	CLO3
	Assignment	Assignment 2	20%	CLO4
	Test	Test 1	30%	CLO1
	Test	Test 2	30%	CLO2

Reading List	Recommended Text
	<ul style="list-style-type: none"> Douglas C. Montgomery 2019, <i>Introduction to Statistical Quality Control</i>, 8 Ed., John Wiley & Sons, Inc. United States of America [ISBN: 978111965711] Dale H. Besterfield 2009, <i>Quality Control</i>, 8 Ed., Pearson Prentice Hall United States of America [ISBN: 9780135000953]

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources