

# QMT - QUALITY MANAGEMENT (QMT)

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## QMT 2003 Total Quality Management (3-1-3)

Covers the principles, concepts and philosophies related to total quality management. Examines why quality management is fundamental to strategic management and its importance to organisational excellence. Identifies and analyses how quality concepts such as leadership and partnership can lead to organisational excellence, superior value, and global competitiveness.

## QMT 2103 Quality Standards and Excellence Models (3-1-3)

Provides fundamental tools, models and strategies for continuous and breakthrough improvement in organisations through understanding and applying current practices in quality standards and business excellence models. Examines ISO standards and Quality Management systems in part one and international and local excellence models in part two. Provides an organisational view of performance excellence, as reflected in the ISO standards, Malcolm Baldrige criteria, EFQM framework, complemented by UAE-based models.

**Prerequisites:** QMT 2003

## QMT 3003 Quality Management Tools (3-1-3)

Examines the application of tools and methods related to quality improvement and management methods implemented in organisations for excellence and quality. Focuses on skills to create cause and effect diagrams, Pareto charts, statistical process control, CEDAC, and six sigma. Addresses employee involvement and management commitment towards using quality tools and quality improvement methods in a continuous manner.

**Prerequisites:** QMT 2103

## QMT 3013 Business Process Management (3-1-3)

Develops an in-depth understanding of business processes and examines the workflow, equipment needs, and implementation requirements for a particular process. The course examines the roles and responsibilities in strategic realignment, as well as the tools, methods, techniques and templates to map, plan and implement processes. The relationship with information systems, workflows and automation strategies are examined to achieve success with the process design.

**Prerequisites:** MGT 1003

## QMT 4003 Service Quality Management (3-1-3)

Provides an integrated approach to service quality management addressing the factors of development of long-term customer relationships as a pathway to achieving excellence and quality. Guides learners through service design, delivery and recovery to evaluate different service models such as Service Gaps, Service Quality (SERVQUAL) and Customer Relationship Management (CRM) to implement strategies that support business processes and development.

**Prerequisites:** QMT 2003

## QMT 4013 Advanced Strategic Management (3-1-3)

Examines conceptual frameworks such as VRIO to diagnose and manage strategic capabilities and key drivers of competitive advantage. Evaluates business and corporate strategy based upon the firm's unique proposition of value, profit and people and discusses organizational structures as levers of implementation of the strategy.

**Prerequisites:** HRM 3013

## QMT 4033 Statistical Quality Control I (3-1-3)

Provides in-depth analysis of statistical models applied in DMAIC (Define, Measure, Analyze, Improve, Control) problems, including statistical models to analyze and make inferences for quality control and improvement applying probability distributions, probability plots and point estimations for uni and multi-variate samples.

**Prerequisites:** STS 3113

## QMT 4053 Lean Management (3-1-3)

Provides fundamental knowledge about Lean principles, concepts, tools and methods to achieve sustainable improvement in the organisation, covering diagnostics tools, Lean transformation practices, and the human and technical aspects of the Lean transformation. Enables learners to demonstrate the skills, competencies and mindset of a Lean Thinker from through the use of case studies and individual or/and group exercises simulating real world business applications.

**Prerequisites:** QMT 2003

## QMT 4103 Agile Project Management (3-1-3)

Agile Project Management course provides the essential knowledge of agile principles, methods, tools, and techniques used in change driven adaptive projects. This course provides practical hands-on experience in various agile approaches such as Scrum, Lean, and Kanban, emphasizing value-driven delivery. Students work in groups with agile roles such as Scrum Master, Product Owner, and Development Team to create project management artifacts simulating the real-world environment.

**Prerequisites:** OPM 2103

## QMT 4113 Experimental Design (3-1-3)

Provides in-depth analysis of the techniques to plan and design experiments to check and validate empirical models for process development and improvement, presenting the results of statistically designed experiments and develop models that are effective for continuous quality management in an organization.

**Prerequisites:** QMT 4033

## QMT 4123 Six Sigma (3-1-3)

Provides knowledge and practical skills of six-sigma concepts through the application of related tools and techniques. The student will be able to plan, communicate and manage six sigma processes in an organisation after the completion of the course. Introductory topics on Green belt and Black belt will prepare students for industry certifications, complement their ability to analyse critical operations and evaluate process capabilities of organisations.

**Prerequisites:** QMT 3003

## QMT 4133 Statistical Quality Control II (3-1-3)

Provides an in-depth study of effective statistical process monitoring and control using time-weighted and other advanced control chart techniques, as well as the application of multivariate process monitoring, adjustment and control tools. Learners improve skills in process design and improvement with designed experiments that lead to process optimisation, and acceptance sampling.

**Prerequisites:** QMT 4033

## QMT 4143 Value Stream Management (3-1-3)

Provides in-depth knowledge about lean concepts and application of tools and techniques related to value stream mapping. Examines the identification of value streams, planning, and application of lean management concepts at three stages of lean (i.e. demand, flow and levelling). Using critical evaluation students will be able to identify value stream processes which are most beneficial to the business, apply and map lean metrics into a future state of efficiency and provide recommendations for value streaming and sustainable processes.

**Prerequisites:** QMT 2003, QMT 4053

**QMT 4153 Quality Auditing (3-1-3)**

Examines quality auditing, covering models, techniques and methodologies necessary to understand, plan, deploy, and evaluate quality audit processes as part of a quality management system. Focuses on professional standards, technical skills and core competencies of the quality auditor, applicable to the preparation, performance, reporting, follow-up and closure of the quality audit process.

**Prerequisites:** QMT 3003

**QMT 4203 Quality Management Research Project (2-2-3)**

This course allows students to demonstrate their breadth of learning by applying conceptual and theoretical knowledge obtained in the quality management program to analyze, address and proffer solutions to a real-life organizational problem. The purpose is to integrate and apply knowledge and skills learned in preceding courses to identify opportunities for the application and critical review of theory and practice in a business environment. The capstone project will enable students to hone their experience in planning, strategic thinking, communication and leadership skills.

**Prerequisites:** QMT 4003