

Liverpool John Moores University

Title: Quality Management Techniques
Status: Definitive
Code: **7061ENG** (118215)
Version Start Date: 01-08-2018

Owning School/Faculty: Maritime and Mechanical Engineering
Teaching School/Faculty: Maritime and Mechanical Engineering

Team	Leader
Jun Ren	Y

Academic Level: FHEQ7 **Credit Value:** 10 **Total Delivered Hours:** 38
Total Learning Hours: 100 **Private Study:** 62

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	24
Tutorial	12

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	exam		70	2
Essay	essay		30	

Aims

To analyse and apply principles and techniques of quality management within a modern manufacturing environment.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically appraise the principles and implementation of total quality management systems.
- 2 Apply recognized techniques of quality management to a typical manufacturing process
- 3 Critically evaluate and reflect on the impact of improved quality techniques on business performance
- 4 Apply the six sigma philosophy to an Industrial process

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Exam	1	2	3	4
Assignment	1	2	3	4

Outline Syllabus

Background and evolution of the quality movement.

Quality gurus and the cost of quality.

Quality control procedures.

Process capability and statistical process control techniques.

The continuous improvement environment, quality tools and problem solving techniques.

Teamwork, working relationships and leadership.

Quality management systems - standards and models: ISO9000:2000, the EFQM business excellence model and European Quality Awards.

Business improvement techniques - FMEA, QFD and value management.

The six sigma approach, its methodologies.

The DMAIC project model and six sigma process mapping.

Learning Activities

This module is taught through a combination of lectures, tutorial, small group work, video case studies and workshops.

Notes

This module focuses on the practical application of quality management and project management techniques used in both service and manufacturing industry. It includes the effective management of people in projects and change