Liverpool John Moores University

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Title:	PROCESS PERFORMANCE IMPROVEMENT
Status:	Definitive but changes made
Code:	**7015BUSMA** (116154)
Version Start Date:	01-08-2017
Owning School/Faculty:	Academic Portfolio
Teaching School/Faculty:	Academic Portfolio

Team	Leader
Alex Douglas	Y

Academic Level:	FHEQ7	**Credit Value:**	15	**Total Delivered Hours:**	37
Total Learning Hours:	150	**Private Study:**	113		

Delivery Options
Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Seminar	36

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	EXAM	Open book multiple choice examination	25	1
Essay	ESSAY	Case study - individual assignment (3000 words).	75	

Aims

1. To introduce students to the role of organizational processes in business performance in both services and manufacturing.
2. To introduce students to process performance measures including efficiency, effectiveness and economic measures.
3. To introduce students to the concepts of Six Sigma and Lean and their associated

tools and techniques as means to improving process performance.

Learning Outcomes

After completing the module the student should be able to:

1	Apply Lean principles to a selected project in a critical way.
2	Critically apply the DMAIC methodology and its associated Six Sigma tools to a selected project.
3	Identify, analyse and evaluate business process problems independently, make reasonable judgments, draw valid conclusions and make practical recommendations as to process improvement.

Learning Outcomes of Assessments

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

EXAM	1	2	
ESSAY	1	2	3

Outline Syllabus

1. The business case for Lean and Six Sigma;
2. Understanding processes and their role in business performance;
3. What is Six Sigma and Six Sigma performance;
4. Introduction to the DMAIC methodology;
5. Introduction to Lean Thinking;
6. Lean versus Six Sigma - Differences and Similarities;
7. An introduction to Lean Metrics – Takt Time, Cycle Time and OEE (Overall Equipment Effectiveness);
8. Tools and Techniques for continuous improvement and their use within the Six Sigma DMAIC;
9. An introduction to Six Sigma metrics – costs of quality, defects per million opportunities (DPMO), Sigma Quality Level (SQL) and Yield;
10. Six Sigma project selection;
11. The DMAIC methodology in detail;
12. Variation and Statistical Process Control (SPC);
13. Critical Success Factors for Lean Six Sigma.

Learning Activities

Each session will involve a lecture followed by a practical workshop where students will gain practice in the application of various Lean and Six Sigma tools and techniques including Process Mapping, identification of value-adding and non-value adding activities, calculations including Takt Time, Cycle Time and OEE and the identification and allocation of costs of quality.

Notes

Lean and Six Sigma methodologies both individually and combined are proven methodologies to identify and eliminate defects, waste, rework and other failures that results in financial savings and improved customer satisfaction for manufacturing and service industries including Healthcare and Financial Services. Qualified / Certificated Six Sigma practitioners are highly employable and command high salaries in the organizations for which they work. This module is designed to give you the necessary understanding and tools and techniques equivalent to Lean Six Sigma Yellow Belt certification. All students who achieve more than 60% in the examination element of the assignment will receive a Lean Six Sigma Yellow Belt Certificate of performance.