APPROVED

QUAL S7Z01: Quality Management

Module Details

Module Code:	QUAL S7Z01
Full Title:	Quality Management APPROVED
Valid From::	Semester 1 - 2019/20 (June 2019)
Language of Instruction:	
Duration:	1 Semester
Credits::	5
Module Owner::	Richard Crowley
Departments:	Unknown
Module Description:	To provide the student with the necessary knowledge and understanding of the tools, processes and systems used to implementation and maintain a compliant Quality Management System thus allowing him/her to operated effectively and efficiently in a highly regulated and controlled manufacturing and/or service environment.

Module Learning Outcome	
On successful completion of this module the learner will be able to:	
#	**Module Learning Outcome Description**
MLO1	Explain the evolution of Quality, the contribution of Quality Guru's to the systematic and continuous improvement in Quality Systems and Leadership.
MLO2	Evaluate how the concepts of Right First Time, Zero Defects and other preventative techniques can be used to continually improve quality.
MLO3	Illustrate the concepts/dynamics underpinning Quality Leadership and using a Kaizan Team based approach to Continuous Improvement (CI).
MLO4	Evaluate different Traceability formats and design a basic Backward Traceability system..
MLO5	Discuss how to design, document and assess (audit) a basic hierarchal QMS.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is strongly recommended before enrolment in this module. You may enrol in this module if you have not acquired the recommended learning but you will have considerable difficulty in passing (i.e. achieving the learning outcomes of) the module. While the prior learning is expressed as named DkIT module(s) it also allows for learning (in another module or modules) which is equivalent to the learning specified in the named module(s).*
No recommendations listed

Module Indicative Content
The Evolution of Quality The principles behind and differences between Inspection, Quality Control (QC), Quality Assurance (QA) and Quality Management (QM). The philosophy behing the Prevention e.g. Right First Time (RFT) and Zero Defects (ZD). Quality definitions including The Eight Dimensions of Quality.
Quality Gurus The methodologies developed and applied by Deming e.g. SPC, PDCA, Principle of Transformation etc. Introduction to Variation: types of variation (natural and special), sources of variation. The concepts of In/Out of Control and Capable/Not Capable processes. How to apply a systematic approach to Prevention.
The Seven Quality Improvement Tools (7 QIT) Introduction to the 7 QIT i.e. Flowcharts, checksheets, paretos, histograms, cause and effect (C&E) or fishbone diagrams, scatter plots and SPC.
Leadership & Empowerment Designing a Vision and Mission statement. Fundamentals and attributes of effective leadership. How to Transform an Organisation i.e. change management. What is the future role of leaders.
Teams The philosophy and operational principles underpinning the Kaizan Team approach to CI. Team roles i.e. Leader, Member, facilator etc. How to design team agreements. Hoshin planning.
Basic Quality Management Systems The basic Quality Management System (QMS) i.e. Quality Manual, Policy, Objectives, Standard Operating Procedures (SOP's), Records and Specifications. Documentn control and obsolescence.
Traceability Systems Batch definitions, Forwards and Backwards traceability systems. Batch and Component traceability. Product recall process. ISO traceability requirements. How to design batch/traceability number.
Good Manufacturing Practice (GMP) Regulatory requirements. Evolution of GMP. cGMP and the impact on premis design. Process Validation: IQ,OQ,PQ.
Auditing Audit definitions. Types of audits i.e. Process Vs Checklist approach. Effective auditor characterists. Auditing methodologies. The corrective action (CA) and preventative action (PA) process.

Module Assessment

Assessment Breakdown	%
Course Work	20.00%
Project	30.00%
Final Examination	50.00%

Module Special Regulation

Assessments

Full Time On Campus

Course Work

Assessment Type	Open-book Examination	**% of Total Mark**	20
Marks Out Of	0	**Pass Mark**	0
Timing	S1 Week 6	**Learning Outcome**	1,2
Duration in minutes	0		

Assessment Description
n/a

Project

Assessment Type	Group Project	**% of Total Mark**	30
Marks Out Of	0	**Pass Mark**	0
Timing	n/a	**Learning Outcome**	1,2,3,4,5
Duration in minutes	0		

Assessment Description
Will assess at a minimum one of the five learning outcome.

No Practical

Final Examination

Assessment Type	Formal Exam	**% of Total Mark**	50
Marks Out Of	0	**Pass Mark**	0
Timing	End-of-Semester	**Learning Outcome**	1,2,3,4,5
Duration in minutes	0		

Assessment Description
Final Examination will assess at a minimum learning outcomes not assessed in either the Open Book Exam or the Group Project

Module Workload

Workload: Full Time On Campus					
Workload Type	*Contact Type*	*Workload Description*	*Frequency*	*Average Weekly Learner Workload*	*Hours*
Lecture	Contact	No Description	Every Week	4.00	4
Tutorial	Contact	No Description	Every Week	1.00	1
Independent Study	Non Contact	No Description	Every Week	2.00	2
Directed Reading	Non Contact	No Description	Every Week	2.00	2
				Total Weekly Learner Workload	9.00
				Total Weekly Contact Hours	5.00

This module has no Part Time On Campus workload.

Module Resources

Recommended Book Resources

Deming, W, Edward. Out of the Crisis, 1st. McGrath Hill, 1982, [ISBN: 978-0911379013].

Orsins, Nilsson, Joyce. (2012), The Essential Deming, McGrath-Hill, [ISBN: 978-0071790222].

Juran, M Joseph & Defeo, Joseph. (2010), Jurans handbook on Quality, 6th. McGrath-Hill, [ISBN: 978-0071629737].

David Hoyle. (2009), ISO 9000 Quality System Handbook, 6th. Butterworth-Heinemann, [ISBN: 978-1856176842].

Tricker, Ray. (2013), ISO 9000:2008 for Small Businesses, 5th. Routledge, [ISBN: 970-0-4-415-70390-1].

Ticker, Ray. (2005), ISO 9001:2000 Audit procedures, 2nd. Routledge, [ISBN: 978-0-7506-6615-2].

Imai, Masaaki. (1997), Gemba Kaizan, 1st. McGrath-Hill, [ISBN: 978-0070314467].

Oakland, John. (2004), Oakland on Quality Management, Routledge, [ISBN: 9780750657419].

Gitlow, H. (1995), Tools and Methods for Improvement of Quality 2nd Ed., 2nd. McGrath Hill, Irwin, [ISBN: 0256106657].

ASQ Quality Management division. (2006), ASQ Quality Management division, 2nd. ASQ Quality Press, [ISBN: 978-0873896900].

Supplementary Book Resources

J.Beckford. (2009), Quality: A Critical Introduction, 3nd. Routledge, [ISBN: 978-0415259185].

Womac P. James, Jones T. Danial, Roos Danial. (2007), The Machine that Changed the World, Reprint. Free Press, [ISBN: 978-0743299794].

This module does not have any article/paper resources

Other Resources

http://www.excellence-ireland.ie.

http://www.iso.ch.

http:///www.nsai.ie/.

http://www.icbe.ie.

http://www.enterprise-ireland.com.

http://www.efqm.org.

http://www.globalbenchmarking.org.

http://www.quality-foundation.co.uk.

http://www.niqc.com.

http://www.eoq.org.

http://www.cqm.org.

http://www.european-quality.co.uk.