MGMT H4712: Operations Management

Module Title:	Operations Management
Language of Instruction:	English

Credits:	5

NFQ Level:	8

Module Delivered In	No Programmes

Teaching & Learning Strategies:	Students will perform as actors in various demonstrations of operations management techniques. Classes will take place in a laboratory environment to allow experiments and computational numerical analysis to take place.

Module Aim:	The aim of this course is to provide students with an understanding and justification of operations management techniques as well as practical computing techniques that are used to design, analyse and improve operational systems within organisations.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Appreciate the benefits and effects of introducing Lean Operations in a supply chain and its relationship with other production control techniques
LO2	Analyse project schedules with the use of Project Diagrams and the Critical Path Method (CPM).
LO3	Perform and critically assess Facility Location and Layout Heuristics
LO4	Demonstrate the use of statistical control charts and other quality systems in the investigation and communication of quality issues.
LO5	Illustrate how Demand and Supply matching techniques can improve operational efficiencies.

Pre-requisite learning
Module Recommendations *This is prior learning (or a practical skill) that is recommended before enrolment in this module.*
No recommendations listed
Incompatible Modules *These are modules which have learning outcomes that are too similar to the learning outcomes of this module.*
No incompatible modules listed
Co-requisite Modules
No Co-requisite modules listed
Requirements *This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.*
No requirements listed

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Module Content & Assessment

Indicative Content
Lean Operations • The origins of lean production • Categories of waste • The 5 S's of the lean philosophy • Pull control vs push control • Production line balancing techniques • Qualitative and quantitative forecasting methods
Quality Management • Defining quality • Designing quality - Taguchi methods - Quality Function Deployment • Measuring quality - SERVQUAL - Service Process Control - Statistical Process Control - TQM • Quality Systems • Implementing quality systems in spreadsheets
Techniques for Project Management • Gantt charts • Project networks • Critical Path Method • Activity crashing and resource constraints • Project Management Software
Managing Capacity and Demand • Capacity management • Queuing models – queuing simulation • Managing demand • Managing supply • Yield management • Spreadsheet techniques for yield management • Facility Location Methods • Facility Layout – Operations Sequence Analysis • Using spreadsheet techniques for demand/capacity planning

Assessment Breakdown	%
Continuous Assessment	100.00%

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	Assignment 1: A given assignment that assesses numerical techniques as well the theory aspects of Lean Operations, Project Management and Facility Location and Layout	1,2,3	50.00	n/a
Practical/Skills Evaluation	Assessment 2: An in class computer practical assessment that assesses numerical techniques as well the theory aspects of Project Management, Capacity Management and Quality Management	2,4,5	50.00	n/a

No Project

No Practical

No End of Module Formal Examination

SETU Carlow Campus reserves the right to alter the nature and timings of assessment

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Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Practicals	30 Weeks per Stage	1.50
Independent Learning	30 Weeks per Stage	1.83
	Total Hours	100.00