MGMT H3315: Operations Management

Module Title:	Operations Management

Credits:	10

NFQ Level:	7

Module Delivered In	2 programme(s)

Teaching & Learning Strategies:	Lectures - communication and discussion of knowledge, ideas and skills. Problem Solving Exercises - student will work individually and/or as part of a team, to resolve relevant operations management problems. E-Learning - It is envisaged that the module will be supported with on-line learning materials. Self-Direct Independent Learning - the emphasis on independent learning will develop a strong and autonomous work and learning practices.

Module Aim:	The aim of this module is to introduce the various elements that comprise the field of Operations Management and to give student an understanding of role of the operations function within an organization and the outward impact operations has on all aspects of the business. The module will introduce the quantitative methods can play as decision aiding tools in the operations management field.

Learning Outcomes	
On successful completion of this module the learner should be able to:	
LO1	Explain key terms, concepts and practices in the area of operations management.
LO2	Examine the quantitative tools that are used to aid decision making in the area of operations management.
LO3	Apply appropriate quantitative techniques to defined and undefined practical operations management problems.
LO4	Analyse the outcome of the application of quantitative techniques to operations management scenarios in terms of implications and limitations.

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.*
Quantitative Techniques Business Mathematics Management Business Applications

MGMT H3315: Operations Management

Module Content & Assessment

Indicative Content
Introduction to Operations What is Operations Management?; Difference between Manufacturing and Service Organisations; Operations Management Decisions; History of Operations Management The operations function; Operations management in an E-business environment; Operations Management in Practice; Productivity
Project Management Project Planning Scheduling and Control; The Gantt Chart; Project Management Techniques - CPM/PERT; Probabilistic Activity Times; Project Crashing and Time Cost Trade Off; MS Project
Facility Layout What is layout planning?; Types of layouts; Designing process layouts; Special cases of process layouts; Designing product layouts Hybrid layouts; Types of production Processes
Supply Chain Management What is a supply chain? Components of a supply chain The bullwhip effect Factors affecting supply chain management Additional factors for Global Supply Chains Vertical Integration Insourcing versus outsourcing decisions The role of purchasing Information sharing Integrated supply chain management The role of warehouses Supply chain performance measurement Supplier selection Current trends in supply chain management
Forecasting The Importance and Role of Forecasting Forecasting approaches Quantitative and Qualitative. Time Series Forecasting: Moving Averages and Exponential Smoothing. Casual Forecasting: Regression and Correlation Analysis. Measuring Forecasting Errors Collaborative Forecasting, Planning and Replenishment (CFPR)
Independent Demand Inventory Management Functions of Inventory Types of Inventory Objective of inventory management Relevant inventory costs Determining Order Quantities Mathematical models for determining order quantity EOQ, EPQ, Quantity Discount Model Determining safety stock Periodic Review System ABC inventory classification Inventory record accuracy
Scheduling Scheduling Operations High & low Volume Operations, Scheduling Work, How to sequence jobs, Measuring performance, Comparing priority rules, Sequencing jobs through two workstations, Scheduling bottlenecks, Theory of Constraints, Scheduling for service organizations, Developing a workforce schedule
Quality Management Quality Defined, Quality Dimensions, Costs of Quality, Leading contributors to Quality Theory, Total Quality Management, Six Sigma, Quality Tools
Statistical Quality Control Describe categories of SQC, Using statistical tools in measuring quality characteristics, Describe the use of control charts. Identify the differences between x-bar, R, p and c-charts. Explain process capability and process capability index. Explain acceptance sampling and the use of OC curves. Describe the inherent challenges in measuring quality in service organizations.
Just in Time/Lean Operations The philosophy of JIT. Elements of JIT. Just in Time Manufacturing. The pull system.. Kanban production. Variations on Kanban Production. Total Quality Management. Respect for people. Benefits of JIT. JIT in services.
Capacity Management Measuring capacity; Reconciling capacity and demand; Evaluating capacity alternatives using Decision criteria, Expected Values, Decision Trees.
Aggregate Planning Role of Aggregate Planning; Capacity & Demand Options; Level, Chase & Hybrid plans Master Production Schedule

Assessment Breakdown	%
Continuous Assessment	40.00%
End of Module Formal Examination	60.00%

Continuous Assessment

Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Other	Written assignment	1,2,3,4	15.00	Sem 1 End
Other	Class Test	1,2,3,4	7.50	Week 7
Other	Class test	1,2,3,4	7.50	Sem 2 End
Other	Quiz	3	2.00	Week 4
Other	Quiz	3	2.00	Week 8
Other	Quiz	3	2.00	Week 12
Other	Quiz	3	2.00	Week 22
Other	Quiz	1,3	2.00	Week 27

No Project

No Practical

End of Module Formal Examination				
Assessment Type	*Assessment Description*	*Outcome addressed*	*% of total*	*Assessment Date*
Formal Exam	End-of-Semester Final Examination	1,2,3,4	60.00	End-of-Semester

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

MGMT H3315: Operations Management

Module Workload

Workload: Full Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	Every Week	3.00
Independent Learning	Every Week	4.00
	Total Hours	7.00

Workload: Part Time		
Workload Type	*Frequency*	*Average Weekly Learner Workload*
Lecture	Every Week	1.50
Independent Learning Time	Every Week	4.50
	Total Hours	6.00

Module Delivered In

Programme Code	Programme	Semester	Delivery
CW_BBOPT_D	Bachelor of Business with Options in Management. International Business, Supply Chain Management, Marketing, Human Resource Management	3	Mandatory
CW_BRLMB_B	Bachelor of Business(Honours) in Management	3	Mandatory