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| Module Title: | Operations Management |
| Language of Instruction: | English |
| Credits: | 5 |
| NFQ Level: | 8 |
| Module Delivered In | 3 programme(s) |
| 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 | |
| <i>On successful completion of this module the learner should be able to:</i> | |
| LO1 | Analyse project schedules with the use of Project Diagrams and the Critical Path Method (CPM). |
| LO2 | Demonstrate the use of Operations Management techniques in quality systems, supply and demand shaping, facility location and layout to increase the operational efficiency of organisations |
| LO3 | Appreciate the benefits and effects of introducing Lean Operations in a supply chain and its relationship with other production control techniques |
| Pre-requisite learning | |
| Module Recommendations <i>This is prior learning (or a practical skill) that is recommended before enrolment in this module.</i> | |
| No recommendations listed | |
| Incompatible Modules <i>These are modules which have learning outcomes that are too similar to the learning outcomes of this module.</i> | |
| No incompatible modules listed | |
| Co-requisite Modules | |
| No Co-requisite modules listed | |
| Requirements <i>This is prior learning (or a practical skill) that is mandatory before enrolment in this module is allowed.</i> | |
| No requirements listed | |

Module Content & Assessment

Indicative Content

Techniques for Project Management

Gantt charts, Project Network Diagrams, Critical Path Method, Activity crashing and resource constraints, Project Management Software

Quality Management

Defining quality. Designing quality. Taguchi methods. Quality Function Deployment. Measuring quality. Service Process Control Statistical Process Control TQM: Quality Systems, implementing quality systems in spreadsheets

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,

Lean Operations

The origins of lean production: buffers, push control, over, 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,

Assessment Breakdown

%

Continuous Assessment

100.00%

Continuous Assessment

| <i>Assessment Type</i> | <i>Assessment Description</i> | <i>Outcome addressed</i> | <i>% of total</i> | <i>Assessment Date</i> |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------|------------------------|
| 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 | 1,3 | 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 | 1,2 | 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

Module Workload

| Workload: Full Time | | |
|----------------------------|--------------------|----------------------------------------|
| <i>Workload Type</i> | <i>Frequency</i> | <i>Average Weekly Learner Workload</i> |
| Practicals | 12 Weeks per Stage | 3.00 |
| Independent Learning | 15 Weeks per Stage | 6.00 |
| Total Hours | | 126.00 |

| Workload: Part Time | | |
|----------------------------|--------------------|----------------------------------------|
| <i>Workload Type</i> | <i>Frequency</i> | <i>Average Weekly Learner Workload</i> |
| Practicals | 12 Weeks per Stage | 1.50 |
| Independent Learning | 15 Weeks per Stage | 4.00 |
| Total Hours | | 78.00 |

Module Delivered In

| Programme Code | Programme | Semester | Delivery |
|----------------|------------------------------------------------------------------------------------------|----------|------------------|
| CW_BWBUS_B | Bachelor of Business (Honours) Options: in Business or Digital Marketing | 5 | Group Elective 3 |
| CW_BWBUS_B | Bachelor of Business (Honours) Options: in Business or Digital Marketing | 7 | Mandatory |
| CW_BWBUS_D | Bachelor of Business Options: Business or Digital Marketing | 5 | Group Elective 3 |