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|  Title: | **Managing operations research** |
| Level: | 6 |
| Credit value: | 3 |
| Learning outcomes | Assessment criteria |
| 1. Be able to conduct operations research in an organisation
 | * 1. Define a problem in own area of responsibility, that has arisen out of a need to make better use of available resources
	2. Establish the objectives for the problem resolution and any specific requirements that must be met in proposing a solution
	3. Select and justify a specific operations research methodology to resolve the problem, identifying both its strengths and weaknesses in comparison to alternative methodologies
	4. Collect, validate and analyse data collected from the organisation in order to employ the selected operations research methodology to propose an appropriate solution
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| 1. Be able to interpret the outcomes of operations research
 | * 1. Recommend improvements to organisational efficiency based on the outcomes of operations research
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| **Additional information about the unit** |  |
| Unit purpose and aim(s) | To develop understanding and ability to be able to conduct operational research techniques, as required by a practising or potential middle manager |
| Details of the relationship between the unit and relevant national occupational standards or professional standards or curricula (if appropriate) |  |
| Assessment requirements or guidance specified by a sector or regulatory body (if appropriate) |  |
| Support for the unit from a sector skills council or other appropriate body (if required) |  |
| Location of the unit within the subject/sector classification system | Business Management |
| Unit guided learning hours | 10 |
| Indicative content: |
| 1 | * Operations Research as a scientific approach to problem-solving and decision-making
* Allocating scarce resources, e.g. production planning and scheduling, routing, working capital management
* Operations Research modelling approach, i.e. problem identification, formulation, analysis, model validation and implementation
* Range of techniques available, e.g. linear programming, queuing theory, simulation, mathematical programming and optimisation
* Operations Research analysis and interpretation
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| 2 | * Using the outcomes of operational research to optimise choices and improve organisational efficiency
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