COMPOSITES CURRICULUM - Unit Information

This unit forms part of the Masters level Composites Curriculum developed by Bristol and Plymouth Universities.

Taught block title	Manufacturing Operations A
Unit title	Production costing
Level (Credit points)	M (2)
Unit director	Professor Kevin Potter

Unit description

This unit forms part of the Masters level Composites Curriculum. It introduces Learners to the concepts of production costing and supports them to be confident in the use of costing approaches.

The course will be delivered from processing science and manufacturing engineering perspectives.

Core subjects to be covered

1. Company structures
2. Cost centres
3. Direct and indirect costs
4. Recurring and non-recurring costs
5. Costing methodologies
6. Job costing
7. Standard costing
8. Activity based costing
9. Direct costing
10. Parametric costing
11. Target (should cost) costing
12. Make or Buy decisions
13. Supply chain issues
14. Manufacturing equipment procurement
15. Factory space and facilities procurement
16. Delivery cost estimation
17. Introduction to Life Cycle costing
18. Commercially available cost modelling software
19. The Virtual Composites Company approach

Statement of unit aims

The aims of this unit are to:

1. Provide Learners with an overview of costing for composite products that are to be manufactured in a production environment.
2. Demonstrate how costs are built up in a production environment and how investment decisions can be made
3. Provide learners with an opportunity to use software tools to carry out trade studies

Statement of learning outcomes

Learners will be able to:

1. Identify the right approaches to product costing and understand their strengths and weaknesses
2. Identify the information required to carry out an effective costing and how such information can be obtained
3. Carry out simple costing using a spreadsheet model

Methods of teaching	7 lectures, 2 lab classes and demonstrations, 1 class exercise
Assessment details if required	Written assignment (85%), 20 minute assessed presentation (15%)
Timetable information	2 days of teaching in a block