

Module Title: Design for Environment

Elective Module

Content:

1. Design Process models.
2. Design Management (strategies, tactics and control).
3. Drivers for DFE in industry:
 - Waste Minimisation
 - Material Minimisation
 - Cost Reduction
 - Legislation for example End of Life Vehicle Directives, WEEE Directive, REACH, ROHS.
 - Standards, e.g. EMAS, ISO14000
 - Market Pressure
4. Life Cycle Design Model and the subsequent derivation of DFE Strategies from LCD
5. Product typologies and derivation of DFE strategies.
6. Tools and Methodologies for example
 - Impact Analysis (LCA), different types (abridged and full methods).
 - Matrix Methods
 - Guideline and Checklist Methods
 - Life Cycle Design Framework
 - DFE Workbench
7. Life Cycle Design and Costing
8. Case studies in DFE for different product types.