

BTEC level 3 Engineering

Activity

Produce a word-processed report which explains how the use of a CAM system can benefit the operation of a manufacturing business. Your report should address benefits such as:

- Increased profitability (eg reduced machine set-up times, greater flexibility in terms of batch sizes, reduction in lead times, reduction of labour costs, lower unit costs, optimised use of cutting tools, production of complex shapes)
- Improvements in quality (eg elimination of human error, consistent accuracy)
- Greater responsiveness to the requirements of the customer
- Competing in the world market place

You may wish to set out your report in this way.

Introduction

- Description of CAD, CAM, CNC and G-Coding

Quality based benefits of CAM

- Precision, reduction of errors etc

profitability based benefits of CAM

- Speed and efficiency, Shorter development times, Reduction in labour costs

Company development benefits

- Greater responsiveness to the requirements of the customer, the ability to appeal to other companies and compete in the world market place

Extra

You are to produce a report, in MS Word about the Product Lifecycle of an engineered product. Your report will be broken down into 5 sections and focus on the environmental impact of each stage of the products life from the extraction of raw materials to the product disposal.

Section 1 - Extraction of Raw Materials, Section 2 – Product Manufacture, Section 3 – Transport/Distribution, Section 4 – Usage, Section 5 – Disposal/recycling

CONTACT:

You can email Mr Gordon if you have any questions regarding the course or these induction tasks:

David.Gordon@ashfield.notts.sch.uk