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City & Guilds

601/5119/5 Level 3 in Certificate in Computer Aided Design

OVERVIEW

- What does this qualification cover?

This qualification takes a more advanced look into Computer Aided Design (CAD) to assist in the creation, modification, analysis, or optimization of a design through the use of 2 dimensional (2D) and 3 dimensional (3D) software. Learners will use two of three different CAD software to generate and edit advanced models/assemblies using data driven parameters, create complex drawings including annotations using multiple view layouts. Also creating and modify existing 3D objects, either surfaces or solids, at any position within Three Dimensional Space.

This provides learners with the skills and knowledge required for employment as a designer or draughts person or progress onto further learning in preparation for entry into the Advanced Manufacturing and Engineering sector.

All learners will complete two of the following three units:

- Computer Aided Design Using Parametric Modelling Software
- Using 2D Computer Aided Design Software
- Using 3D Computer Aided Design Software

The following areas will be covered within each unit:

Parametric Modelling - using a parametric modelling workstation safely, use advanced features when modelling, create advanced assemblies, create and modify table driven parts and assemblies, and create presentation graphics.

2D CAD – using layers, complex dimensions and text, use library items and external references, produce complex drawings, carry out advanced editing processes, use methods to cleanse a CAD drawing and output drawings using multiple scale views.

3D CAD - set the 3D modelling environment, construct and edit 3D surface models, construct and edit a 3D solid model, apply commands to manipulate a 3D model, apply commands to view 3D models in a variety of display formats and output a 3D model drawing layout.

This is Framework qualification.



- Who could take this qualification?

This qualification is designed for learners wishing to undertake a career as a draughts person or design engineer who may have already completed a Level 2 Award in 2D Computer Aided Design or Parametric Modelling or the Level 2 Certificate in Computer Aided Design. The Level 3 Certificate in Computer Aided Design would be appropriate for someone who wanted to learn how to design in both 2D and 3D at a more advanced level with a choice of between 2D CAD, 3D CAD and Parametric Modelling.

If you only wanted to learn about 2D CAD or 3D CAD or Parametric Modelling then the Level 3 Award in 2D CAD, the Level 3 Award in 3D CAD or the Level 3 Award in Parametric Modelling would be more suitable.

It is suitable for anyone aged 16 years old or over, has no formal entry requirements and would not be taken as part of an apprenticeship.

WHAT COULD THIS QUALIFICATION LEAD TO?

Learners could progress onto an advanced and/or higher apprenticeship in Engineering or onto further learning through other qualifications such as:

City & Guilds Level 3 Diploma in Engineering - 600/0881/7

City & Guilds Level 4 Diploma in Advanced Manufacturing Engineering - 600/6874/7

This qualification could lead to job roles in Advanced Manufacturing and Engineering such as:

- Design Engineer.
- Draughtsperson

WHO SUPPORTS THIS QUALIFICATION?

This qualification is supported by the following Colleges of Further Education and Training Providers:

- Tameside College
- Bracknell and Wokingham College
- CAD Centre UK