

## SKSFL4 – Design products using CAD systems(SQA Unit Code-H7C3 04)

### Overview:

This standard is for those who carry out computer-aided design for footwear / leathersgoods / saddlery and is about liaising with customers to determine the scope and design features and identifying and discussing the options available before designing a product using computer-aided design systems.

You need to know the principles and design capabilities of CAD systems, differences between 2D and 3D CAD and the information required to design concepts with CAD.

The job role will involve:

1. designing products using computer aided design systems

### Performance Criteria:

- P1 make sure the work area is free from hazards
- P2 liaise with the relevant people to confirm
  - P2.1 the scope of the design
  - P2.2 when the design is required
  - P2.3 main design features
- P3 discuss the options and explain the differences between them clearly and accurately
- P4 set up and operate the computer hardware and software in accordance with supplier instructions and company requirements
- P5 ensure best possible design concepts by utilising the CAD software
- P6 manipulate and alter images in accordance with the scope of the required design to test ideas on the screen using the CAD software
- P7 print off alternative designs to present a range of options suitable for production
- P8 confirm with the final design and record carefully any agreed alterations
- P9 back up the CAD system before turning off
- P10 comply with written instructions
- P11 complete forms, records and other documentation
- P12 work to legal requirements, standards and regulations, policies, procedures and professional codes

### Knowledge and Understanding:

- K1 the principles of CAD systems
- K2 the main design capabilities of the CAD system
- K3 how to undertake modelling and testing using the CAD
- K4 the main differences and advantages of 2D and 3D CAD
- K5 the main pieces of information required to get started with designing concepts using CAD
- K6 how to start, operate and close down the CAD system
- K7 the principles of pattern cutting and grading
- K8 the importance of pattern trials
- K9 why it is important to record information clearly about alterations and amendments required to the agreed design before and after factory production trial inspection
- K10 what information is required by those making the factory production trial
- K11 the organisation's rules, codes, guidelines and standards
- K12 equipment operating procedures
- K13 statutory responsibilities under health, safety and environmental legislation and regulations
- K14 common hazards in the work area and workplace procedures for dealing with them
- K15 manufacturers' instructions