Design and Manufacture - Higher

The Course is practical, exploratory and experiential in nature. It combines elements of creativity and designing for visual impact with elements of practicalities and an appreciation of functionality.

The aims of the course are to enable learners to develop:

- design skills in the context of products
- practical skills in planning and manufacturing models and prototypes, including the selection and use of equipment, materials and/or software
- skills in the evaluation of design proposals, including form and function, leading to a refinement of their design ideas
- skills in building and testing in order to improve their design ideas
- knowledge and understanding of manufacturing processes and materials
- an understanding of the impact of design and manufacturing technologies on our environment and society, the world of work and industry.

Course structure: The course has two units and a Course Assessment

Design unit:
This Unit covers the processes of product design from brief to resolved design proposals and specification. It helps learners develop skills in initiating, developing, articulating and communicating design proposals for products. It allows them to gain skills and experience in evaluating design proposals in order to refine, improve and resolve them. It allows them to develop an appreciation of design concepts and the various factors that influence the design and manufacture of products.

Materials and Manufacturing unit:
This Unit covers the processes of product design from design proposals to prototype. It allows learners to gain skills in planning and making models and prototypes. It helps learners to 'close the design loop' by manufacturing a set of design ideas. It allows them to develop an appreciation of manufacturing practicalities. It allows them to strengthen an appreciation of the various factors that influence the design and manufacture of products. It allows learners to consider the manufacturing techniques and processes that would apply to a design proposal in an industrial/commercial context.

Course assessment:
Component 1 - Assignment – 70 marks (50% of final mark)
Learners will apply skills from both of the units to produce an effective overall response to a brief set by the SQA.
Component 2 - Question paper – 70 marks (50% of final mark)
Learners will apply breadth and depth of knowledge and understanding from across the units to answer a question paper set by the SQA.

Assessment method

To gain an award for this course, learners need to pass the "Design" and the "Materials & Manufacturing" units and both components of the Course Assessment. Awards will be graded A – C.