

# NAT 4/5 DESIGN AND MANUFACTURE

## Why Design and Manufacture?

Design and Manufacture works on developing skills in product design, while giving you the opportunity to realize these designs through various modeling techniques. You will gain knowledge and an understanding of manufacturing processes including commercial and industrial processes and improve your understanding of material properties. You will also investigate the impact of design and manufacturing technologies on our environment and society.

Throughout the course you will develop an understanding of various design elements and principles giving you the chance to enhance your creative skills. You will work on improving your skills in designing, sketching, evaluating existing products and presenting and communicating your own design proposals.

## All candidates engage in:

- Investing and researching relevant design factors.
- Sketching and presenting design proposals.
- Evaluation of existing products to enhance their understanding of the design process.
- Critical and evaluative skills.
- Model making using various materials.

## The aims of the Course are to enable you to develop:

- An understanding of the design process and product evolution from design brief to prototype.
- Research and investigation skills.
- knowledge and understanding of manufacturing processes and materials
- an understanding of the impact of design and manufacturing technologies on our environment and society

## What does the course involve?

The course is made up of two elements, which are assessed through various tasks and folio work.

**Design:** This covers the product designing process from initial design brief to final proposal. You will develop your skills in developing, articulating and communicating design proposals while allowing you to develop your appreciation of design concepts and the various factors that influence the design of products. The evidence for this element created through design folios and a written product evaluation.

**Materials and Manufacturing :** This element investigates various manufacturing and modeling techniques. You will develop practical skills while allowing you to develop your appreciation of the properties and uses of materials. The evidence for this element is created through the production of prototypes and models.

## How is your work assessed?

Design and Manufacture National 5 is assessed as A B C D.  
Design and Manufacture National 4 is assessed as Pass or Fail.

- To achieve a National 4 Design and Manufacture, you must pass all of the required Units, including the Added Value Unit. All units are internally graded.

#### National 5

- To achieve a National 5 Design and Manufacture, you must pass the course assessment.
- Course assessment consists of 3 components: a design assignment working with a given brief to create a design folio which is externally assessed by the SQA (55marks), a practical assignment which is assessed in school. (45marks) and a written question paper.(80marks)

#### **What prior qualifications do I need, if any, for entry to this course?**

Entry is at the discretion of the Principal Teacher of Design Faculty but as a rule Level 4 (Experiences and Outcomes) is required for National 5

#### **Progression**

Higher Design and Manufacture