

PRODUCT DESIGN

Level: A Level

Awarding Body: AQA

For this course it is useful to have taken GCSE Resistant Materials, Graphics. It is important that you are enthusiastic, self-motivated and interested in all areas of 3D design. The course involves designing solutions to problems and producing prototypes to test your designs. It develops practical understanding, imagination, technique and creative ability and the use of CAD/CAM. These are attributes vital to the Product Design, and wider design industry.

Assessment

This is a linear two year course. At the end of the second year there are two written papers (both worth 25% of the course each). There will also be a Non-Exam Assessment (NEA). This is a coursework project and is worth 50% of the A level qualification.

Paper 1 (25%)

2 hour written paper (100 marks).

Core technical principles and core designing and making principles.

A mixture of short answer, multiple choice and extended responses.

Paper 2 (25%)

2 hour written paper

Specialist knowledge, technical and designing and making principles.

A mixture of short answer, multiple choice and extended responses.

Section A:

- Product Analysis.
- Up to 6 short answer questions based on visual stimulus of product(s).

Section B:

- Commercial manufacture.
- Mixture of short and extended response questions

Non Examined Assessment (Coursework) (50%)

Practical application of technical principles, designing and making principles and specialist knowledge

Assessment is based on the development of a substantial design and make task worth 100 marks.

This task is recommended to be completed in approximately 45 hours

Subject content

Core Technical Principles

Materials and applications

Extensive understanding of materials, equipment, processes, adhesives, finishes etc.

Comparative tests for mechanical properties of materials

Product development and improvement

Inclusive design

Ergonomics and anthropometrics

Design, illustration and communication

Computer Aided Design (CAD) and Computer Aided Manufacture (CAM)

Virtual modelling

Rapid prototyping processes

Efficient use of materials
Safe working practices, legislation and impact on designing and making
Health and safety in product manufacture
Feasibility studies
Protecting designs and intellectual property
Enterprise and marketing
Historical influence and design movements
Developments in Technology and product life cycles
Environmental issues
Approaches to project management

Entry requirements

GCSE Grade C or above in Graphics or Resistant Materials.

Cost

Students will be asked to make a £25 contribution towards materials each year. Any specialist materials requested will incur an additional cost.

Contact

For further information contact Miss H Gladman, Head of Technology.