



Product Design

ASSESSMENT

Satisfactory Completion

Demonstrated achievement of the set of outcomes specified for the unit.

LEVELS OF ACHIEVEMENT

Units 1 and 2

The school determines levels of achievement.

Units 3 and 4

School assessed coursework and an end-of-year examination.

- Unit 3 School-assessed Coursework: 12 %

- Unit 4 School-assessed Coursework: 8 %

- Units 3 and 4 School-assessed Task: 50 %

- End-of-year examination: 30 %

OVERVIEW

Product design is a response to changing needs, to improve quality of life by designing creative, innovative and sustainable products. Enhancement comes from knowledge of social, technological, economic, historical, environmental, legal, ethical and cultural factors. These factors influence the aesthetics, form and function of products.

Central to the course is design thinking, which is applied through the product design process providing structure for creative problem solving. Design involves identification of a real need, problem or opportunity that is then articulated in written form. The need, problem or opportunity is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional products.

The study is made up of four units:

Unit 1 Students consider the sustainability of an existing product, such as the impact of use, sourcing materials, manufacture, distribution and potential disposal. They analyse how a redeveloped product could solve a problem related to the original product. Materials and manufacturing processes should improve the sustainability of the redeveloped product.

Unit 2 Students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. Through teamwork encouragement of communication between students and mirrors professional design practice. Students also use digital technologies to facilitate teams to work collaboratively online.

Unit 3 Students are engaged in the design and development of a product that addresses a personal, local, or global problem or that meets the needs of a potential end-user/s. The product is influenced by factors including the purpose, function and context of the product; innovation and creativity; design elements and principles; sustainability concerns; economic limitations; legal responsibilities; material characteristics, properties; and technology.

Unit 4 Students make comparisons between similar products to help evaluate the success of a product in relation to a range of product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the product design factors.