

Design and Technology

2 units for each of Preliminary and HSC
 Board Developed Course
 Exclusions: Nil

Course Description:

The Preliminary course involves the study of both designing and producing. This is explored through areas such as design theory and practice, design processes, environmental and social issues, communication, research, technologies, and the manipulation of materials, tools and techniques. The course involves hands-on practical activities which develop knowledge and skills in designing and producing. The Preliminary course includes the completion of at least two design projects. These projects involve the design, production and evaluation of a product, system or environment and includes evidence of the design process recorded in a design folio. The design folio can take a variety of different forms.

The HSC course applies the knowledge and understanding of designing and producing from the preliminary course. It involves the development and realisation of a Major Design Project, a case study of an innovation, along with the study of innovation and emerging technologies. The study of the course content is integrated with the development of a Major Design Project, worth 60% of the HSC mark. This project requires students to select and apply appropriate design, production and evaluation skills to a product, system or environment that satisfies an identified need or opportunity. The case study of an innovation requires students to identify the factors underlying the success of the innovation selected, analyse associated ethical issues and discuss its impact on Australian society.

Main Topics Covered:

Preliminary Course

Involves both theory and practical work in designing and producing. This includes the study of design theory and practice, design processes, factors affecting design and producing, design and production processes, technologies in industrial and commercial settings, environmental and social issues, creativity, collaborative design, project analysis, marketing and research, management, using resources, communication, manufacturing and production, computer-based technologies, occupational health and safety, evaluation, and manipulation of materials, tools and techniques.

HSC Course

Involves the study of innovation and emerging technologies, including a case study (20%) of an innovation and the study of designing and producing including a Major Design Project. The project folio addresses three key areas: project proposal and project management, project development and realisation, and project evaluation.

Particular Course Requirements:

In the Preliminary course, students must participate in hands-on practical activities and undertake a minimum of two design projects. The projects will develop skills and knowledge to be further developed in the HSC course. Students will develop their knowledge of the activities within industrial and commercial settings which support design and technology and relate these processes to the processes used in their own designing and producing. Each project will place emphasis on the development of different skills and knowledge in designing and producing. This is communicated in a variety of forms, but students should be encouraged to communicate their design ideas using a range of appropriate media.

In the HSC course the activities of designing and producing that were studied in the Preliminary course are synthesised and applied. This culminates in the development and realisation of a Major Design Project and a case study of an innovation. Students should select and use the wide range of skills and knowledge developed in the Preliminary course, appropriate to their selected project. They must also relate the techniques and technologies used in industrial and commercial settings to those used in the development of design projects.