

**Liverpool Girls’ High School**

*Innovation Excellence Learning*

**Technological and applied studies (TAS)**

Stage 4 Course Outline

INTRODUCTION TO THE STAGE 4 TECHNOLOGICAL AND APPLIED STUDIES

(TAS) MANDATORY COURSE

Technology and an understanding of design processes enable people to manage, interpret, shape and alter their environment to improve their quality of life at home, school, in work places and in the broader community. The rapid rate of technological change in an increasingly knowledge-based society highlights the need for flexible technological capability, innovative thinking and effective communication skills.

Technology education integrates both procedural and conceptual knowledge based on a holistic view of design. Students identify needs that have personal relevance, apply design theory and use design processes that encourage flexibility, resourcefulness and imagination in the development, communication and production of quality solutions.

COURSE OBJECTIVES AND OUTCOMES

***1.*** *Students will develop knowledge, understanding and appreciation of and skills in design processes, design theory and the work of designers*

4.1.1 applies design processes that respond to needs and opportunities in each design project

4.1.2 describes factors influencing design in the areas of study of Built Environments, Products, and Information and Communications

4.1.3 identifies the roles of designers and their contribution to the improvement of the quality of life

***2.*** *Students will develop knowledge of and skills in researching, experimenting, generating and communicating creative design ideas and solutions*

4.2.1 generates and communicates creative design ideas and solutions

4.2.2 selects, analyses, presents and applies research and experimentation from a variety of sources

***3.*** *Students will develop knowledge and understanding of and skills in the responsible selection and safe use of materials, tools and techniques*

4.3.1 applies a broad range of contemporary and appropriate tools, materials and techniques with competence in the development of design projects

4.3.2 demonstrates responsible and safe use of a range of tools, materials and techniques in each design project

***4.*** *Students will develop knowledge, understanding and appreciation of the impact of innovation and emerging technologies on the individual, society and the environment*

4.4.1 1explains the impact of innovation and emerging technologies on society and the environment

***5.*** *Students will develop knowledge of and skills in managing quality solutions to successful completion*

4.5.1 applies management processes to successfully complete design projects

4.5.2 produces quality solutions that respond to identified needs and opportunities in each design project

***6.*** *Students will develop understanding and appreciation of and skills in evaluating and reflecting on the success of their own and others’ design activities*

4.6.1 applies appropriate evaluation techniques throughout each design project

4.6.2 identifies and explains ethical, social, environmental and sustainability considerations related to design projects

**Stage 4 Technological and Applied Studies (Mandatory) -** (Two Year Course)

Technological and Applied Studies (TAS) (Mandatory) involves designing, producing and evaluating quality design solutions. Students will learn about a variety of technologies and use a range of materials, tools and techniques to produce products including:

* Jewellery and Information Technologies
* Food
* Textiles
* Polymer and Timber, or
* Plant Production

Design Situation

Major focuses include:

* innovation
* creativity
* inspiration
* communication
* aesthetics
* collaboration
* creativity
* reflection
* problem solving
* quality solutions