
SUBJECT: TECHNOLOGY STUDIES

STATUS: Authority Subject

CODE: TST

COST: TBA

COURSE OVERVIEW:

Technology Studies involves the students in the investigation of resources and constraints while engaged in the designing, making and appraising of a solution to a human need or problem. The aim of Technology Studies is to develop an inquiring mind which encompasses flexible and critical thinking when considering a situation and the impact that various design outcomes will have within a societal context. Students will develop skills in designing, prototyping, manufacturing and evaluating a range of products.

COURSE STRUCTURE

Design Process: Requires students to respond to a human need or problem through the processes of designing, making and appraising.

Safety: Introduces the students to The Workplace Health and Safety Act of Queensland and those regulations which directly affect them in the classroom/workshop situation. Highlights the importance safety considerations play in the design process and the responsibility the designer has in this regard.

Materials: Students will investigate, evaluate and work with a range of natural and synthetic materials and gain knowledge of their classification, characteristics, industrial processes and applications, and products and by-products.

Tools: Students will work with a range of tools and gain knowledge of their identification, application and safe use.

Processes: Students will develop skills in processing materials and gain knowledge of their forming, separating, combining, conditioning and finishing.

Systems: Students will gain knowledge of systems and their application. Topics cover the principals, types, control and the organisation of systems. They are then able to employ a range of manufacturing construction, structural, and control systems.

ASSESSMENT TECHNIQUES:

Year 11: The students complete four design tasks, for each one they are required to develop and present a design folio, construct prototypes, and make and evaluate products. Each successive design folio should improve in depth of research and quality of presentation. A 500-750 word research report is also completed in Year 11.

Year 12: The students have one minor design and one major design task to complete, an integral part of which is a 750-1000 word related research report. The students knowledge, understanding and reasoning skills are assessed through two objective tests in each year level. All Year 12 assessment contributes directly to the student Exit Certificate.

SPECIAL REQUIREMENTS:

Additional Resources: Students are required to supply their own safety glasses, ear muffs, apron, hair nets, Graphics equipment and stationery. A user pays fee will apply for consumable items. The major design task has a moderate cost limitation applied to it, which allows the student to satisfy the course requirements. Design projects may exceed the allocation but all additional costs are met by the student.

Additional Information: Students are expected to word process their reports and design folios and produce some working drawings using a CAD system. Students will be using vertical panel, docking and portable circular saws in the preparation of materials and gas metal arc and oxygen/acetylene welding equipment in project work. The risks associated with this equipment are very high therefore safe conduct within the Workshop environment is mandatory.