



# TAS Electives 2020

## Learning at a glance. (200 hour courses)

### Engineering Technology

Engineering Technology provides opportunities for students to gain practical experience in and to investigate the concepts used in Engineering disciplines, especially disciplines that are current growth areas in Engineering.

#### Projects Based on:-

- Structures
- Mechanisms
- Control Systems
- Renewable energy



### Information and Software Technology

The study of Information and Software Technology assists students to develop the knowledge, understanding and skills digital technology to solve problems in real life contexts.

#### Projects Based on:-

- Learn how computing hardware and software works.
- Design and produce a W3C compliant website.
- Use coding or OOP to design a computer game.
- Integrate a variety of different media types producing an interactive multimedia experience.
- Robotic & Automated system development using Arduino & 3D printing.

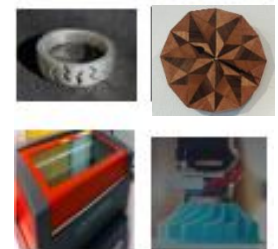


### Design and Technology

Learn to identify and analyse problems then design and produce solutions. Students may choose from focus areas of Industrial Design including CAD/CAM, Textiles and Jewellery.

#### Projects Based on:-

- Design and make products from timber, plastic and other prototyping materials. The focus of the course will be on creative use of CAD modeling, 3D printer, laser cutter/engraver & computer controlled mill.
- Learn to use a range of tools and techniques creatively to make individual projects in textiles, polymer clay and sterling silver.



### Textiles Technology

Students learn a broad knowledge of the properties and performance and uses of textiles. Completion of practical projects is integral to developing skills and confidence in the manipulation and use of a range of textile materials, equipment and techniques. Students have a choice of the textile items they wish to design and produce

#### Projects Based on:-

Projects may focus on one or more of the following areas:- Apparel, textiles arts costume & non apparel

- Design inspiration, generating and developing design ideas and the use of commercial patterns or simple pattern production
- Historical periods, technological advances and social events that have impacted on the development of textiles and the practice of textile designers.
- The methods of applying colour and decoration such as dyeing, beading, printing, appliqué, quilting, embroidery and garment construction.





# TAS Electives 2020

## Learning at a glance. (100 hour courses)

### Architecture and Graphic Design

This course is for students interested learning more about computers and a range of industry standard graphics and CAD applications to create and modify digital images, computer based animation and rendered 3D models

#### Projects Based on:-

- Architectural Drawing: design effective house layouts; use CAD software to generate 2D plans and 3D rendered images for architectural walkthroughs
- Graphic Design: design principles; use graphics software such as InDesign, Photoshop and Illustrator to produce artwork such as product design and logos.



### Food Technology

This course is for students interested learning more about cooking and historical, current and future issues relating to food. Students will explore food and food related issues through a wide range of practical experiences, allowing them to make informed and appropriate choices.

#### Projects Based on:-

- Cook, prepare and present (and eat) a range of dishes
- Learn about the influences of multiculturalism, nutrition and food production on our food selection.



### Timber Technology

The Timber Technology focus area provides opportunities for students to gain skills, knowledge and understanding in relation to Cabinetwork, Wood Machining and associated timber industries. It is a design based, practical oriented discipline covering the focus area of timber.

#### Projects Based on:-

- The principles of design appropriate to timber.
- Timber, its properties, how to use it and the tools, techniques & processes used when working with timber.
- Industrial processes and production techniques.
- A range of processes and techniques used in cabinet making.
- A range of processes and techniques used in wood machining.

