TAS Electives 2024

Learning at a glance. (200 hour courses)

Engineering Technology

Engineering Technology provides opportunities for students to gain practical experience and 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

Computing Technology

The study of Computing Technology focuses on computational, design and systems thinking- developing data analysis and programming skills.

Projects Based on:-

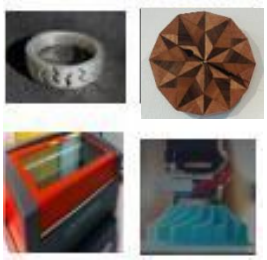
- Web Software Development - creating interlinked web pages, using HTML/CSS.
- Simulation project relating to the design of a game in Python, ,PyGame or Java Script.
- Data analysis applied to weather data or social data
- Creation of mini-videos linked to an augmented reality experience

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 modelling, 3D printer, laser cutter/engraver & CNC milling.
- 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 2024

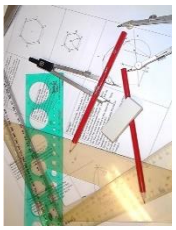
Learning at a glance. (100 hour courses)

Architecture and Graphic Design

This course is for students interested in learning more about hand drawing, 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:-

- Hand drawing with instruments and CAD.
- Architectural Drawing: CAD 2D plans and 3D rendered images for architectural walkthroughs.
- Graphic Design: design principles and graphics software to produce product design and logos.




Food Technology

This course is for students interested in learning more about cooking and historical, currentand 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

This course is for students interested in learning 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.
- Processes & techniques used in cabinetmaking & machining.

Robotics and Mechatronics (iSTEM)

This course is for students interested in learning science, technology, engineering and mathematics (STEM). The aim of the course is to engage and encourage student interest and skills in STEM, appreciate the scope, impact and pathways into STEM careers, and learn how to work collaboratively, entrepreneurially, and innovatively to solve real-world problems.

- Designs and develops creative, innovative, and enterprising solutions to a wide range of STEM-based problems.
- Selects &uses a range of technologies in the development, evaluation, & presentation of solutions to STEM-based problems.
- Selects and applies project management strategies when developing and evaluating STEM-based design solutions.