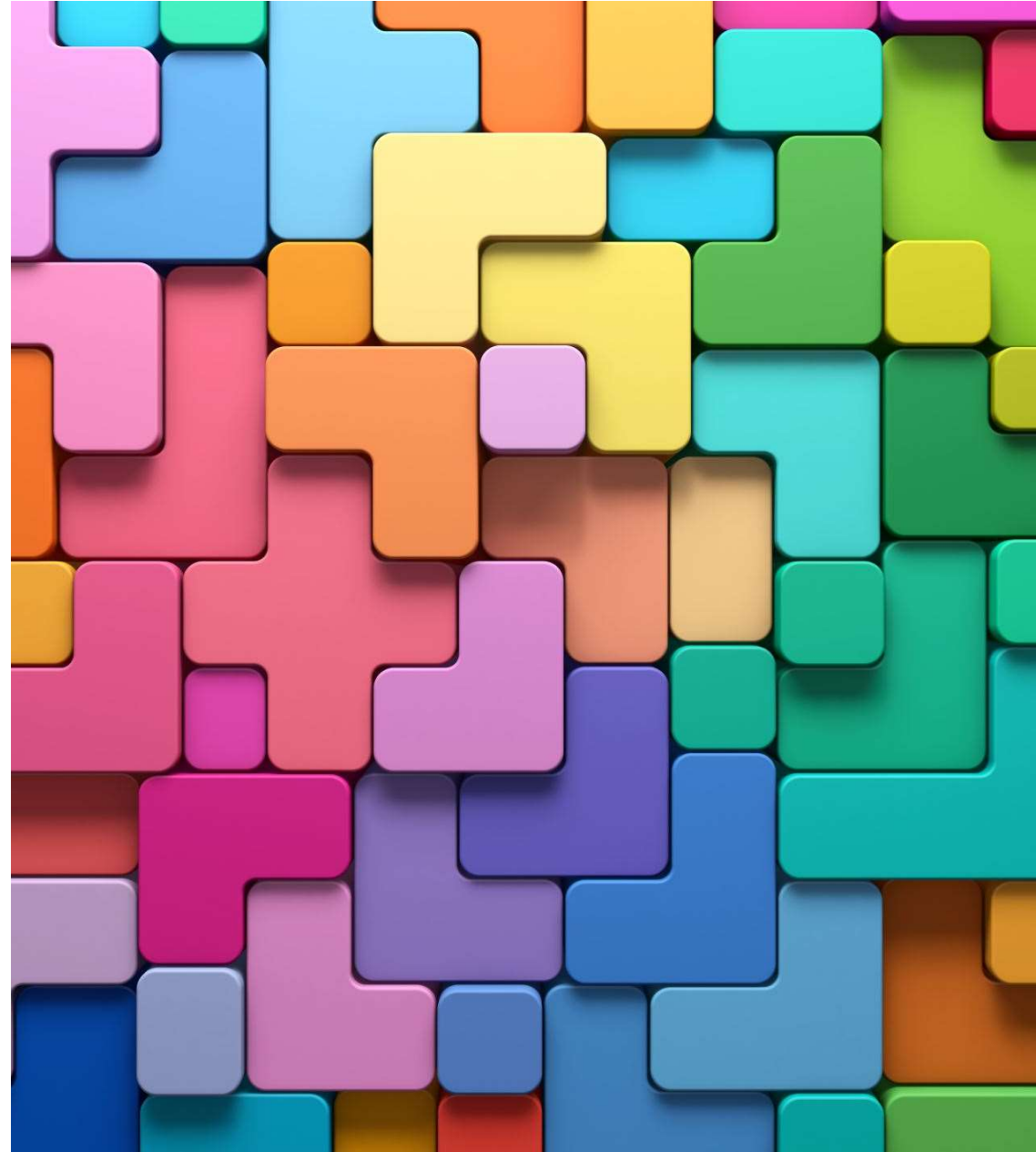


Technologies Upper-school Subject Offerings



Technologies – Subjects offered for Year 11/12 in 2025

General Courses:

Building & Construction: G1BCN /G2BCN

Design – Photography: G1DESP/G2DESP

Engineering Studies: GEST

Food Science & Technology: GEFST

Wood: G1MDTW/G2MDTW

Textiles: GEMDTT

Certificate Courses:

Certificate III Business: UD014

Certificate III Engineering Pathways: UD016

Certificate II Applied Digital Technologies Cyber Security: UD052

Certificate II Agriculture: UD061

General attributes to support success

Practical subjects require students to have the skills and abilities to increase the likelihood of success – these can include:

- Previous studies in the same context. (Knowledge/Skills)
- Ability to work with others (teamwork) and share equipment/resources.
- Work independently to complete set tasks. (initiative/motivation)
- Awareness of and ability to work safely in a workshop /industry environment
- Ability to focus on tasks in a busy environment without being distracted.
- Manage use of time to complete tasks.
- Be able to problem solve and be creative.

Engineering



GENERAL ENGINEERING STUDIES -(MECHATRONICS) [GEST]

Students will explore:

- Engineering design process introduction
- Electrical systems, Mechanisms and technical innovations.
- Study and interpret engineering design problems
- Prototypes and working models design solutions
- Scientific, mathematical and technical concepts
- It is particularly suited, but not limited, to those students who are interested in engineering design solutions and the technical industries as future careers.

CERTIFICATE II ENGINEERING (MEM20422)

Students will explore:

- Skills such as OSH, using hand tools, hand-held machinery tools, MIG, ARC and fusion welding.
- Turning on the metal lathe.
- Sheet metal fabrication.
- It is intended for people interested in exposure to an engineering and manufacturing environment, metal fabrication, or related working environment with a view to enter into employment in that field or undertake further Certificate training.

Building & Construction (G1BCN and G2BCN)



Students explore:

- Timber framing
- Brick and block work and paving
- Tiling
- Steel fabrication (MIG and Oxy welding)
- Concreting (footings and slabs)

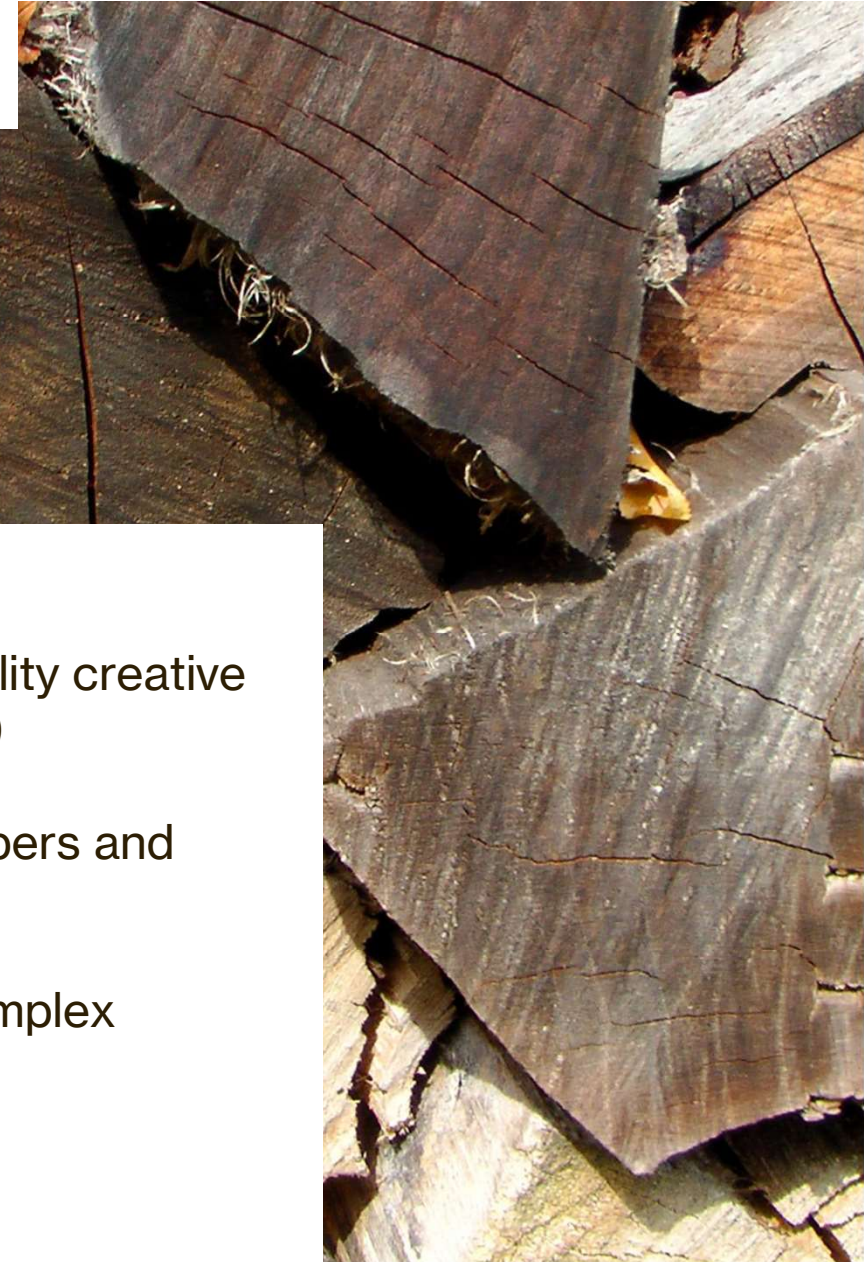


Materials Design and Technology

WOOD (G1MDTW & G1MDTW)

Students explore:

- Skills in the design process to generate original, high quality creative furniture pieces (hall table, recycled wine barrel furniture)
- Use more advanced techniques and skills using local timbers and various other composite materials (resin, steel).
- These range from small skills-based projects to large complex projects. (Sculptures to furniture).





TEXTILES (GEMDTT)

In this hands-on course, students will explore the fashion design process by:

- Developing the skills to sew and create garments and accessories using a range of technologies/machines
- Explore the concepts around the properties of textiles and fabrics to meet a specific need and develop an appreciation for the need for sustainability.



Food Science and Technology (GEFST)

Certificate II in Agriculture (AHA20122)

FOOD SCIENCE AND TECHNOLOGY

Student will explore:

- Raw and processed foods
- Adapt and modify foods to meet needs of the population
- Understanding of the science behind how ingredients work together.
- High theory content with related practical. (60%/40%)

AGRICULTURE

Student will explore:

- Sensory and physical properties of foods
- working with livestock,
- operating basic machinery and equipment,
- supporting horticultural production including aquaponics, hydroponics and aquaculture.

Certificate III Business BSB30115



Students will explore:

- Skills in word processing, PowerPoint and other software applications to communicate effectively in a business
- Keyboarding speed and accuracy,
- Occupational health and safety and well-being in the workplace
- Working in a team environment, using digital technologies.

DESIGN (Photography)

(G1DESP & G2DESP)

Students explore:

- How the Design Process works, how ideas, attitudes, messages and information are effectively communicated to specific audiences with specific intentions via visual media.
- How to provide solutions to 'real world' Design problems through the medium of digital Photography.
- How to develop their skills, techniques and understanding of design elements and principles, codes and conventions, values and beliefs and other Design specific theories and practices.



Certificate II Applied Digital Technologies

Cyber Security focus (ICT20120)

Student will :

- Take surveillance photographs using a drone
- Use object tracking to follow a target using a drone
- Work in a group to use a drone to take surveillance footage in a simulated security scenario
- Work in a group to create cyber safety educational materials for the wider school community
- Install virus detection software and scan a computer for viruses
- Install an operating system such as windows 10 or Linux and setup and use cyber security features
- Work in a group to analyze a Margaret River workplace to identify cyber security strengths and weaknesses

More Information

Mr Allan
MDT Wood +
Engineering

Mr Taylor
Engineering
(Cert II and General)

Mr Tweddle Building
& Construction

Mr Davy Wood

Mrs Garstone
Textiles

Mrs Drake-
Brockman
Food Science

Mr
Johnstone
Agriculture

Mr Barnett
Photography

Mr Hardy
Applied Digital
Technology IT
Cyber Security

Ms Laura
Crothers
Cert III Business

Ms Marsh
HOLA

School website:
View course
handbooks.

Further course details available by meeting with the relevant teachers