

# Technology

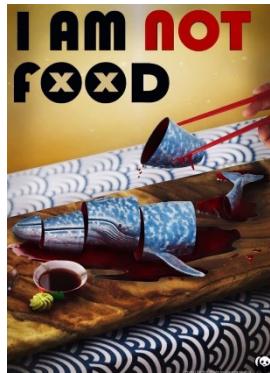
## Automotive Technology (A)

Automotive students learn the fundamentals of vehicle and engine systems, and electrical principles with expert teachers. Instruction in aspects of Workplace Health and Safety (WH&S) are taught to ensure safe practices in the classroom.

The Automotive rooms have modern equipment to ensure a comprehensive delivery of the Automotive curriculum. Included topics will be the operating principles of the 2 and 4 stroke petrol (Spark Ignition-SI) engine and the 4 stroke (Compression ignition-Cl) diesel engine.

Students will be given the opportunity to work on 2 and/or 4 stroke lawnmowers, multi-cylinder engines, steering, suspension, brakes and electrical components. They will also work on projects relating to automotive electrical systems and learn how to do electrical fault finding using specialised electrical test equipment.

## Design and Graphics (T/A)



This course is divided into three streams, Design Environments, Design and Graphics and Design and Emerging technologies.

Some of the key areas of learning include Design processes, Architectural design, Interior design and Product design.

The Design and Graphics computer lab has current industry-based software applications and we have collaborative associations with the Academy of Interactive Entertainment.

Designers play a vital role in shaping the way we live through the design of the products that surround us. Students are given the opportunity to develop a user centred product while considering the social, ethical and environmental responsibilities of designers.

They will explore the way in which design solutions are produced using existing and emerging technologies. Authentic innovation in design can be achieved by combining process thinking with new ideas and existing and emerging technology.

Students will be given the opportunity to develop skills in using the following software products:

- Autodesk Revit (Design Environments)
- Vectorworks (Design Environments, Design & Emerging Technologies)
- Autodesk Fusion 360 (Design & Emerging Technologies)
- Autodesk 3DS Max (Design & Emerging Technologies)
- Adobe Photoshop (Design & Graphics)
- Adobe Illustrator (Design & Graphics)
- Adobe InDesign (Design & Graphics)

## Furniture Making (A)



Through designing and making their projects, students acquire the skills to use equipment, machinery and information technologies. They gain knowledge and experience of materials, systems and production processes and how to work independently and collaboratively.

Students study the importance of WH&S in an industry environment, correctly using and identifying basic hand tools and equipment, understanding the importance of accurate measurements and using measuring tools correctly. They correctly use and identify basic hand tools and machinery in the construction of a simple project.

## Hospitality and Food Services (V/A)



Students can receive a certificate II in Hospitality over a two-year period with our expert Teacher and modern kitchens.

Café culture is a dominant feature of the course and students are given numerous opportunities to demonstrate the skills they have acquired in class. The School holds regular café service and restaurant sittings, which include student designed menus and Industry standard service for functions.

To gain a Certificate I in Hospitality, students need to complete a minimum of two semesters of Hospitality. To gain a Certificate II in Hospitality, students need to study four semesters of Hospitality. Students studying this course are well equipped to pursue a career in hospitality. On successful completion of this course, students will obtain a Certificate I and II in Hospitality and/or a statement of attainment in Kitchen Operations, Certificate III.

We also offer an accredited food package which focusses on domestic cookery and safe work practices. This course places emphasis on the practical aspects of food preparation and related areas. In line with increased job opportunities in the hospitality and tourism industry and other sectors, the course provides experience in cookery skills and techniques, menu patterns and planning, food service, and cultural and social variations in food preparation and consumption.

## Information Technology (T/V/A)



The Information Technology course of study gives students the opportunity to specialise in an area or choose a mix of units to graduate with a Major that gives them the ideal set of skills to take into their future.

Course streams and units may be blended in ANY configuration to suit the student's interests and they are able to graduate with either a Minor, Major, Major-Minor or Double Major in Information Technology.

Students have the opportunity to develop their skills in:

- Programming
- Cyber Security
- Robotics & Electronics
- Web Development
- Animation, and
- Computer Game Development.

Students are encouraged to pursue excellence in their area of specialty and to demonstrate their skills in challenges and competitions.

In all streams, students gain competencies that lead to the VET award of a Certificate II in Information Technology that could complement further studies at CIT or work. This includes the option of undertaking Structured Workplace Learning (SWL) or engagement in an Australian School Based Apprenticeship (ASBA).

Teamwork, investigative problem solving and delivering presentations together with traditional academic skills are explicitly taught in all streams. Students will use current technology and industry standard software in all of their classes, and will be well placed for further study or work.

## Metal Products (A)

This course teaches students the manipulative and physical skills relating to the Metals and Engineering industry. The emphasis is on practical work including instructions in safe workshop practice and tool selection.

Students are given the opportunity to develop skills both through completing set tasks and design-based projects.

Students are introduced to the principles of WH&S in the work environment and carry out routine welding using the Oxy/Acetylene and MIG (Gas Metal Arc Welding - GMAW) welders, looking at the selection of machines and tools to carry out mechanical cutting and performing engineering measurements.

Students will apply quality systems to perform welding techniques. Students will also work within specifications relevant to the tasks and perform problem solving exercises on the specification.

## Textiles and Fashion (T/A)



Textiles and Fashion Design are broad and evolving areas in society.

It is a multi-disciplinary study of the innovative use of materials which includes fibres and fabrics, that students manipulate to create garments, wearable art, furnishing or decorations.

Students study the influence of society, culture, industry and design utilising materials whilst exploring environmental sustainability in addition to local, national and global ethics and social justice issues.

Textiles and Fashion encompasses the latest or most admired styles, shapes and forms in clothing and interiors; it is constantly evolving. In these courses, students will have opportunities to develop their creative potential through the medium of fashion and textiles design technology.

Previous experience in sewing garments and using machinery is desirable but not essential.

## Tourism Studies (T/A/V)

### ***List of Units***

These units are taught at Tertiary, Accredited and Vocational levels with the option for students to obtain a Certificate II in Tourism in addition to Year 12 Certification.

### ***Tourism and Event Management***

This unit gives an overview of the dynamic tourism industry. It looks at issues of concern to the industry including globalisation and ethical issues. Case studies within Australia are examined to explore tourism products and services. In addition, marketing techniques and campaigns are reviewed to capture customer preferences

### ***Global Tourism***

This unit looks at global tourism issues and the rise in mass travel. Studies of environmental, economic, cultural and social impacts on host countries are analysed and discussed. As well as looking at specific international destinations, students investigate the need for social and cultural sensitivity. An excursion to Sydney may be a component of this course.

### ***Working in Tourism***

This unit explores the functioning of tourism ventures and industry standards. Business processes and customer interactions are covered with a variety of creative workplace scenarios and applications.

### ***Tourism and Events Promotion***

The focus in this unit is on understanding the events industry and in applying various marketing strategies to put on a display or actual event. Products, customers and the marketing of products and evaluating this process are essential components of this unit.