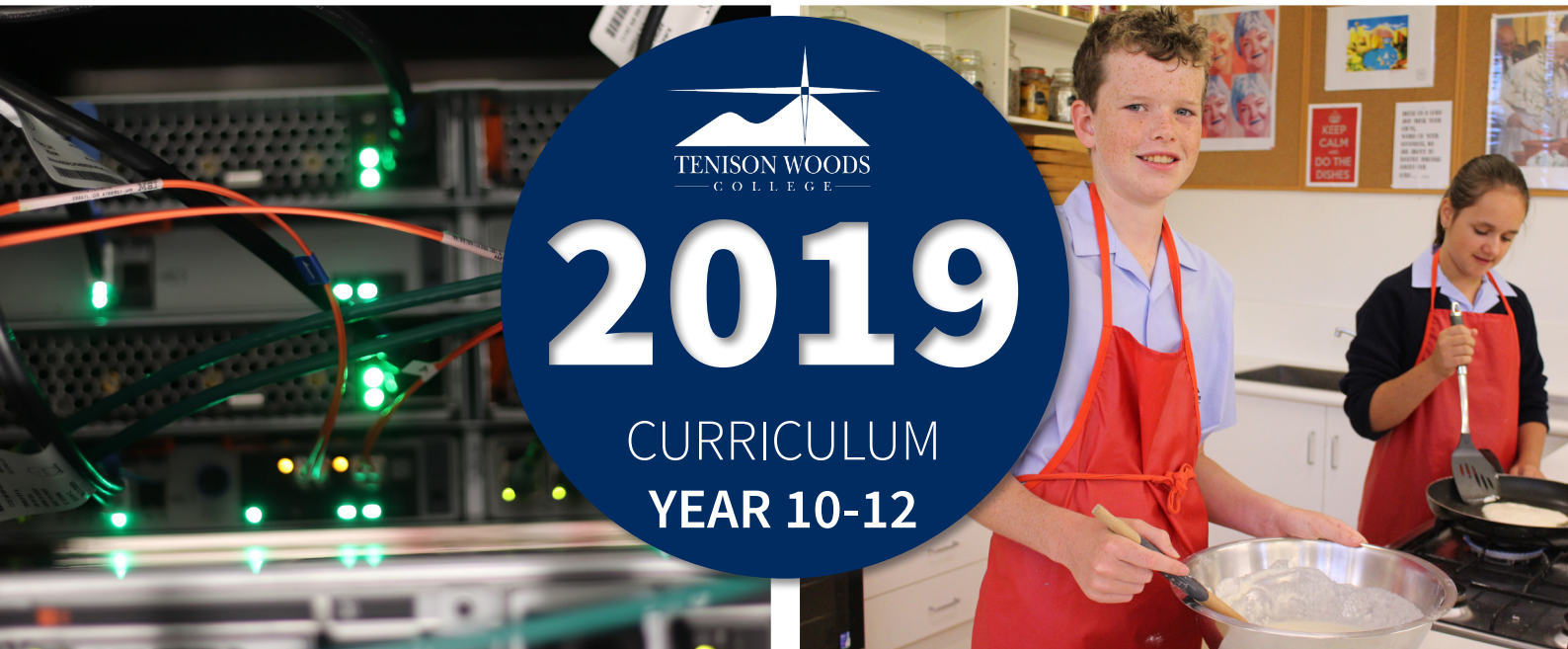
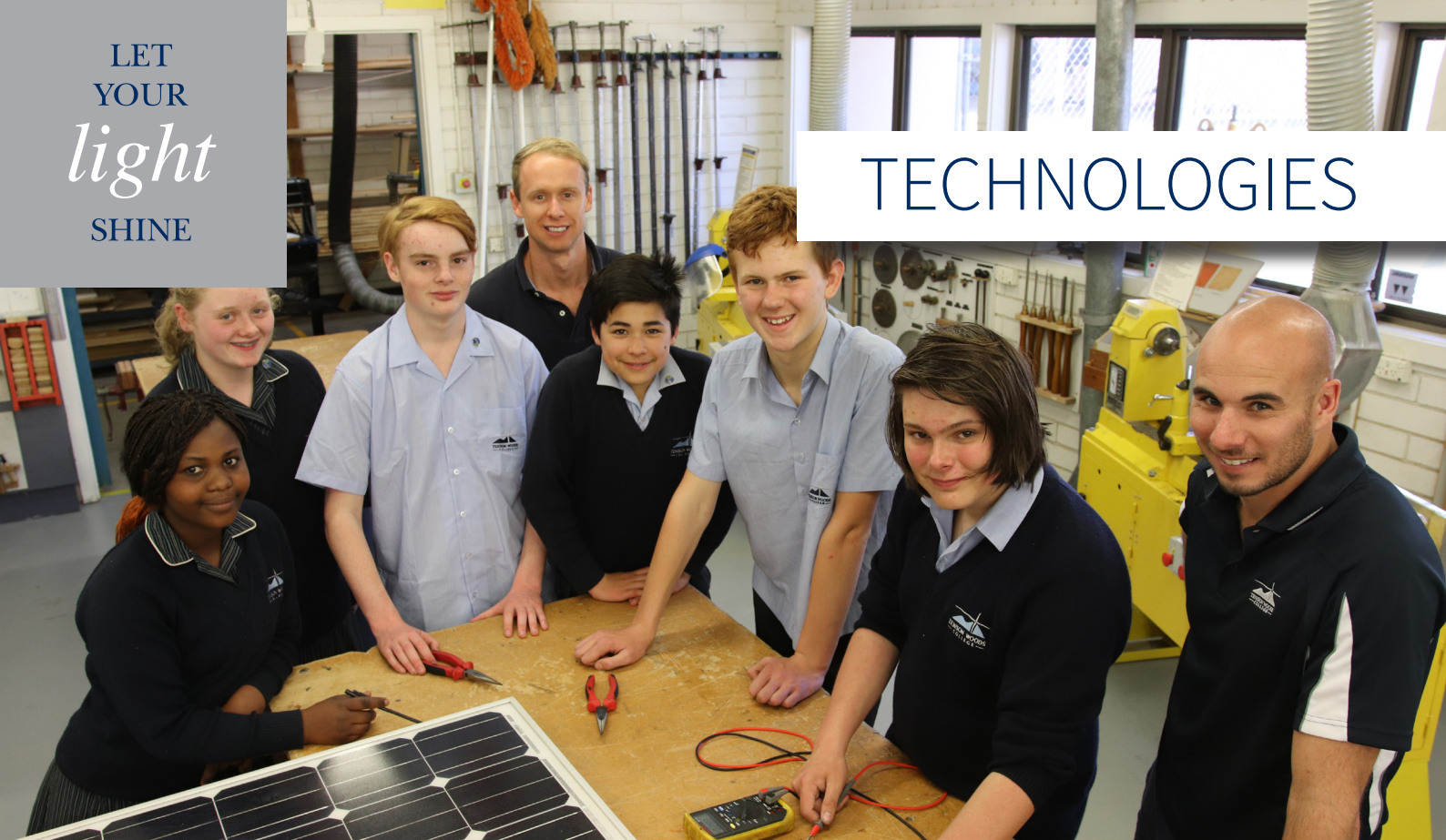


LET
YOUR
light
SHINE

TECHNOLOGIES



TENISON WOODS
COLLEGE

2019

CURRICULUM
YEAR 10-12

LEVERS

Learning Area Coordinator

MR TRENT EITZEN

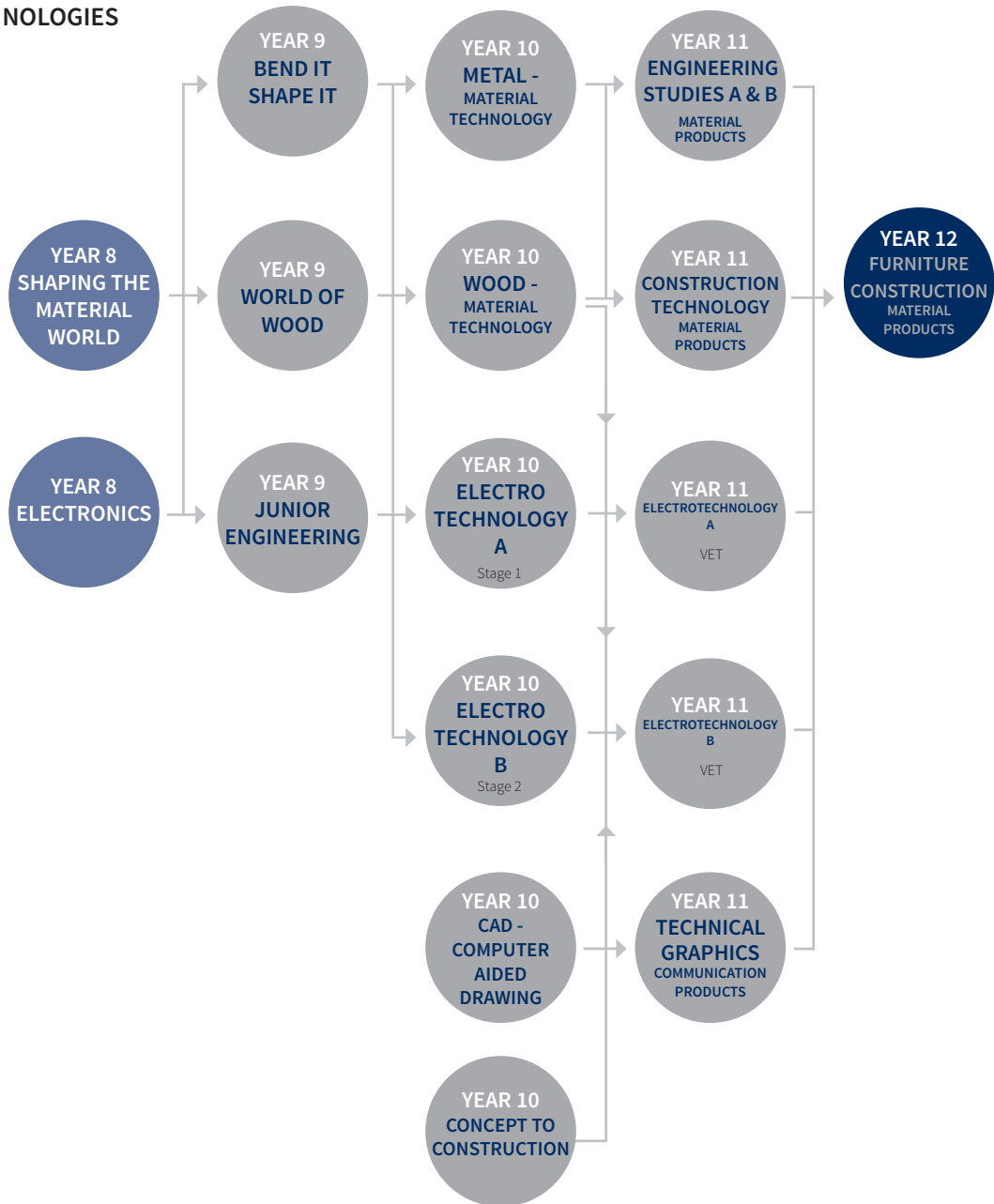
Email: eitzt@tenison.catholic.edu.au • Phone: 8725 5455

CONTENT STRANDS • DIGITAL TECHNOLOGIES • DESIGN AND
TECHNOLOGY • FOOD TECHNOLOGY • WORKPLACE PRACTICES

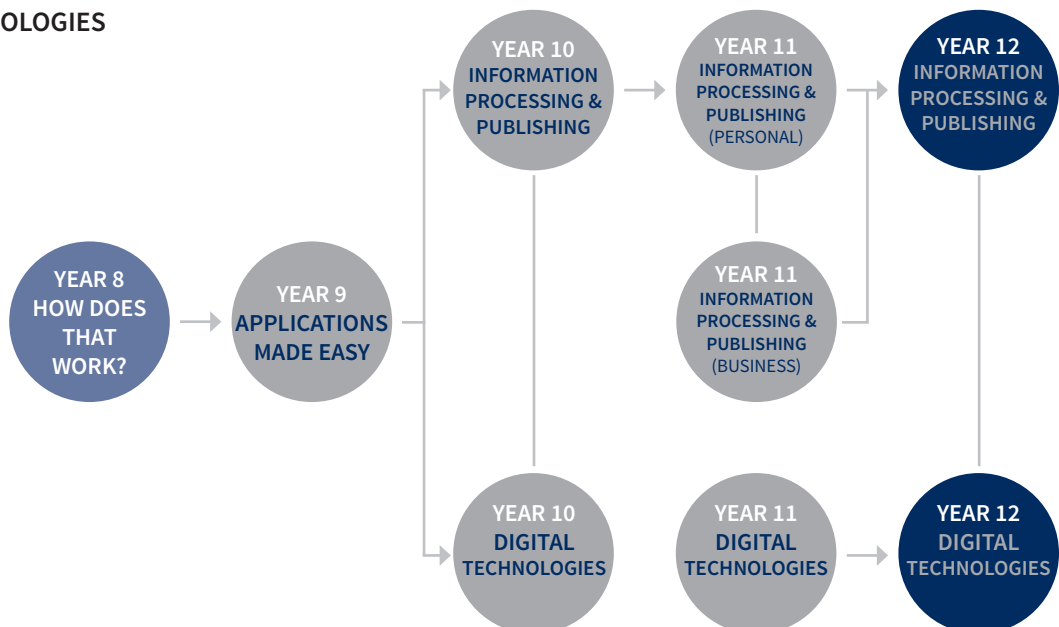


[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



DIGITAL TECHNOLOGIES



[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



COMPUTER AIDED DRAWING

- Year Level:** 10
- Pathways:** This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels, especially Stage 1 Communication Products-Technical Graphics.
- Prerequisites:** Recommended prior Year 9 study in Design & Technology at Tenison Woods College, but not essential
- Length:** Semester 1

Course Description: Students studying Computer Aided Design will be introduced to Autodesk- Inventor and AutoCAD. Inventor and AutoCAD are industry standard CAD applications and each allows for 3D mechanical design, simulation, visualisation and

documentation. Students will first research CAD and its advantage over traditional hand drafting. They then will move into learning how to use Inventor and AutoCAD and a range of other technologies such as 3d printing, laser and the CNC router, to enhance the skillset of CAD. The course is self-paced with checkpoints along the way to keep all students aligned with the curriculum.

Assessment: Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

METAL - MATERIAL TECHNOLOGY

- Year Level:** 10 **SACE Credits:** N/A
- Pathways:** VET Metal Engineering trades (TAFE) and skills for building and construction trades.
- Prerequisites:** None
- Length:** 1 semester

Course Description:

This course investigates the types of cutting and welding techniques used in the Metal Industry. Theory tasks involve the OH&S issues when dealing with metal, welding and cutting equipment, the production of working drawings, knowledge of the different types of welds and joints. Practical tasks involve the preparation of materials prior to assembling, oxy-acetylene

welding and cutting, MIG, TIG, and Manual Arc Welding, problem solving including distortion due to heat and methods to control distortion. There is also a design component where the student redesigns a commonly used tool and manufactures this during the semester.

Assessment: Assessment consists of various continuous assessments involving test pieces and project work, research assignments, drawing, and knowledge and understanding theory assignments and tests.

Materials Required: Most consumable and materials will be supplied, some individual project costs will be met by the student.



WOOD - MATERIAL TECHNOLOGY

- Year Level:** 10
- Pathways:** VET Furniture Trade, Construction Technology, Building and Cabinet Making – Wood Trades
- Prerequisites:** None
- Length:** 1 semester

Course Description:

This course investigates the types of wood construction used in industry. Theory tasks include OH&S, traditional woodworking, machining timber, the production of technical drawings, knowledge of the different types of timber and their uses, cutting and costing (using spreadsheets). The student will also be exposed to factory type situations where they will utilise

specialized machinery and processes to aid in the manufacture of a table. Practical tasks include construction and joining methods in timber and board and finishing types and applications. The Student will also use 3D CAD to assist in their design task.

Assessment: Assessment consists of various continuous assessments involving test pieces and project work, research assignments, drawing, and knowledge and understanding theory assignments and tests.

Materials Required: Most consumable and materials will be supplied, some individual project costs (glass) will be met by the student.



[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



CONCEPT TO CONSTRUCTION

Year Level:	10
SACE Credits:	N/A
Pathways:	This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels.
Prerequisites:	Recommended prior Year 9 study in Design & Technology at Tenison Woods College, but not essential
Length:	1 semester

Course Description:

Students studying Concept to Construction will develop a range of skills inside and outside of the workshop. This purpose of this course is to not only give students the opportunity to learn workshop skills, incorporating technologies such as CAD, 3d printing, prototyping & laser, but also to learn skills outside of the workshop. The course begins with the students designing and producing a contemporary designed touch lamp made from recycled materials, designed by the student. The lampshade is designed and drawn on CAD and then 3d printed. Once complete the class works as a team and is presented with a concept, project, client, need or challenge to complete on school grounds. This is where the students will engage in real world

working conditions and skillsets. The project can include a range of different skillsets such as, landscaping, carpentry, building, metal fabrication & electrical.

Assessment:

Students will complete a range of summative and formative assessments that are aligned with the Design & Technology Curriculum. It is all folio based and set out in a way that clearly demonstrates what the students have learnt throughout the Semester. This will also include the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Materials Required:

Recyclable materials for touch lamp, Work boots

Cost:

- Approximately \$35 to cover the cost of the electronics kit for the contemporary designed touch lamp made from recycled materials and the 3d printed lampshade
- \$40 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on TWC grounds (only if the student hasn't obtained certification prior to commencing the course)

ENGINEERING STUDIES A & B - MATERIAL PRODUCTS

Year Level:	11 (Stage 1)
SACE Credits:	10
Pathways:	Stage 2 Material Products, Trade-Engineering, Building and Construction, University-Engineering Studies
Prerequisites:	Recommended prior Year 10 study in Design & Technology at Tenison Woods College
Length:	1 semester

Special Considerations:

This course may be taken as a Stage 2 (full year) subject in year 11 but may not be repeated the following year.

Course Description:

Students studying Material Products- Engineering Studies will individually design, produce and evaluate a metal fabricated piece of work. Students apply their knowledge and skills to the design and production of their chosen piece. The course gives students the opportunity to Individually submit a piece of work that can be completed within the single Semester time frame. During the production, students are taught and then given the opportunity to apply the skillsets of ARC, MIG and TIG welding,

cutting, bending, assembling and finishing processes. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment:

Assessment is completed as per SACE requirements at Stage 1 level.

Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Application Tasks
- Folio (Including an investigation, design and evaluation)
- Product (including a product record)

Cost:

All costs are dependent upon student's final design. All designs will be approved by the teacher and parent/ guardian prior to production.

- \$40 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on Tenison Woods College grounds (only if the student hasn't obtained certification prior to commencing the course)



[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



ELECTROTECHNOLOGY YEAR 10 - A & B

Year Level: Year 10

SACE Credits: 10

VET qualifications: Certificate 1 in Electrotechnology

Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels. Industry pathways- Electrical, renewable/ sustainable energy, communications, computer systems, refrigeration and air conditioning, building and construction. University- Electrical/ Engineering Studies

Length: Year 10 - one or two Semesters.

Year 10/11 students can complete Electro Technology A or B.

Year 11 - Two Semesters. Stage 1 students must complete a full year of study in Electro Technology (A & B) to obtain and satisfy all the requirements for VET and SACE - Stage 1.

Please note: If students wish to complete A or B in Year 11, then they must enrol in the subject not completed in Year 10 to obtain VET qualifications.

Prerequisites: Recommended prior Year 9 / 10 study in Design & Technology at Tenison Woods College, but not essential.

Course Description: Students studying Electrotechnology will be introduced to basic electrical systems, including resistance, conductors, single and multiple path low voltage circuits, and electrical switching. The course also provides a comprehensive

overview of OH&S in the electrical industry, with student obtaining a White Card through the program.

The program also contains a strong sustainability focus, with students gaining valuable practical experience working alongside skilled tradespersons on the installation of significant solar photovoltaic systems on the College site each semester. Work experience is also fostered and strongly encouraged, with a broad range of connections with local industry members.

Assessment: Assessment is completed as per SACE requirements at Stage 1 level - VET competencies.

Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Application Tasks
- Folio (Including an investigation, design and evaluation)
- Product (including a product record)

VET includes theoretical understandings and practical tasks, completed through a set amount of competencies.

Materials/ equipment Required: Work boots

Cost:

- Approximately \$100 to cover a possible excursion/s to Solar Panel manufacturers in Adelaide and also nearby wind farms.
- \$40 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on Tenison Woods College grounds (only if the student hasn't obtained certification prior to commencing the course).

ELECTROTECHNOLOGY YEAR 11 - A & B

Year Level: Year 11

SACE Credits: 10

VET qualifications: Certificate 1 in Electrotechnology

Pathways: This subject provides an excellent grounding for students wishing to undertake Design & Technology subjects at Stage 1 and 2 levels. Industry pathways- Electrical, renewable/ sustainable energy, communications, computer systems, refrigeration and air conditioning, building and construction. University- Electrical/ Engineering Studies

Length: Year 10 - one or two Semesters.

Year 10/11 students can complete Electro Technology A or B.

Year 11 - Two Semesters. Stage 1 students must complete a full year of study in Electro Technology (A & B) to obtain and satisfy all the requirements for VET and SACE - Stage 1.

Please note: If students wish to complete A or B in Year 11, then they must enrol in the subject not completed in Year 10 to obtain VET qualifications.

Prerequisites: Recommended prior Year 9 / 10 study in Design & Technology at Tenison Woods College, but not essential.

Course Description: Students studying Electrotechnology will be introduced to basic electrical systems, including resistance, conductors, single and multiple path low voltage circuits, and electrical switching. The course also provides a comprehensive

overview of OH&S in the electrical industry, with student obtaining a White Card through the program.

The program also contains a strong sustainability focus, with students gaining valuable practical experience working alongside skilled tradespersons on the installation of significant solar photovoltaic systems on the College site each semester. Work experience is also fostered and strongly encouraged, with a broad range of connections with local industry members.

Assessment: Assessment is completed as per SACE requirements at Stage 1 level - VET competencies.

Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Application Tasks
- Folio (Including an investigation, design and evaluation)
- Product (including a product record)

VET includes theoretical understandings and practical tasks, completed through a set amount of competencies.

Materials/ equipment Required: Work boots

Cost:

- Approximately \$100 to cover a possible excursion/s to Solar Panel manufacturers in Adelaide and also nearby wind farms.
- \$40 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on Tenison Woods College grounds (only if the student hasn't obtained certification prior to commencing the course).



[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



TECHNICAL GRAPHICS - COMMUNICATION PRODUCTS

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Material Products, VET trade course background, drafting insights and skills background, engineering drawing and understanding.
Prerequisites: None, but Year 10 CAD an advantage
Length: 1 semester

Special Considerations: Students at Year 10 having successfully completed CAD in first semester with teacher recommendation may be enrolled in this course, depending on normal course constraints.

Course Description:

In this course students will develop an understanding of the technical use of graphics in both industry and the wider community. The Communication Products course is structured to provide firstly, a general overview of Technical and Engineering Drawing and Australian Standards and secondly, the common uses of graphics in everyday life. Students begin the course by

investigating AS1100 (Australian Standards) and the quality, application and presentation of line-work. The course progresses to incorporate drawing conventions including first and third angle Orthographic Projections, Isometric Projection and Measured 2 Point Perspective. During the development of these skills, the student investigates the use of graphics in the wider community by understanding the design process when it is applied to the design of a logo. Students also investigate the use of marketing and market research and the value of graphics in our community. Emphasis is placed on developing a range of broader skills essential to building a sound understanding of Graphics, especially CAD.

Assessment:

Assessment at Stage 1 is school based. Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Applications Tasks
- Folio
- Product

Materials Required:

None.

CONSTRUCTION TECHNOLOGY - MATERIAL PRODUCTS

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Material Products, Building Trades, Engineering - University.
Prerequisites: At least one Technology Subject at Year 10
Length: 1 semester

Special Considerations: Students at Year 10 having successfully completed at least one Material Technology subject in first semester with teacher recommendation may be enrolled in this course, depending on normal course constraints.

Course Description:

Course Description: In this course students will develop an understanding of the design process to develop solutions to practical problems. Students will select and use materials, techniques and systems to achieve outcomes. Students will be introduced to a wide and varied range of materials and modern technologies used and incorporated in commercial manufacturing (enterprising and vocational) using production of custom built fishing rods as a theme. Students will design and make their own custom built fishing rod. They will also design a pair of rod supports which will assist in the production of the above. Production of working drawings using CAD will be an integral part of this process. Individual design and creativity will be encouraged.

Students explore issues related to fibre reinforced plastics and composite materials readily used in industry. Emphasis is also placed on real life impacts on enterprise and work, such things as budgets, skill level and market demands. Students will also be expected to use workshop equipment and achieve expected tolerances in all the work. Students will use information technologies to research and communicate their ideas.

Assessment:

Assessment at Stage 1 is school based. Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Applications Tasks
- Folio
- Product

Materials Required:

A4 clear display folder/booklet
Most consumable and materials will be supplied

Additional Information:

Cost: Students will meet the cost for the rod components (~\$80.00). Should the student wish to make another rod other than the one supplied, all parts are to be sourced and supplied by the student in consultation with parents and teacher.



[TECHNOLOGIES]

DESIGN & TECHNOLOGIES



FURNITURE CONSTRUCTION - MATERIAL PRODUCTS

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathways: Trade- Building and Construction, Engineering, University- Engineering Studies
Prerequisites: Strongly recommend a Stage 1 subject completion in Design & Technology at TWC.
Length: 1 Year

Course Description: Students studying Material Products Furniture Construction or Metalwork will individually design, produce and evaluate a timber handmade piece of work or a metal fabricated piece of work. Students apply their knowledge and skills to the design and production of their chosen piece. The course gives students the opportunity to Individually submit a piece of work that can be completed within the time frame allowed at Stage 2 level. During the production, students are taught and then given the opportunity to apply the skillsets of traditional woodworking, machining timber with advanced workshop machinery and the finishing process in the making of fine furniture or the skillsets of ARC, MIG and TIG welding, cutting, bending, assembling and finishing processes. All of which are completed by integrating technologies such as CAD (computer aided design), 3d printing, prototyping and laser. A strong area of

focus is the student's ability to follow all OH&S policies and procedures, setup, pack up, workshop cleanliness and their practical and problem solving abilities.

Assessment: Assessment is completed as per SACE requirements at Stage 2 level.

Students demonstrate evidence of their learning against performance standards in the following assessment types:

- Skills and Application Tasks
- Folio (Including an investigation, design and evaluation)
- Product (including a product record)

Cost:

All project costs are dependent on the student's final design. All designs will be approved by the teacher and parent/guardian prior to production. Students are also encouraged to purchase or supply their own materials outside of school.

- \$40 White Card Certification (Construction Industry Certification) completed online, in conjunction with a full day training course ran on TWC grounds (only if the student hasn't obtained certification prior to commencing the course)

INFORMATION PROCESSING AND PUBLISHING

Information Processing and Publishing focuses on the use of technology to design and implement information processing solutions. The technologies, now used by individuals, businesses and organisations to process, manage and communicate information, enable meaning to be received and shared through a wide range of increasingly complex and extended modes of communication in formal and informal contexts.

These technologies offer users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information. Information Processing and Publishing emphasises the acquisition and development of practical skills in identifying, choosing and using the appropriate computer hardware and software for communicating in a range of contexts. Students will be challenged by rapid changes in the volumes, accessibility, generation and transfer of information and the opportunities provided by the use of new media in information processing and publishing.

INFORMATION PROCESSING & PUBLISHING

Year Level: 10
Pathways: Stage 1 Information Processing and Publishing
Prerequisites: None
Length: 1 semester

Course Description:

The Information Processing and Publishing course consists of business and personal publishing. Students will investigate the uses of the Microsoft Office package particularly Publisher and Word.

Practical tasks will incorporate the skills required to understand design process for creating informative material and A large component of the practical tasks is for the students to understand and apply critiquing for improved work. This class may be combined with Information Technology.

Assessment:

The assessment component for IPP has been selected to provide a balanced assessment of learning outcomes and consists of practical skills, designing and skills applications as well as issues analysis.



[TECHNOLOGIES]

INFORMATION PROCESSING AND PUBLISHING



INFORMATION PROCESSING & PUBLISHING (PERSONAL)

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Information Processing and Publishing
Prerequisites: Year 10 IPP/IT/Graphics recommended
Length: 1 semester

Course Description:

- Information Processing and Publishing offers users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information
- This course involves the use of software appropriate to paper based publications and other digital publications
- It provides a sound basis for the investigation and use of new personal publishing tools in the future
- The students consider legal, ethical and social issues related to information processing and publishing
- The course has a practical basis and emphasises the development of skills and understanding in designing, making and critiquing
- Students learn about the Principles of Design: i.e. Contrast, Repetition, Alignment and Proximity

- Students learn to follow the designing process to apply principles to produce publications for personal use, produce paper based publications such as letters, resumes and invitations using MS word, Publisher and Adobe Photoshop
- Establish good keyboard and associated manipulative skills
- In the digital presentation section, students incorporate the use of Information processing and processing equipment such as projectors and monitors to display and explain their presentation
- The emphasis is on designing interactive presentations for product displays using MS Power Point or Prezi.

Assessment:

Assessment for Stage 1 IPP is school based. To gain Satisfactory Achievement in this subject student will need to demonstrate evidence of their learning against performance standards in the following assessment types:

- Practical Skills (50%)
- Product and Documentation (30%)
- Issues Analysis (20%)

INFORMATION PROCESSING & PUBLISHING (BUSINESS)

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathways: Stage 2 Information Processing and Publishing
Prerequisites: Year 10 IPP/IT/Graphics recommended
Length: 1 semester

Course Description:

- Business Publishing emphasises the development of practical skills in identifying, choosing and using the appropriate computer hardware and software for communicating in a range of contexts. The subject offers users a wide range of choices in the methods of inputting, manipulating, storing and disseminating information
- This course involves the use of information and processing and publishing tools in a business context along with development of product in digital format
- The students consider legal, ethical and social issues related to information processing and publishing
- Students also develop skills of creation, manipulation, storage and use of digital media to solve problems in a personal, community or business context

- The course has a practical basis and emphasises the development of skills and understanding in designing, making and critiquing
- Students learn about the principles of design: i.e. Contrast, Repetition, Alignment and Proximity
- Students learn to follow the designing process to apply principles to produce publications for personal use, paper based publications such as letters, flyers, menus, reports and invitations using MS Word, Publisher and Adobe Photoshop
- The students apply problem-solving, critical thinking and decision-making skills by using the designing process

Assessment:

Assessment for Stage 1 IPP is school based. To gain Satisfactory Achievement in this subject students will need to demonstrate evidence of their learning against performance standards in the following assessment types:

- Practical Skills (50%)
- Product and Documentation (30%)
- Issues Analysis (20%)



[TECHNOLOGIES]

INFORMATION PROCESSING AND PUBLISHING



INFORMATION PROCESSING & PUBLISHING

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathways: University: Art, Science, Business and TAFE
Prerequisites: This unit has no pre-requisites but Stage 1 Information Processing and Publishing would be an advantage.
Length: 1 year

Course Description:

Information Processing and Publishing exposes students to a combination of Personal, Business & Desktop Publishing documents. The practical skills section focuses on using the Principles of Design in a variety of applications to complete specified information processing or publishing tasks. Tasks may

include flyers, leaflets, stationery, posters, brochures & advertising material. The product and documentation focus on following the design process i.e. Investigation, Devising, Producing & Evaluation. For issues and analysis students consider the social, ethical and/or legal issues associated with the use of computer technology for communication within business (i.e. security, confidentiality, privacy, identity theft, occupational health, safety and intellectual property).

Assessment:

School-Based Assessment: Practical Skills (40%); Issues Analysis (15%); Technical & Operational Understanding (15%). External Assessment: Product & Documentation (30%)

DIGITAL TECHNOLOGIES

In Digital Technologies students create practical, innovative solutions to problems of interest. By extracting, interpreting, and modelling real-world data sets, students identify trends to examine sustainable solutions to problems in, for example, business, industry, the environment, and the community. They investigate how potential solutions are influenced by current and projected social, economic, environmental, and ethical considerations, including relevance, originality, appropriateness, and sustainability.

Students use computational thinking skills and strategies to identify, deconstruct, and solve problems. They analyse and evaluate data, test hypotheses, make decisions based on evidence, and create solutions. Through the study of Digital Technology, students are encouraged to take ownership of problems and design, code, validate, and evaluate their solutions. In doing so, they develop and extend their understanding of designing and programming, including basic constructs involved in coding, array processing, and modularisation.

DIGITAL TECHNOLOGIES

Year Level: 10
Prerequisites: None, but any Year 8 or 9 IT subjects would be an advantage.
Pathways: Stage 1 Digital Technologies
Length: 1 semester
Special Considerations: This class may be combined with Information Processing and Publishing.

Course Description:

Computational Thinking, Algorithms, Digital systems, Computer

Networks, Programming user interfaces and its evaluation based on real world scenarios. Issues related to privacy and cyber security taking into account social contexts and legal responsibilities. Information Technology applied in daily life and future careers.

Assessment:

Assessment components have been selected to provide a balanced assessment of the learning outcomes which consists of practical skills, design and application skills as well as issues analysis.



[TECHNOLOGIES]

DIGITAL TECHNOLOGIES



DIGITAL TECHNOLOGIES

Year Level: 11 (Stage 1)
SACE Credits: 10
Pathway: Stage 2 Information Technologies
Prerequisites: A basic ICT knowledge and Year 9 ICT and / or Year 10 Digital Technologies are preferable.
Length: 1 semester

Focus Areas:

- Focus Area 1: Programming
- Focus Area 2: Advanced Programming
- Focus Area 3: Data Analytics
- Focus Area 4: Exploring Innovations

For more information on focus areas refer to the SACE website.

For a 10-credit program, students study at least two focus areas.

Computational thinking skills are integral to each focus area, together with applying program design skills and exploring innovation. Students analyse patterns and relationships in data sets and/or algorithms and draw conclusions about their

usefulness in defining the problem. In developing and applying their program design skills, students take a structured approach to designing an algorithm or digital solution that is appropriate to the context of the problem, and meets the needs of the intended user. They code, test, and evaluate their solutions.

In creating and/or evaluating their solutions, students take into account ethical considerations. These may include, for example, implications of data use and/or digital solutions for individuals, groups, societies, and/or the environment.

Assessment:

Assessment Type 1: Project Skills
Assessment Type 2: Digital Solution
Students complete:

- at least two project skills tasks
- at least one digital solution.

Students must have the opportunity to work collaboratively in at least one assessment.

DIGITAL TECHNOLOGIES

Year Level: 12 (Stage 2)
SACE Credits: 20
Pathway: Computer Science, Information Technology, Computer Systems/Software Engineering.
Prerequisites: Stage 1 Information Technology is highly recommended
Length: 1 year

Course Description:

In Digital Technologies students create practical, innovative solutions to problems of interest. By extracting, interpreting, and modelling real-world data sets, students identify trends and examine sustainable solutions to problems in, for example, business, industry, the environment, and the community. They investigate how potential solutions are influenced by current and projected social, economic, environmental, scientific, and ethical considerations, including relevance, originality, appropriateness, and sustainability.

Innovation in Digital Technologies involves students creating new ways of doing things, generating their own ideas and creating digital solutions to problems of interest. Solutions may take the form of a product, prototype, and/or proof of concept. Students are encouraged to experiment and learn from what does not work as planned, as well as from what does work. Innovation may also include students designing solutions that improve existing processes or products.

Students use computational thinking skills and strategies to identify, deconstruct, and solve problems that are of interest to them. They analyse and evaluate data, test hypotheses, make decisions based on evidence, and create solutions. Through the study of Digital Technologies, students are encouraged to take ownership of problems and design, code, validate, and evaluate their solutions. In doing so, they develop and extend their

understanding of designing and programming, including the basic constructs involved in coding, array processing, and modularisation.

At Stage 2, students develop and apply their skills in computational thinking and in program design, and engage in iterative project development, where a product or prototype is designed and tested and/or implemented in stages. Digital Technologies promotes learning through initiative, collaboration, creativity, and communication, using project- and inquiry-based approaches.

Stage 2 Digital Technologies is a 20-credit subject that consists of the following focus areas:

- Focus area 1: Computational thinking
- Focus area 2: Design and programming
- Focus area 3: Data analytics
- Focus area 4: Iterative project development.

The following assessment types enable students to demonstrate their learning in Stage 2 Digital Technologies.

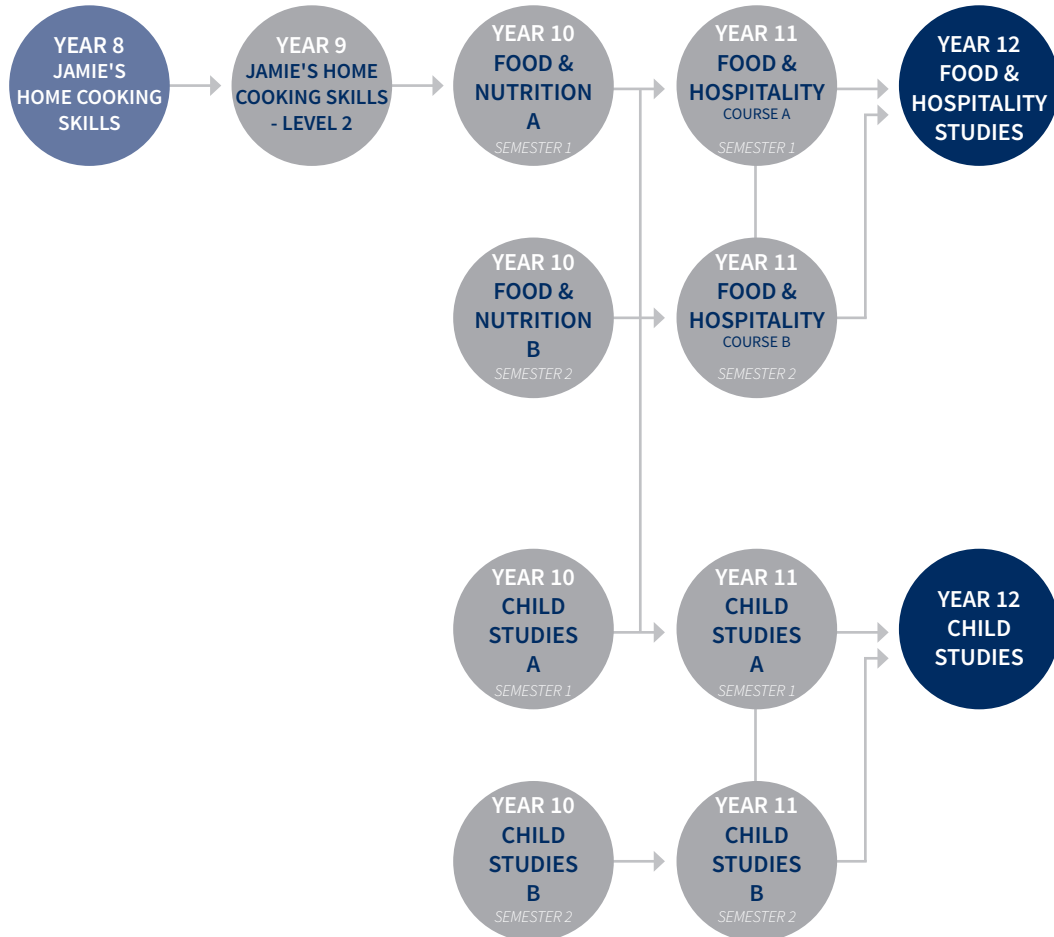
School assessment (70%)

- Assessment Type 1: Project Skills (50%)
 - Assessment Type 2: Collaborative Project (20%)
- External assessment (30%)
- Assessment Type 3: Individual Digital Solution (30%).
Students should provide evidence of their learning through six assessments, including the external assessment component. Students undertake:
 - four project skills tasks
 - one collaborative project
 - one individual digital solution.

**Digital Technologies for 2019 is still in draft mode. Updated subject outline is going to be available on SACE Board's website soon.*

[TECHNOLOGIES]

FOOD TECHNOLOGIES



WORKPLACE PRACTICES



Available at Year 11
with recommendation



[FOOD TECHNOLOGY]

FOOD & NUTRITION A

Year Level: 10
Pathways: This subject provides an excellent grounding for students wishing to undertake Food and Hospitality subjects at Stage 1 and 2 levels.
Prerequisites: It is beneficial for students to previously have satisfactorily completed a unit of Year 8 and/or Year 9 Home Economics.
Length: 1 semester (Semester 1)

Course Description: In this topic students take an introduction into all areas of food production. Units covered consist of (but

not limited to); hygiene & safety procedures in the kitchen, healthy eating models & Australian Dietary Guidelines, cooking terminology, planning basic meals (food for special occasions), labelling & food additives, basic cooking skills, food preparation & packaging.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments, and is weighted as: Practical skills (70%) and a theory component (30%).

Additional Information: Cost: Students will need to supply certain ingredients for practical lessons and students must bring a container to practical lessons.

FOOD & NUTRITION B

Year Level: 10
Pathways: This subject provides an excellent grounding for students wishing to undertake Food and Hospitality subjects at Stage 1 and 2 levels.
Prerequisites: It is beneficial for students to previously have satisfactorily completed a unit of Year 8 and/or Year 9 Home Economics.
Length: 1 semester (Semester 2)

Course Description: In this subject students explore the requirements for planning a family meal. The course explores food safety, hygiene and spoilage, the nutritional needs across all age groups, dietary requirements, and food for special occasions,

cultural influences and time management skills. Practicals will consist of cooking a range of different foods and embeds investigative theory work in healthy eating patterns, nutrients, and dietary guidelines, multicultural food techniques, raising agents, baked foods and pastries.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments, and is weighted as: Practical skills and investigations (60%) and a theory component (40%).

Additional Information: Closed in shoes must be worn, hair must be tied back and students must bring a container to practical lessons. Cost: Students will be required to bring food for practical lessons. Students may also undertake an excursion.

FOOD & HOSPITALITY A & B

Year Level: 11 (Stage 1)
SACE Credits: 10 per semester
Prerequisites: Satisfactory achievement in Year 10
Length: 1 semester or 1 year (A-Sem 1; B-Sem 2)

Course Description: Students focus on the dynamic nature of the food and hospitality industry. They develop an understanding of contemporary approaches & issues related to food and hospitality. Students work independently and collaboratively. They develop skills and safe work practices in the preparation, storage and handling of food, complying with current health and safety legislation. Students investigate and debate contemporary food and hospitality issues and current management practices.

Students will complete five summative practicals: Food, the Individual & the Family; Local & Global Issues in Food & Hospitality; Trends in Food & Culture; Food & Safety; Food and Hospitality Careers. Students examine the factors that influence people's food choices and the health implications.

Assessment: Students demonstrate evidence of their learning through practical tasks, group activities and investigations.

Additional Information: This course is offered as either a single semester or full year subject. Closed in shoes must be worn, hair must be tied back and students must bring a container to all practical lessons. Students will need to supply certain ingredients for practical lessons. Students may also undertake an excursion.

FOOD & HOSPITALITY STUDIES

Year Level: 12 (Stage 2) **SACE Credits:** 20
Prerequisites: Satisfactory Achievement in Stage 1 Food and Hospitality is recommended.
Length: 1 year

Course Description: Students focus on the impact of the food and hospitality industry on Australian society and examine the contemporary and changing nature of the industry. Students develop relevant knowledge and skills as consumers and/or industry workers. Students will complete six summative practicals: Engineered Food; Summer Picnic Hamper; Exotic

and Creative Ingredients; Pasta Product; Baking and Decorating; Catering Enterprise.

Assessment: Students demonstrate evidence of their learning through: School-Based Assessment, Practical Activity - 50% (two written components and one practical assessment), Group Activity - 20%. External Assessment, Investigation - 30%.

Additional Information: Students will need to supply certain ingredients for the practical lessons. Students will be invoiced for specific resources relating to assessment tasks. Information regarding cost will be communicated throughout the year. Students may also undertake an excursion.

[FOOD TECHNOLOGY]

CHILD STUDIES

CHILD STUDIES A

Year Level: 10 **SACE Credits:** N/A
Pathways: Stage 1 & 2 Child Studies
Prerequisites: None
Length: 1 semester (Semester 1)

Course Description: In this subject students will complete the following topics: Action Plans & Evaluations; Pregnancy

& Childbirth; Childhood Health, Nutrition and Safety; Toddler Nutrition & Food Practical; Construct a Cot Quilt; and Construct a Busy Book.

Assessment: Assessment in this course will consist of various practical tasks and theory assignments.

Additional Information: Cost: Students will need to supply their own materials for the quilt and busy book.

CHILD STUDIES B

Year Level: 10
SACE Credits: N/A
Pathways: Stage 1 & 2 Child Studies
Prerequisites: Preferably completed Child Studies A
Length: 1 semester (Semester 2)

Course Description: Students will complete the following topics:

Action Plans & Evaluations; Growth & Development (social, physical, emotional, cognitive, language); Play & Its Importance; ELCC Observation; Construct a Child's Outfit.

Assessment: Assessment will include practical tasks & theory assignments.

Additional Information: Cost: Students will need to supply their own materials for the child's outfit.

CHILD STUDIES A

Year Level: 11 (Stage 1) **SACE Credits:** 10 credits
Pathways: Stage 2 Child Studies
Prerequisites: Satisfactory Achievement in Year 10 Child Studies and Year 10 Food and Nutrition
Length: 1 semester (Semester 1)

Course Description: Students examine the period of childhood from conception to eight years. This subject is also beneficial for students wishing to continue Child Studies in Stage 2. Students

will complete the following topics: Contemporary Childhood Issues; Diet & Pregnancy; Healthy Canteens; Child Safety.

Assessment: Students demonstrate evidence of their learning through action plans/practical/evaluations, research/practical/evaluations, investigation and group activity.

Additional Information: Students will be required to bring food and fabrics for practical lessons.

CHILD STUDIES B

Year Level: 11 (Stage 1) **SACE Credits:** 10 credits
Pathways: Stage 2 Child Studies
Prerequisites: Preferably completed Child Studies A
Length: 1 semester (Semester 2)

Course Description: In this subject students will examine the period of childhood from conception to eight years. This subject will be beneficial if wishing to complete Stage 2 Child

Studies. Students will complete the following topics: Children's Services; Child Development; Childhood Obesity; and, Planning a Children's Party.

Assessment: Students will demonstrate evidence of their learning through action plans/practical/evaluations, research/practical/evaluations, investigation and group activity.

Additional Information: Students will be required to bring food and fabrics for practical lessons.

CHILD STUDIES

Year Level: 12 (Stage 2)
SACE Credits: 20
Prerequisites: Satisfactory Achievement in Stage 1 Child Studies
Length: 1 year

Course Description: The Stage 2 subject focuses on children's growth and development from conception to eight years. Students study the following topics: Pregnancy and Diet; Children's Literature;

Children's Toys; Media Impact on Eating Habits; Inclusive Education (Learning Difficulties); Foods From Around The World.

Assessment: Students demonstrate evidence of their learning through the following assessment types: School-Based Assessment - Practical Activities (research/practical/evaluation & action plan/practical/evaluation - 50%). Group Activity - 20%. External Assessment - Investigation 30%.

Additional Information: Students will be required to bring food or fabrics for practicals.

[WORKPLACE PRACTICES]

WORKPLACE PRACTICES

Year Level: 11 or 12 (Stage 2)

SACE Credits: 20

Pathways: TAFE, apprenticeship or traineeship, employment.

Prerequisites: None

Length: 1 year

Course Description:

Students develop knowledge, skills, and understanding of the nature, type and structure of the workplace. They undertake negotiated topics designed for their needs, interests, and aspirations to gain knowledge of issues particularly relevant to their working environment or aspirations. Students can undertake vocational education and/or training (VET) and develop and reflect on their capabilities, interests, and

aspirations.

Students undertake three or more topics such as The Changing Nature of Work, Industrial Relations and Finding Employment and Vocational Learning and/ or VET.

Assessment:

The following assessment types enable students to demonstrate their learning through the following assessment types:

School-based Assessment (70%)

- Folio
- Performance (VET or workplace performance)
- Reflection

External Assessment (30%)

- Investigation

