



Echuca  
College

DIVERSITY OF  
STRENGTH

2017

10 - 12  
Curriculum  
Handbook

## **COLLEGE PROFILE**

At Echuca College we get to know our students as individuals so that we can focus on their development as resilient and responsible young adults, destined for success in a constantly evolving world. Our College is focused on 'Preparation for the Future, Today'.

The friendly and supportive learning environment at Echuca College is underpinned by clear expectations, a strong code of conduct and a compulsory uniform policy. The framework for our positive environment is strengthened by Year Levels working in specific neighbourhoods and being supported by a team of experienced Year Level Co-ordinators and Assistants. A positive and responsible approach to education fosters exemplary values of compassion, tolerance and respect for self and others.

The high standard of education delivered in all areas of the College is a tribute to the dedication, intellect and empathy of our teaching and support staff- all whom take collective pride and inspiration from our students. Our Teaching and Learning is enhanced by Leading Teachers; specifically assigned to stages of learning at Years 7 to 9 and Years 10 to 12.

Echuca College is large enough to provide a comprehensive curriculum and a range of programs and resources second to none in this area to meet the most fastidious of students. Echuca College is also small enough to achieve the closeness which allows students and staff to develop ongoing educational relationships in friendly and supportive learning neighbourhoods. Innovative teaching programs and staff commitment to ongoing professional learning will ensure that Echuca College will deliver an exceptional and fulfilling educational experience for every student now, and in the future.

The essentials of English and Mathematics (the gate keepers of learning) prepare all students for the challenges of every preferred pathway. Equally, every student will have satisfaction and success in extensive encounters with Science, Humanities, the Arts, Technology and Health and Physical Education throughout their early years. And even more... each week every student in Years 7 and 8 have the opportunity to enjoy studying an area of enthusiasm with other students and a staff member who share that enthusiasm in elective studies.

Our Learning Neighbourhoods and flexible learning spaces in Maths/Science, Technology and Visual Performing Arts have been designed to enable students and teachers to work more collaboratively. Students have great individualised tuition and this is promoted through the provision of 'state of the art' technology.

Whilst the majority of students come from the immediate rural cities of Echuca-Moama, approximately 30% travel along 20+ bus routes, some travelling an hour each way to access the education provided. The strong support and collaboration of our partner primary schools have ensured a seamless transition program for junior students to secondary education.





## Our Vision

Students at Echuca College are inspired and supported to achieve their best and develop the skills required to meet the challenges of an ever changing world in a caring learning environment.

## Our Values - PRIDE

- **PROGRESSIVE** - We continually evaluate and evolve to meet future needs of the students and the community
- **RESPECT** - We value and honour each other's rights, property and environment.
- **INCLUSIVE** - We ensure everyone has an opportunity to succeed, be safe and welcomed. We accept and recognise all values and strengths. We accept our differences, to build a strong community.
- **DEDICATED** - We are committed to personal goals and to achieving our personal best.
- **EXCELLENCE** - We are committed to improvement. We demonstrate excellence in our appearance, in our actions, in our communication and in always doing our personal best.

## What our students say about our school

"A school that does not discriminate, moves forward and allows staff and students to achieve their personal best. Everyone in this school is equal, respectful and capable of excellence."

"It is a school of students and staff all striving to achieve their personal best in all areas not just while supporting the people around them."

"PRIDE is the action for all students and staff to take that will bring out the best in them and others around them."

"Everyone gets a say. A school that feels proud. They all get included and all have a go. Echuca College pride shows that everyone tries their personal best."

"It is where everyone gets a say and that we help each other out and also to try our best for yourself and others."

"Everyone at Echuca College working together to achieve and strive to be their best, assisting in the development of each other and ourselves while respecting and including everyone no matter what their faiths, beliefs and opinions are. Accepting a more active role in our learning and development."

## VCE INFORMATION (VICTORIAN CERTIFICATE OF EDUCATION)

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VCE stands for the Victorian Certificate of Education. The Victorian Curriculum and Assessment Authority (VCAA) administers this certificate. Details of the rules and procedures are available in a range of documents and can be obtained from the school or from the VCAA's website [www.vcaa.vic.edu.au](http://www.vcaa.vic.edu.au). The VCE is intended as a two year course of study although it can be completed over a longer period of time. Students at Echuca College study 12 units in year 11 (6 units per semester) and 10 units in year 12 (5 units per semester).

## VCE INFORMATION (VICTORIAN CERTIFICATE OF EDUCATION)

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### VCE Graduation Requirements

To qualify for the VCE the following requirements must be met:

- A minimum of 16 units must be satisfactorily completed, including:
- Three units for the English Group, with at least 1 unit from unit 3 or 4. The English Group consists of Foundation English, English, English Language and Literature.
- Three 3 & 4 sequences (other than English).

Units 1 & 2 can be completed as single units and Units 3 & 4 must be undertaken as a sequence.

### Tertiary Entrance Requirements

To satisfy VTAC requirements the following must be completed:

- A minimum of 16 units must be satisfactorily completed, including a sequence of Unit 3 & 4 from the English group.
- A sequence of VCE/VET Units 3 & 4 in three studies apart from the English requirement.
- Prerequisite requirements set by each Tertiary Institute.

### Learning Outcomes

Each VCE unit has a set of two to four outcomes, these outcomes must be achieved for the satisfactory completion of the unit. Achievement of the outcomes is based on the teacher's assessment of the student's performance on assessment tasks designed for the unit.

A student may be granted satisfactory completion of a unit if:

- The work meets the required standard.
- College deadlines have been met (extensions may be applied for in certain circumstances).
- The work can be authenticated.
- Rules have not been breached, including attendance rules.

### Assessment

Failure to meet deadlines set by the school may result in an 'N' (not satisfactory) for the unit regardless of whether the outcomes have been satisfactorily met. Satisfactory completion of each unit is based on a decision that the student has demonstrated achievement of a set of outcomes specified for the unit.

## VCAL INFORMATION (VICTORIAN CERTIFICATE OF APPLIED LEARNING)

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The Victorian Certificate of Applied Learning [VCAL] is an applied learning option for Year 11 and 12 students. The VCAL provides the opportunity to build personal skills important for life and work, including literacy and numeracy skills, as well as practical work related experience via **structured workplace learning** for employability skills. It has a vocational focus.

Echuca College offers VCAL at Intermediate Certificate Level (usually done in Year 11), or Senior Certificate Level (usually done in Year 12) Levels.

Students who choose to do VCAL are more likely to be interested in going on to training at TAFE, an apprenticeship, or getting a job after completing school. VCAL does NOT mean a student cannot go to University. VCAL completed at the Senior level is accepted by some universities for admission—but there is no guarantee.

Year 11 students must do **12** units and Year 12 students must do **10** units that cover the 4 strands of VCAL:

- Literacy/Numeracy
- Personal Development
- Work Related Skills
- Industry Related Skills

### All students:

- **are to do Work Placement**
- **must do at least one VCAL Personal Development unit at the Certificate level**
- **must do a VET Certificate or be enrolled in an ASBA (by the end of March)**
- **must complete a Literacy unit at the certificate level in which they are enrolled**
- **must complete a unit in Numeracy or Mathematics**

<b>VCAL STRAND</b>	<b>POSSIBLE UNITS</b>
<b>Literacy</b>	Intermediate VCAL Literacy units Senior VCAL Literacy units VCE English units VCE Literature units
<b>Numeracy</b>	Intermediate VCAL Numeracy units Senior VCAL Numeracy units VCE Mathematics Any
<b>Work Related Skills</b>	Intermediate VCAL Work Related Skills units Senior VCAL Work Related Skills units Outdoor and Environment Units, Industry and Enterprise Units Technology units, any VET Certificates
<b>Industry Specific Skills</b>	VET Certificates Australian School Based Apprenticeship (ASBA)
<b>Personal Development</b>	Intermediate VCAL Personal Development units Senior VCAL Personal Development units

## VETis INFORMATION (VOCATIONAL EDUCATION AND TRAINING IN SCHOOLS)

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VETis provides additional breadth to the traditional programs available, and it gives students the opportunity, before leaving school, to obtain a nationally recognised training credential endorsed by industry. Students can choose a VETis program as part of the VCE/VCAL course. A VETis program offers a vocational certificate with VCE credit built in, just like other VCE studies. VCE VET programs will give credits at Units 1-4. This means that a student would undertake training in a specific vocational area.

As part of their training students will complete structured workplace learning, this can be between **10 & 30 days over the 2 year program**, depending on the certificate that is chosen. The structured workplace learning will provide students with the opportunity to put their knowledge and skills into practice. This training will contribute towards satisfactory completion of the VCE/VCAL and the student will be awarded with a nationally recognised vocational qualification. The vocational qualification will provide students with access to further training, for instance at a TAFE institute, and may improve their chances of getting work after school.

### **VETis Certificate courses will be offered in the following areas:**

- Certificate II in Automotive Studies
- Certificate II in Beauty
- Certificate II in Building and Construction [Pre-Apprenticeship]
- Certificate II in Children Services\*
- Certificate II in Electrical
- Certificate II in Engineering Studies\*
- Certificate II in Equine Industry Studies
- Certificate II in Furniture Making
- Certificate II in Hospitality (Kitchen Operations)\*
- Certificate III in Music \*
- Certificate II in Sport and Recreation\*

A pre-apprenticeship is a nationally recognised qualification that has an automatic training and duration credit into the apprenticeship in the same industry area. A pre-apprenticeship training program prepares the student for entry into a trade based apprenticeship by equipping the student with foundation knowledge and skills.

Formal pre-apprenticeship arrangements have been approved by Skills Victoria for 21278VIC Certificate II in Furnishing (Pre-apprenticeship in Cabinet Making), 21844VIC Certificate II in Building and Construction, 22019VIC Certificate II in Engineering Studies and 22015VIC Certificate II in Automotive Studies (pre-vocational).

### **Reasons to consider a Vocational Education Course**

- Students can graduate with 2 Certificates (VETis Certificate & VCE or VCAL).
- A majority of the VETis Certificates have a Unit 3/4 scored assessment (these are marked with \*) which can be counted towards a student's ATAR.
- Students do work placements which means that they are getting experience that employers may consider in the employment selection process.
- They are designed to help a student prepare for employment if they don't want to continue their education after Year 12, or may help them to choose a career pathway.
- Some courses are taught off campus.
- Students should speak to the Pathways Managers.

### **Please note:**

**A \$200 deposit paid by the 1<sup>st</sup> of September will be required to secure a place in the VET course and attendance at the VETis information evening is compulsory. The remaining \$200 must be paid in full by the end of October.**

## **ASBA (AUSTRALIAN SCHOOL BASED APPRENTICESHIP)**

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Some students know what they would like to do in the way of a career after leaving school. A student can apply for an Australian School Based Apprenticeship program as part of their subject selection in Years 10, 11 & 12. As ASBA's are completed over 2 years it is preferred that students start in Years 10 or 11.

A School Based Apprenticeship and Traineeship offers students enrolled in the Victorian Certificate of Education (VCE) or the Victorian Certificate of Applied Learning (VCAL) the option of combining part-time employment, school and training. The program is undertaken under a training contract with an employer, has a training plan signed by the school and RTO which is formally registered with Skills Victoria and leads to a nationally recognised qualification at Certificate II, III or IV level.

A Registered Training Organisation provides learning modules, the employer provides 1000 hour of work placement over 2 years which usually means one day per week on the job (students must undertake at least 7 hours of employment and 6 hours of training per week) and the remaining four days are at the College completing VCE/VCAL units.

School Based Apprenticeship and Traineeship programs generally provide the same contribution to the VCE as their related VET in the VCE programs. Many school based apprentices and trainees move on to a full-time contract with their employer after leaving school, while others choose to continue their education and training at TAFE or university.

School Based Apprenticeships and Traineeships in the following industry areas have been approved by industry bodies and the VCAA for students undertaking VCE:

Agriculture; Automotive; Business; Community Services; Engineering; Food Processing (Wine); Horticulture; Hospitality; Information Technology; Sport and Recreation.

School Based Apprenticeships and Traineeships in other approved industry areas, may also contribute to the VCE through Block Credit Recognition.

### **An ASBA:**

- Means flexible training and experience in the workforce and a nationally recognised qualification while still studying at school.
- Enables students to finish Years 11 and 12 while starting their apprenticeship.
- Means students are paid a training wage or apprentice wage for the time they spend 'on-the-job' with their employer.
- Ensures students are covered by a training contract, which links to an industrial award or agreement.
- Improves educational and vocational pathways beyond school.

## **EXTRA CURRICULA PROGRAMS FOR STUDENTS IN YEARS 10-12**

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The College offers a range of extra curricula activities that aim to meet students' interest as well as adding additional breadth to their experience at Echuca College. Some of the extra curricula activities available to Year 10, 11 and 12 students include:

- Debating competitions
- Student Representative Council
- After School Maths Program
- Equestrian Team
- Theatre Sports competition
- Energy Breakthrough
- A vast number of sporting teams
- Camps – Year level
- Instrumental Music Program
- Student Exchange programs
- Mathematics and Science Competitions
- Dance performances
- A Gifted and Talented Program
- Varied lunch time activities

## A FINAL CHECK FOR CHOOSING UNITS

### A student should:

- Choose units that interest them and in which they believe they will have success
- Take advantage of VCE Unit 1 & 2, VET, and ASBA programs in Year 10.
- Choose prerequisites for further training or tertiary courses that they are considering
- Select units that lead to employment or a vocation they find appealing
- Select units that they have researched, discussed with staff and feel confident they can complete
- Consider the opportunity to undertake dual courses VET/VCE/VCAL.

### Students should not choose units because:

- Their friends are doing them
- They think they are an easy option

## YEAR 10 CURRICULUM OVERVIEW

All core subjects are studied for 5 periods per week.

- Core – Full Year Units, English and Mathematics
- Semi Core - Semester Units, VET Public Safety/Health
- Elective Units – 7 Units during the year

### Year 10 Sample Program

English	Maths Elective	VET Public Safety/Health	Year 10 Elective	Year 10 Elective	Yr.10 Elective or VCE Unit or VET
English	Maths Elective	Year 10 Elective	Year 10 Elective	Year 10 Elective	Yr.10 Elective or VCE Unit Or VET

Public Safety and Health is centred on delivering outcomes related to increasing on student engagement with community and developing life skills.

**Students should remember to choose a balanced course taking into account their planned VCE/VCAL programs in Year 11 and 12.**

### Access to Advanced Studies in Year 10

Although most students begin their VCE studies in Year 11, some are quite capable of completing a VCE unit in Year 10. All students at Echuca College will be enrolled in VET Public Safety as part of their Year 10 program, this program will count as a unit towards the students VCE certificate. Many students will elect to undertake two more VCE units or to commence a VET or an ASBA Certificate.

In order for a Year 10 student to advance to a VCE Unit 1 & 2 program the student must have satisfactorily completed year 9 and meet the following selection criteria:

- Have the support of their parents/guardians in seeking VCE studies.
- Have undertaken counselling involving a Pathways Co-ordinator.
- Obtain a recommendation from their relevant Year Level Team Leader.

**Year 10 students may choose to undertake a Vocational Education and Training (VET) or an Australian School Based Apprenticeship (ASBA) as part of their program. See page 7& 8 for further information.**

We aim to develop confident and informed young adults who are socially responsible and are prepared for further learning and the workplace.

### Please Note

Students wishing to complete Outdoor Education at the VCE level will need to complete Units 1 & 2 whilst in Year 10 and Units 3 & 4 whilst in Year 11. This is to allow for the amount of time needed for camps and excursions.

# YEAR 11 & 12 CURRICULUM OVERVIEW

## Sample VCE Program

Year 11 Semester 1	English Study	Elective Unit 1	Elective Unit 1	Elective Unit 1	Elective Unit 1	Elective/VET/ASBA
Year 11 Semester 2	English Study	Elective Unit 2	Elective Unit 2	Elective Unit 2	Elective Unit 2	Elective/VET/ASBA
Year 12 Semester 1	English Study	Elective Unit 3	Elective Unit 3	Elective Unit 3	Elective Unit 3	Private Study
Year 12 Semester 2	English Study	Elective Unit 4	Elective Unit 4	Elective Unit 4	Elective Unit 4	Private Study

### Unit 1 & 2 Assessment Tasks

An assessment task is a specific piece of work which is to be graded and is used for reporting purposes. This may be a test, model, writing folio, research project etc. Assessment tasks are set to determine achievement of outcomes and levels of performance at Unit 1 & 2 level.

### Unit 3 & 4 School-Assessed Coursework (SACs)

School-assessed coursework is made up of a number of assessment tasks that are specified in the study design. These assessment tasks are used to assess the learning outcomes.

To ensure that school's assessments of coursework in each study are comparable throughout the State, schools' coursework assessments are statistically moderated by VCAA, using the examination results in that study. VCAA issue final grades for all coursework assessments in December each year.

### Unit 3 & 4 School-Assessed Tasks (SATs)

A small number of studies will have school-assessed tasks. These will be used in studies where products and models are assessed. Art, Design and Technology, Food and Technology, Media Studies, Studio Art, Systems Engineering and Visual Communication and Design have SATs. These generally take a number of weeks to complete.

### Examinations

Examinations are held in November. Oral and Performance examinations are during October.

All students studying a Unit 3 & 4 sequence are also required to sit the General Achievement Test (GAT). The GAT scores are used by the VCAA to check that grades given by teachers for school assessed coursework and tasks are in the expected range.

### Study Scores

A student's overall achievement for each study will be calculated and reported as a Study Score (Relative Position) on a scale of 1-50. In order to achieve a study score a student must achieve an S for both Units 3 & 4.

### Australian Tertiary Admission (ATAR)

An ATAR is used by most tertiary institutions to determine who will be made an offer to study with them. The ATAR is composed of the marks gained in level 3 and 4 units. An ATAR generally includes the score in English or Literature, plus the **next best 3 studies**, plus 10% of the 5<sup>th</sup> and 10% of the 6<sup>th</sup> study. This calculation includes both VCE and VET courses.

### Victorian Curriculum and Assessment Authority (VCAA) Reporting

At the completion of the VCE, which usually takes two years, the VCAA issues each student the following reports:

- A VCE Certificate, indicating that VCE requirements have been met
- A statement of results showing S or N and appropriate Coursework Assessment grades for all sequences of 3 / 4 units attempted
- A study score (relative position) for each subject
- A statement of results from the GAT

At completion of the VCAL each student receives:

- A VCAL Certificate indicating the level of attainment
- A statement of results from the GAT
- A statement of results showing S or N and appropriate Coursework Assessment grades for all sequences of 3 / 4 units attempted

### Promotion

Students who do not meet the required standards for Year 10 will have their performance reviewed by the VCE Team Leader and/or The Year 10 Team Leader and/or Assistants.

Promotion will only be granted where it is established that the student has the ability to experience success in the post compulsory program provided by Echuca College and have demonstrated a willingness to adopt more productive work habits.

## A GUIDE TO MATHEMATICS PATHWAYS

These are the most common pathways.

Other possibilities should be discussed with your Math's teacher.

### YEAR 10

**PREPARATORY  
GENERAL MATHS**

**PREPARATORY  
MATHS METHODS**

### YEAR 11

#### **FOUNDATION MATHS**

Choose this option if you find Maths hard, but you still want to do Year 11 Maths

**OR**

#### **VCAL NUMERACY**

Choose this option if you are planning to do VCAL Literacy as well. This Maths is easier than Foundation Maths.

#### **YEAR 11 GENERAL MATHS**

Choose this Maths if you think you want to do Maths at Year 12, but you sometimes find it hard.

#### **YEAR 11 MATHS METHODS**

Choose this Maths if you find Maths fairly easy and you definitely want to continue on to Year 12

**OR**

#### **YEAR 11 MATHS METHODS AND SPECIALIST MATHS \***

Choose this combination if you know you need Specialist Maths for university - e.g. you want to be an Engineer.

### YEAR 12

**NO MATHS AT YEAR 12**

**VCAL NUMERACY**

**YEAR 12 FURTHER MATHS**

**OR**

**NO MATHS AT YEAR 12**

**YEAR 12 MATHS METHODS**

**MATHS METHODS AT  
YEAR 12**

**OR**

**MATH METHODS &  
SPECIALIST AT YEAR 12**

\* If wishing to study Specialist Maths at Year 12 it is preferable to have completed Year 11 General Maths Tertiary

# Year 10 Subject Outlines

## ENGLISH

### ENGLISH

#### Course Content

At Year 10 students continue to practise, consolidate and extend what they have learned from previous levels. They also extend their understanding of how language works, and learn to transfer this knowledge to different contexts. To achieve this, students develop an understanding of the requirements of different types of texts; they are introduced to increasingly sophisticated analyses of various kinds of literary, popular culture, and everyday texts, and they are given opportunities to engage with the technical aspects of texts, including those of their own choosing – and to explain why they made that choice.

#### Reading and Viewing

Reading and viewing involves understanding, interpreting, reflecting upon, and enjoying written and visual, print and non-print texts. Reading involves active engagement with texts and the development of knowledge about the relationship between them and the contexts in which they are created.

#### Writing

Writing refers to the active process of conceiving, planning, composing, editing and publishing fiction and non-fiction texts. Writing involves using appropriate language for particular purposes or occasions to represent and reflect on ideas, issues, arguments, events, experience, character, emotion and information.

#### Speaking and Listening

Speaking and listening refers to the various formal and informal ways oral language is used to convey and receive meaning. It involves the development and demonstration of knowledge about the appropriate oral language for particular audiences and occasions, including body language and voice.

### LITERATURE

#### Course Content

This is an advanced unit for English students which focuses on how authors create texts to express views and values. This unit uses a broad range of written, oral and visual material to explore Australian and international literature through the study of texts from different historical periods and cultural contexts. Novels, film, short stories, poetry and plays will be studied.

#### Topics:

- Individual and group oral activities with an emphasis on discussion and the expression of a point of view in response to texts studied.
- The reading and study of two specified Australian novels and selected short stories. All students will study the same two print texts.
- The study of film as literature.
- Writing with purpose and language exploration with an emphasis on the importance of planning, drafting, and editing.

## MATHEMATICS

### PREPARATORY MATHS METHODS 1

This is an advanced unit suited to students with **particularly strong ability and interest in mathematics**. The course will provide students with the opportunity to extend beyond the level six standards and so attain the highest grades possible in the Victorian Curriculum assessment scheme. This subject will prepare students well for the most demanding of Year 11 VCE Mathematics units available – Mathematical Methods Units 1 & 2 and Specialist Maths Units 1 & 2.

#### Topics

Real Number System; Algebra; Linear Equations; Simultaneous equations; Linear Graphs; Geometry; Matrices

### PREPARATORY MATHS METHODS 2

This is an advanced unit suited to students with **particularly strong ability and interest in mathematics**. The course will provide students with the opportunity to extend beyond the level six standards and so attain the highest grades possible in the Victorian Curriculum assessment scheme. This subject will prepare students well for the most demanding of the Year 11 VCE Mathematics units available – Mathematics Methods Units 1 & 2 and Specialist Maths Units 1 & 2.

**Topics**

Factorisation Techniques; Quadratic Equations and Functions; Circular functions: Indices and Logarithms; Trigonometry; Probability

## PREPARATORY GENERAL MATHEMATICS 1

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Extension work will be provided for the more able students and, if this is completed, students may attain VELs level 6. It is expected that the majority of students studying this unit will progress to VCE General Maths in Year 11 and then Further Maths in Year 12.

**Topics**

Financial Maths; Measurement; Trigonometry; Financial Mathematics; Matrices

## PREPARATORY GENERAL MATHEMATICS 2

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This unit follows Preparatory General Maths 1 and is the Mathematics unit appropriate for most students in Year 10. Extension work will be provided and students who complete it satisfactorily may attain VELs level 6. It is expected that the majority of students studying this unit will progress to VCE General Maths in Year 11 and then Further Maths in Year 12.

**Topics**

Probability; Algebra; Geometry, Linear relationships, Statistics and Networks

## THE ARTS

### VISUAL ART

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**Course Content**

Students will be instructed in a range of art forms, aesthetics and design experiences with an increasing emphasis on the student's individual style and development. Students will further develop their knowledge and application of art elements, principles, concepts and artist's inspiration. Students will study a range of art styles and maintain a visual diary. Art is considered to be suitable preparation for VCE Studio Arts.

**Topics** - Art appreciation. Creating and making within a range of art forms. Art elements, principles and concepts. Development and resolution of personal style.

### DANCE

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**Course Content**

Students will develop dance skills, improvisation and understanding through the major study of Performance. Other areas of study include dance making skills and technique classes which will increase life skills such as confidence, self-esteem, cooperative citizenship and presentation excellence. Students will build fitness levels, musicality and dramatic expression.

**Topics** - Dance making and analysis, Performance participation, Learnt dance work, Dance analysis and critique.

### DRAMA

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**Course Content**

This unit focuses on drama work with voice, face, movement, characterisation and improvisation. Extended skills such as juggling, puppetry and film making are available. There is an emphasis on a major ensemble performance. Commitment and teamwork are essential. The course varies from year to year dependent on the interests and choices of each group of students.

**Topics** – Accents; Performance analysis; Improvisation and advanced theatre sports; Expressive movement; Group devised performance/storythread/docudrama; Scriptwriting; Monologue (Including Shakespeare); Play construction; Self-evaluation; Facial expression; Film making; Juggling/puppetry.

## **MEDIA**

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### **Course Content**

Students will be introduced to the basic skills required to create media products. They will explore hardware and software used to create music, video, photography, animation and 2-D products such as poster and DVD covers. Students will be introduced to the basic conceptual techniques and analytic skills associated with each medium.

**Topics** - The Video camera; Shot composition; Camera movement; Importing footage; Editing footage; Digital SLR camera (photographic); Editing images; Layout and typography.

## **PHOTOGRAPHY**

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### **Course Content**

Students will further develop the skills required to work with digital photographic equipment. Students will learn to apply compositional techniques gaining an understanding of the history of photography and appreciation of photographic aesthetics. Students will develop photo manipulation techniques using Adobe Photoshop. This subject is considered a suitable pathway for VCE Studio Arts, Art and Media.

**Topics** - DSLR cameras, Automatic and manual settings, White balance, Advanced techniques, Layers and masks, Electronic folios, Photographic styles.

## **VISUAL COMMUNICATION DESIGN**

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### **COURSE CONTENT**

Students who select this subject should have an interest in design and the ability to create a range of possible solutions to design problems. A range of topics is covered from both aspects of this subject – creative (graphic design) and conventional (architectural and engineering). Computer, freehand and technical drawing techniques are developed.

**Topics** - Graphic design in advertising; Symbol design – corporate identity; Architectural planning; Lettering – construction and purpose

## **LANGUAGES**

### **VCE VET INDONESIAN**

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Qualification: Certificate II in Indonesian

Learn: Practical language skills and everyday communication in both social and vocational settings.

Leads to: Certificate III in Indonesian, VCE Indonesian.

### PHYSICAL EDUCATION – 1

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#### **Course Content**

This unit is designed to encourage students to develop their skills as coaches and to investigate their roles and responsibilities, both on and off the field. Improvement in the impact of technology on sport performance and drugs in sport will be also investigated. Students will have practical experience by focussing on improving their fundamental motor skills and skill acquisition.

**Topics-** Qualities of effective coaches, roles and responsibilities of coaching, peer coaching, fundamental motor skills, skill acquisition, role of technology, drugs in sport, modified games and a range of team and individual sports.

### PHYSICAL EDUCATION – 2

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#### **Course Content**

This unit is designed to encourage students to develop their level of fitness skills and knowledge in training methods, energy systems and injury management. Students will have practical experience by focussing on improving their fitness level through testing and a variety of training methods such as fitness circuits and weight training.

**Topics-** Fitness, energy systems, injury management, modified games and a range of individual sports and fitness training programs.

### PHYSICAL EDUCATION – OUTDOOR EDUCATION/ RECREATION

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#### **Course Content**

This unit is designed to expose students to a variety of non-traditional team sports and recreational and outdoor pursuits in the local area. It is hoped that this participation will encourage students to pursue alternative approaches to health and physical fitness and develop lifelong participation in physical activity and a greater awareness, respect and knowledge for the environment.

**Topics-** Benefits of physical activity, measuring physical activity, recreational facilities in the local area, body systems, archery, golf, badminton, tennis, lawn bowls, bocce, croquet, yoga, clay target shooting, ten pin bowling, self-defence, safety, orienteering, bush craft and canoeing.

## **AGRICULTURE**

### **Course Content**

This subject investigates various types of farming as a profitable business. Farming enterprises could include beef cattle, dairy, sheep, poultry or pigs. Students will attend at least one excursion where research will be carried out. Students will carry out practical exercises and theoretical exercises related to climate, soil and land management. Possible projects include, hatching chicks, observing calf births, speaking with farm managers and growing vegetables. The subject will also look at maintaining the environment for future generations.

**Topics** - Farming as a business, Ecology/Biodiversity, Sheep, Poultry, Weeds, Farming and the environment, Farm Machinery

## **BIOLOGY**

### **Course Content**

This subject investigates microscopy, microbiology and genetics. Students will become familiar with the use of various types of microscopes and use their skills to investigate various areas of microbiology. They will study how micro-organisms can be both beneficial and harmful to humans. In genetics, the role of DNA and genes in cell division and inheritance will be studied. Students will undertake a detailed study in an area of Biotechnology such as genetic engineering and investigate the implications of modern scientific research.

**Topics** - Microscopy, Genetics, Microbiology

## **CHEMISTRY**

### **Course Content**

Students examine the historical development of the Periodic Table and atomic theory. They investigate and explain trends in the Periodic table and link electronic configuration of atoms to the types of bonding that occur. Students study the models for metallic, ionic and covalent bonding and relate this to physical properties of substances. They explore quantitative concepts such as empirical formula, percentage composition and the mole concept. Students become familiar with the use of chemical symbols, formulae and equations to describe observations and data collected during experiments. They also study reaction rates, enthalpy changes and types of reactions, with a focus on precipitation, acid-base and redox reactions. Students also investigate Organic Chemistry.

**Topics** - Matter, Atomic Theory, Kinetic Theory, the Periodic Table, Bonding, Chemical Reactions and Equations, The Mole Concept, Organic Chemistry

## **PHYSICS**

### **Course Content**

This subject investigates Waves and Light, Motion, Electricity and Nuclear Physics. Students will learn about waves and the electromagnetic spectrum and their use in modern society. Students will investigate kinematics and energy and apply their knowledge in the context of flight. Nuclear reactions, radioactivity and applications to nuclear power generation as well as electricity and its use will be studied.

**Topics** - Waves and Light, Motion, Nuclear Physics, Electricity

## **PSYCHOLOGY**

### **Course Content**

Students explore the relationship between mind and behaviour. The key areas covered in this unit are Forensic Psychology, Educational and Developmental Psychology, Mental disorders and illnesses as well as Research methods used in Psychology. Students will also see how Psychological theories can apply to everyday situations and have further understanding of human behaviour.

**Topics** - Psychology as a Science, Psychology as a profession, Research methods in psychology

## HUMANITIES

### CIVICS AND CITIZENSHIP - THE LAW AND YOU

#### Course Content

In this unit, students explore the different types of law, identifying the difference between criminal and civil law. They learn about Australia's system of government and examine the process of a Federal election. Students study the Australian court system at depth, covering aspects such as the hierarchy and appealed decisions. They identify how laws can be changed and how they as individuals can influence these changes. Students also explore the powers of the police force.

**Topics** - Australia's System of Government, Political Parties, Parliament Made Law, Criminal and Civil Law, The Court Hierarchy, The Role of the Police

### ECONOMICS - BUSINESS AND ENTERPRISE

#### Course Content

This unit will explore the contribution of Australian entrepreneurs to the Economy. Students will study what is involved in managing a business, focussing on ownership structures, marketing and financial management. They will analyse the Australian economy, exploring concepts such as the market mechanism, economic issues and the role of government. The Global Economy will also be explored through the study of International trade, foreign exchange and globalisation.

**Topics** - Enterprise, Innovation and Entrepreneurship; Managing a business; The Australian Economy; The Global Marketplace.

### GEOGRAPHY - SUSTAINABILITY

#### COURSE CONTENT

This unit examines Environmental Management, focussing on global warming, coastal regions and global wellbeing. Students use geographical thinking, skills and technological tools to examine some environmental challenges that will affect their future lives, and to find out how geography contributes to the understanding and management of these challenges. Students will study the nature of wellbeing around the world and how it can be measured.

**Topics** - Environmental Change and Management, Global wellbeing

### HISTORY – A CHANGING AUSTRALIA

#### Course Content

This unit introduces students to Australia during the inter-war period, exploring the Roaring Twenties and the Great Depression. Students complete a depth study of WWII, looking at significant events of the war in Europe and in the Pacific. The Cold War period is studied, exploring aspects such as the conflict in Vietnam. Students will also develop their knowledge of the fight for civil rights, both in the US and for Indigenous Australians.

**Topics** - The Inter-war period; WW2; The Cold War; Rights and Freedoms.

## DESIGN CREATIVITY & TECHNOLOGY UNITS

### BUILDING STUDIES

#### Course Content

This unit has a focus on the Building Industry and associated career opportunities. Students will be required to design make and evaluate a project of their choice. The project could be for an outside purpose or inside. Skill development and O H & S are important elements of this unit.

**Topics** - Design planning; Drawing and developing procedural plans; Material costing and purchase requirements; The development of design prototyping; Safe use and understanding of tools and equipment

## FOODS - FOODIES TRAIL

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### Course Content

Students will enhance their knowledge of the design process by investigating, designing, producing and evaluating. Students learn about the many influences on Australian cuisine and authentic foods and cooking styles around the world, including Asian, European, Mexican, and African as well as many others. They start with a passport and collect a stamp and a flag for each country studied. Students use the design process to design and produce their own authentic dinner party using foods and recipes of a cuisine of their choice. They investigate a country and produce and present an informative presentation.

## FOODS - CREATIVE COOKING

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### Course Content

Creative cooking is designed to develop an appreciation for food and its use in everyday life. This unit provides students with the opportunity to develop and extend skills in how to keep food safe through preservation. Consumer awareness is investigated looking at current labelling and marketing trends. The subject also assists with employment in the hospitality area and provides an excellent background for VCE Food and Technology. Students considering further education or employment in food at TAFE or University will also benefit.

**Topics** - Food safety, poisoning and spoilage, preservation techniques; convenience foods – processing and comparison to home-made; role and function of packaging, technological developments and innovations; food product development and marketing; the Dairy Industry, eating green and sustainability in food production, Indigenous foods and flavours, design activities using the Design Process – creative cupcakes, risotto, dairy creation.

## ICT

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### Course Content

In this course students will focus on a range of software applications, and solving tasks using the following: Word, Excel, Power Point and Dream Weaver. Students will use software to design and develop a Business Plan which solves a predetermined design brief of a business or organisation which conducts their business over the World Wide Web. Students will create a business plan for an imaginary business, create the marketing requirements for an e-biz webpage and animated logo and study the unique requirements using the web as its base eg: legislation, copyright, advantages, disadvantages.

**Topics** - Microsoft Word – activities; Microsoft Powerpoint – activities; Microsoft Excel – activities; Dream Weaver – activities

## METALS FABRICATION

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### Course Content

This unit examines the uses of selected materials; the processes, tools, equipment and machines related to the materials; and the criteria used for the selection of a material. Students are required to: undertake production tasks that develop knowledge of materials, skills in the use of tools, machines and equipment associated with the material, and skills in a range of construction and production techniques; plan and conduct workshop material testing procedures, establish safe working practices, develop and apply skills of observation, evaluate results and make recommendations about material selection; broaden their knowledge of issues arising from materials and technology.

**Topics** - Learn and adhere to correct workshop safety practices. Make a teacher negotiated project incorporating basic skills and processes. Complete theory and calculation exercises as well as an investigation project. Cut materials using hand processes and then form them into appropriate shapes. Select appropriate welding processes for particular applications. Complete practical welding skills

## SYSTEMS MECHANICAL

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### Course Content

In Systems Mechanical students are required to diagnose, test, evaluate and repair mechanical devices. In this unit, students may provide their own mechanical projects and any other parts that may be required to repair them.

**Topics** - Diagnostics; Reassembling mechanical devices; Testing, measurements and evaluation; Plan repair methods; Disassembly and cleaning

# WOOD, DESIGN & PRODUCTION

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## **Course Content**

In this unit, students focus on the development of a wood based production piece using the Design Process in consultation with a client. The concept of prototyping as part of the design development will be an important aspect of the establishment of the preferred option. The maintenance and safe operation of tools and equipment will be an important element of the unit.

**Topics** - Design planning; The development of design prototyping; Drawing and developing procedural plans; Safe use and understanding of tools and equipment; Material costing and purchase requirements

## VCE UNITS 1-4 COURSE DESCRIPTIONS

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### ACCOUNTING 1 – ESTABLISHING AND OPERATING A SERVICE BUSINESS

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**Unit Statement** - This unit focuses on the establishment of a small business and the accounting and financial management of the business. Students are introduced to the processes of gathering and recording financial data and the reporting and analysing of accounting information by internal and external users. The cash basis of recording and reporting is used throughout this unit. Using single entry recording of financial data and analysis of accounting information, students examine the role of accounting in the decision-making process for a sole proprietor of a service business.

**Content** - Going into business; Recording financial data and reporting accounting information

**Outcomes** - Describe the resources required, and explain and discuss the knowledge and skills necessary, to set up a small business. Identify and record, the financial data, and report and explain accounting information, for a sole proprietor of a service business.

### ACCOUNTING 2 – ACCOUNTING FOR A TRADING BUSINESS

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**Unit Statement** - This unit extends the accounting process from a service business and focuses on accounting for a sole proprietor of a single activity trading business. Students use a single entry recording system for cash and credit transactions and the accrual method for determining profit. They analyse and evaluate the performance of the business using financial and non-financial information. Using these evaluations, students suggest strategies to the owner on how to improve the performance of the business.

**Content** - Recording financial data and reporting accounting information ; ICT in accounting; Evaluation of business performance

**Outcomes** - Record and report financial data and information for a sole trader. Record financial data and report accounting information for a single activity sole trader using a commercial accounting software package, and discuss the use of ICT in the accounting process. Select and use financial and non-financial information to evaluate the performance of a business and discuss strategies that may improve business performance.

### ACCOUNTING 3 – RECORDING AND REPORTING FOR A TRADING BUSINESS

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**Unit Statement** - A background in Unit 2 Accounting is recommended. This unit focuses on financial accounting for a single activity trading business as operated by a sole trader and emphasises the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting. The perpetual method of stock recording with the First In, First Out (FIFO) method is also used.

**Content Outline** - Recording of financial data; Balance day adjustments and reporting and interpreting accounting information

**Outcomes** - Record financial data for a single activity sole trader using a double entry system, and discuss the function of various aspects of this accounting system. Record balance day adjustments and prepare and interpret accounting reports.

### ACCOUNTING 4 - CONTROL AND ANALYSIS OF BUSINESS PERFORMANCE

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**Unit Statement** - This unit provides an extension of the recording and reporting processes from Unit 3 and the use of financial and non-financial information in assisting management in the decision-making process. The unit is based on the double entry accounting system and the accrual method of reporting for a single activity trading business using the perpetual inventory recording system. Students investigate the role and importance of budgeting for the business and undertake the practical completion of budgets for cash, profit and financial position. Students interpret accounting information from accounting reports and graphical representations, and analyse the results to suggest strategies to the owner on how to improve the performance of the business.

**Content Outline** - Extension of recording and reporting; financial planning and decision-making

**Outcomes** - Record and report financial data using double entry accounting and report accounting information using an accrual-based system for a single activity sole trader, and discuss the function of various aspects of this accounting system. Prepare budgets and variance reports, evaluate the performance of a business using financial and non-financial information and discuss strategies to improve the profitability and liquidity of the business.

## AGRICULTURE & HORTICULTURAL STUDIES 1

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**Unit Statement** - In unit 1 students study local agricultural and horticultural operations and the factors that influence these operations, including historical, environmental, social and economic factors. Students apply their knowledge and skills in researching the feasibility and establishment of a small agricultural and/or horticultural business project.

**Content Outline** - Influences on Australian agricultural and horticultural systems; Agricultural and horticultural systems.  
**Outcomes** - Describe a range of biological, physical and human resources and their influence on horticultural systems in the local area and explain the importance of the application of scientific principles in production. Plan, implement and evaluate management and production activities to operate a small agricultural and/or a horticultural business project including the care of living things.

## AGRICULTURE & HORTICULTURAL STUDIES 2

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**Unit Statement** - This unit focuses on plant and animal nutrition, growth and reproduction and their relationships with agribusiness systems.

**Content Outline** - Students use a small business project to explore the role of agribusiness; Production systems and processes

**Outcomes** - Explain the nutritive and reproductive processes of plants and animals, their application to agricultural and horticultural production systems, and specific biological factors that influence production systems. Review and report on the production processes and marketing of a small agricultural and/or horticultural business project, demonstrating how the business adds value to the product and manages the risk.

## AGRICULTURE & HORTICULTURAL STUDIES 3

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**Unit Statement** - This unit focuses on a range of technology that is currently used by commercial agricultural and/or horticultural businesses, and reviews the areas where change and innovation are occurring. The likely impact of new and emerging developments in technology on the business will be reviewed and analysed.

**Content Outline** - Current technology; New and emerging technology; Business design

**Outcomes** - Analyse and evaluate a range of technologies commonly used in agricultural and/or horticultural businesses explain the reasons for the selection and application of technology for a specific business. Describe and analyse a range of new or emerging technologies and evaluate the likely impact of a selected innovation on the sustainability of a specific agriculture/horticulture business. Design and implement and report on progress of a small commercial agricultural or horticultural business project that involves the management and care of living plants or animals.

## AGRICULTURE & HORTICULTURAL STUDIES 4

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**Unit Statement** - This unit focuses on the management of agricultural and/or horticultural systems within the context of economic, social and environmental sustainability. It takes a holistic ecological approach to issues associated with land, plant and animal management. Students are expected to apply the principles and concepts of such an approach across a range of agricultural and/or horticultural situations.

**Content Outline** - Business plan implementation and evaluation; Sustainability in agriculture and/or horticulture; Resource management & maintenance

**Outcomes** - Monitor the continued operation of the small business project commenced in Unit 3 Outcome 3, and evaluate and report on its operation and outcomes in relation to the business plan. Evaluate sustainable resource management practices within agriculture and/or horticulture. Apply and analyse management techniques that promote economic, social and environmental sustainability of agriculture/horticulture business.

## **BIOLOGY 1 - HOW DO LIVING THINGS STAY ALIVE?**

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**Unit Statement** - In this unit students are introduced to some of the challenges to an organism in sustaining life. Students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, and the requirements for sustaining cellular processes in terms of inputs and outputs. They analyse types of adaptations that enhance the organism's survival in a particular environment and consider the role homeostatic mechanisms play in maintaining the internal environment. Students investigate how a diverse group of organisms form a living interconnected community that is adapted to, and utilises, the abiotic resources of its habitat. The role of a keystone species in maintaining the structure of an ecosystem is explored. Students consider how the planet's biodiversity is classified and the factors that affect the growth of a population.

**Outcomes** - On completion of this unit the student should be able to investigate and explain how cellular structures and systems function to sustain life, be able to explain how various adaptations enhance the survival of an individual organism, investigate the relationships between organisms that form a living community and their habitat, and analyse the impacts of factors that affect population growth. . A student practical investigation related to the survival of an organism or species is also undertaken in. The investigation draws on content from Area of Study 1 and/or Area of Study 2

## **BIOLOGY 2 - HOW IS CONTINUITY OF LIFE MAINTAINED?**

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**Unit Statement** - In this unit students focus on cell reproduction and the transmission of biological information from generation to generation. Students learn that all cells are derived from pre-existing cells through the cell cycle. They examine the process of DNA replication and compare cell division in both prokaryotic and eukaryotic organisms. Students explore the mechanisms of asexual and sexual reproductive strategies, and consider the advantages and disadvantages of these two types of reproduction. The role of stem cells in the differentiation, growth, repair and replacement of cells in humans is examined, and their potential use in medical therapies is considered. Students use chromosome theory and terminology from classical genetics to explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. They explore the relationship between genes, the environment and the regulation of genes in giving rise to phenotypes. They consider the role of genetic knowledge in decision making about the inheritance of autosomal dominant, autosomal recessive and sex-linked genetic conditions. In this context the uses of genetic screening and its social and ethical issues are examined.

**Outcomes** - On completion of this unit the student should be able to compare the advantages and disadvantages of asexual and sexual reproduction, explain how changes within the cell cycle may have an impact on cellular or tissue system function and identify the role of stem cells in cell growth and cell differentiation and in medical therapies. The student should be able to apply an understanding of genetics to describe patterns of inheritance, analyse pedigree charts, predict outcomes of genetic crosses and identify the implications of the uses of genetic screening and decision making related to inheritance. Students should also be able to investigate and communicate a substantiated response to a question related to an issue in genetics and/or reproductive science.

## **BIOLOGY 3 – HOW DO CELLS MAINTAIN LIFE?**

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**Unit Statement** - In this unit students investigate the workings of the cell. They explore the importance of the insolubility of the plasma membrane in water and its differential permeability to specific solutes in defining the cell, its internal spaces and the control of the movement of molecules and ions in and out of such spaces. Students consider base pairing specificity, the binding of enzymes and substrates, the response of receptors to signalling molecules and reactions between antigens and antibodies to highlight the importance of molecular interactions based on the complementary nature of specific molecules.

Students study the synthesis, structure and function of nucleic acids and proteins as key molecules in cellular processes. They explore the chemistry of cells by examining the nature of biochemical pathways, their components and energy transformations. Cells communicate with each other using a variety of signalling molecules. Students consider the types of signals, the transduction of information within the cell and cellular responses. At this molecular level students study the human immune system and the interactions between its components to provide immunity to a specific antigen.

**Outcomes** - On completion of this students should be able to explain the dynamic nature of the cell in terms of key cellular processes including regulation, photosynthesis and cellular respiration, and analyse factors that affect the rate of biochemical reactions. Students should be able to apply a stimulus-response model to explain how cells communicate with each other, outline human responses to invading pathogens, distinguish between the different ways that immunity may be acquired, and explain how malfunctions of the immune system cause disease.

## **BIOLOGY 4 - HOW DOES LIFE CHANGE AND RESPOND TO CHALLENGES OVER TIME?**

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**Unit Statement** - In this unit students consider the continual change and challenges to which life on Earth has been subjected. They investigate the relatedness between species and the impact of various change events on a population's gene pool.

The accumulation of changes over time is considered as a mechanism for biological evolution by natural selection that leads to the rise of new species. Students examine change in life forms using evidence from palaeontology, biogeography, developmental biology and structural morphology. They explore how technological developments in the fields of comparative genomics, molecular homology and bioinformatics have resulted in evidence of change through measurements of relatedness between species.

Students examine the structural and cognitive trends in the human fossil record and the interrelationships between human biological and cultural evolution. The biological consequences, and social and ethical implications, of manipulating the DNA molecule and applying biotechnologies is explored for both the individual and the species.

**Outcomes** - On completion of this unit students should be able to analyse evidence for evolutionary change, explain how relatedness between species is determined, and elaborate on the consequences of biological change in human evolution. Students should be able to describe how tools and techniques can be used to manipulate DNA, explain how biological knowledge is applied to biotechnical applications, and analyse the interrelationship between scientific knowledge and its applications in society. A student-designed or adapted investigation related to cellular processes and/or biological change and continuity over time is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4. The investigation is to relate to knowledge and skills developed across Units 3 and 4 and may be undertaken by the student through laboratory work and/or fieldwork.

## **BUSINESS MANAGEMENT 1- PLANNING A BUSINESS**

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**Unit Statement** - Businesses of all sizes are major contributors to the economic and social wellbeing of a nation. Therefore how businesses are formed and the fostering of conditions under which new business ideas can emerge are vital for a nation's wellbeing. Taking a business idea and planning how to make it a reality are the cornerstones of economic and social development. In this unit students explore the factors affecting business ideas and the internal and external environments within which businesses operate, and the effect of these on planning a business.

**Outcomes** - On completion of this unit students should be able to describe how and why business ideas are created and developed, and explain the methods by which a culture of business innovation and entrepreneurship may be fostered in a nation. Students should be able to describe the external environment of a business and explain how the macro and operating factors within it may affect business planning. Students should also be able to describe the internal business environment and analyse how factors from within it may affect business planning.

## **BUSINESS MANAGEMENT 2- ESTABLISHING A BUSINESS**

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**Unit Statement** - This unit focuses on the establishment phase of a business's life. Establishing a business involves complying with legal requirements as well as making decisions about how best to establish a system of financial record keeping, staff the business and establish a customer base. In this unit students examine the legal requirements that must be satisfied to establish a business. They investigate the essential features of effective marketing and consider the best way to meet the needs of the business in terms of staffing and financial record keeping. Students analyse various management practices in this area by applying this knowledge to contemporary business case studies from the past four years.

**Outcomes** - On completion of this unit students should be able to explain the importance when establishing a business of complying with legal requirements and financial record keeping, and establishing effective policies and procedures. Students should be able to explain the importance of establishing a customer base and a marketing presence to achieve the objectives of the business, analyse effective marketing and public relations strategies and apply these strategies to business-related case studies. Students should also be able to discuss the staffing needs for a business and evaluate the benefits and limitations of management strategies in this area from both an employer and an employee perspective.

## **BUSINESS MANAGEMENT 3 – MANAGING A BUSINESS**

**Unit Statement** - In this unit students explore the key processes and issues concerned with managing a business efficiently and effectively to achieve the business objectives. Students examine the different types of businesses and their respective objectives. They consider corporate culture, management styles, management skills and the relationship between each of these. Students investigate strategies to manage both staff and business operations to meet objectives. Students develop an understanding of the complexity and challenge of managing businesses and through the use of contemporary business case studies from the past four years have the opportunity to compare theoretical perspectives with current practice.

**Outcomes** - On completion of this unit students should be able to discuss the key characteristics of businesses and stakeholders, and analyse the relationship between corporate culture, management styles and management skills. Students should be able to explain theories of motivation and apply them to a range of contexts, and analyse and evaluate strategies related to the management of employees. Students should also be able to analyse the relationship between business objectives and operations management, and propose and evaluate strategies to improve the efficiency and effectiveness of business operations.

## **BUSINESS MANAGEMENT 4 – TRANSFORMING A BUSINESS**

**Unit Statement** - Businesses are under constant pressure to adapt and change to meet their objectives. In this unit students consider the importance of reviewing key performance indicators to determine current performance and the strategic management necessary to position a business for the future. Students study a theoretical model to undertake change, and consider a variety of strategies to manage change in the most efficient and effective way to improve business performance. They investigate the importance of leadership in change management. Using a contemporary business case study from the past four years, students evaluate business practice against theory.

**Outcomes** - On completion of this unit students should be able to explain the way business change may come about, use key performance indicators to analyse the performance of a business, discuss the driving and restraining forces for change and evaluate management strategies to position a business for the future. Students should be able to evaluate the effectiveness of a variety of strategies used by managers to implement change and discuss the effect of change on the stakeholders of a business.

## **CHEMISTRY 1 HOW CAN THE DIVERSITY OF MATERIALS BE EXPLAINED?**

**Unit Statement** - The development and use of materials for specific purposes is an important human endeavour. In this unit students investigate the chemical properties of a range of materials from metals and salts to polymers and nanomaterials. Using their knowledge of elements and atomic structure students explore and explain the relationships between properties, structure and bonding forces within and between particles that vary in size from the visible, through nanoparticles, to molecules and atoms. Students examine the modification of metals, assess the factors that affect the formation of ionic crystals and investigate a range of non-metallic substances from molecules to polymers and giant lattices and relate their structures to specific applications. Students are introduced to quantitative concepts in chemistry including the mole concept. They apply their knowledge to determine the relative masses of elements and the composition of substances. Throughout the unit students use chemistry terminology including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from experiments, and to discuss chemical phenomena.

**Outcomes** - On completion of this unit the student should be able to relate the position of elements in the periodic table to their properties, investigate the structures and properties of metals and ionic compounds, and calculate mole quantities. The student should be able to investigate and explain the properties of carbon lattices and molecular substances with reference to their structures and bonding, use systematic nomenclature to name organic compounds, and explain how polymers can be designed for a purpose. Students should also be able to investigate a question related to the development, use and/or modification of a selected material or chemical and communicate a substantiated response to the question.

## **CHEMISTRY 2 WHAT MAKES WATER SUCH A UNIQUE CHEMICAL?**

**Unit Statement** - Water is the most widely used solvent on Earth. In this unit students explore the physical and chemical properties of water, the reactions that occur in water and various methods of water analysis. Students examine the polar nature of a water molecule and the intermolecular forces between water molecules. They explore the relationship between these bonding forces and the physical and chemical properties of water. In this context students investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. Students are introduced to stoichiometry and to analytical techniques and instrumental procedures, and apply these to determine concentrations of different species in water samples, including chemical contaminants. They use chemistry terminology including symbols, units, formulas and equations to represent and explain observations and data from experiments, and to discuss

chemical phenomena. Students explore the solvent properties of water in a variety of contexts and analyse selected issues associated with substances dissolved in water.

**Outcomes** - On completion of this unit the student should be able to relate the properties of water to its structure and bonding, and explain the importance of the properties and reactions of water in selected contexts. The student should be able to measure amounts of dissolved substances in water and analyse water samples for salts, organic compounds and acids and bases. Students should also be able to design and undertake a quantitative laboratory investigation related to water quality, and draw conclusions based on evidence from collected data.

### **CHEMISTRY 3- HOW CAN CHEMICAL PROCESSES BE DESIGNED TO OPTIMISE EFFICIENCY?**

**Unit Statement** - The global demand for energy and materials is increasing with world population growth. In this unit students explore energy options and the chemical production of materials with reference to efficiencies, renewability and the minimisation of their impact on the environment.

Students compare and evaluate different chemical energy resources, including fossil fuels, biofuels, galvanic cells and fuel cells. They investigate the combustion of fuels, including the energy transformations involved, the use of stoichiometry to calculate the amounts of reactants and products involved in the reactions, and calculations of the amounts of energy released and their representations. Students consider the purpose, design and operating principles of galvanic cells, fuel cells and electrolytic cells. In this context they use the electrochemical series to predict and write half and overall redox equations, and apply Faraday's laws to calculate quantities in electrolytic reactions.

Students analyse manufacturing processes with reference to factors that influence their reaction rates and extent. They investigate and apply the equilibrium law and Le Chatelier's principle to different reaction systems, including to predict and explain the conditions that will improve the efficiency and percentage yield of chemical processes.

They use the language and conventions of chemistry including symbols, units, chemical formulas and equations to represent and explain observations and data collected from experiments, and to discuss chemical phenomena.

**Outcomes**

On completion of this unit students should be able to compare fuels quantitatively with reference to combustion products and energy outputs, apply knowledge of the electrochemical series to design, construct and test galvanic cells, and evaluate energy resources based on energy efficiency, renewability and environmental impact. Students should be able to apply rate and equilibrium principles to predict how the rate and extent of reactions can be optimised, and explain how electrolysis is involved in the production of chemicals and in the recharging of batteries.

### **CHEMISTRY 4- HOW ARE ORGANIC COMPOUNDS CATEGORISED, ANALYSED AND USED?**

**Unit Statement** - The carbon atom has unique characteristics that explain the diversity and number of organic compounds that not only constitute living tissues but are also found in the fuels, foods, medicines and many of the materials we use in everyday life. In this unit students investigate the structural features, bonding, typical reactions and uses of the major families of organic compounds including those found in food.

Students study the ways in which organic structures are represented and named. They process data from instrumental analyses of organic compounds to confirm or deduce organic structures, and perform volumetric analyses to determine the concentrations of organic chemicals in mixtures. Students consider the nature of the reactions involved to predict the products of reaction pathways and to design pathways to produce particular compounds from given starting materials.

Students investigate key food molecules through an exploration of their chemical structures, the hydrolytic reactions in which they are broken down and the condensation reactions in which they are rebuilt to form new molecules. In this context the role of enzymes and coenzymes in facilitating chemical reactions is explored. Students use calorimetry as an investigative tool to determine the energy released in the combustion of foods.

**Outcomes** - On completion of this unit students should be able to compare the general structures and reactions of the major organic families of compounds, deduce structures of organic compounds using instrumental analysis data, and design reaction pathways for the synthesis of organic molecules. Students should be able to distinguish between the chemical structures of key food molecules, analyse the chemical reactions involved in the metabolism of the major components of food including the role of enzymes, and calculate the energy content of food using calorimetry.

Students should also be able to design and undertake a practical investigation related to energy and/or food, and present methodologies, findings and conclusions in a scientific poster.

## COMPUTING 1

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**Unit Statement** - In this unit students focus on how data, information and networked digital systems can be used to meet a range of users' current and future needs. In Area of Study 1 students collect primary data when investigating an issue, practice or event and create a digital solution that graphically presents the findings of the investigation. In Area of Study 2 students examine the technical underpinnings of wireless and mobile networks, and security controls to protect stored and transmitted data, to design a network solution that meets an identified need or opportunity.

They predict the impact on users if the network solution were implemented. In Area of Study 3 students acquire and apply their knowledge of information architecture and user interfaces, together with web authoring skills, when creating a website to present different viewpoints on a contemporary issue.

**Outcomes** - On completion of this unit students should be able to acquire, secure and interpret data, and design and develop a graphic solution that communicates the findings of an investigation. Students should also be able to design a network with wireless capability that meets an identified need or opportunity, explain its configuration and predict risks and benefits for intended users. Students will design and develop a website collaboratively with others that presents an analysis of a contemporary issue and the team's point of view on the issue.

**Extra Requirement** – Textbook, Levy

## COMPUTING 2

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**Unit Statement** - In this unit students focus on data and how the application of computational, design and systems thinking skills support the creation of solutions that automate the processing of data. In Area of Study 1 students develop their computational thinking skills when using a programming or scripting language to create solutions. They engage in the design and development stages of the problem-solving methodology. In Area of Study 2 students develop a sound understanding of data and how a range of software tools can be used to extract data from large repositories and manipulate it to create visualisations that are clear, usable and attractive, and reduce the complexity of data. In Area of Study 3 students apply all stages of the problem-solving methodology to create a solution using database management software and explain how they are personally affected by their interactions with a database system.

**Outcomes** - On completion of this unit the student should be able to design working modules in response to solution requirements, and use a programming or scripting language to develop the modules. Students should be able to apply the problem-solving methodology and use appropriate software tools to extract relevant data and create a data visualisation that meets a specified user's needs and should be able to apply the problem-solving methodology to create a solution using database management software, and explain the personal benefits and risks of interacting with a database.

## COMPUTING 3 - INFORMATICS

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**Unit Statement** - In Informatics Units 3 and 4, students focus on data, information and information systems. In Unit 3 students consider data and how it is acquired, managed, manipulated and interpreted to meet a range of needs. In Area of Study 1 students investigate the way organisations acquire data using interactive online solutions, such as websites and applications (apps), and consider how users interact with these solutions when conducting online transactions. They examine how relational database management systems (RDBMS) store and manipulate data typically acquired this way. Students use software to create user flow diagrams that depict how users interact with online solutions, and acquire and apply knowledge and skills in the use of an RDBMS to create a solution.

Students develop an understanding of the power and risks of using complex data as a basis for decision making.

In Area of Study 2 students complete the first part of a project. They frame a hypothesis and then select, acquire and organise data from multiple data sets to confirm or refute this hypothesis. This data is manipulated using tools such as spreadsheets or databases to help analyse and interpret it so that students can form a conclusion regarding their hypothesis. Students take an organised approach to problem solving by preparing project plans and monitoring the progress of the project. The second part of the project is completed in Unit 4.

**Outcomes** - On completion of this unit the student should be able to design a solution, develop it using a relational database management system, and diagrammatically represent how users interact with an online solution when supplying data for a transaction. The student should also be able to use a range of appropriate techniques and processes to acquire, prepare, manipulate and interpret complex data to confirm or refute a hypothesis, and formulate a project plan to manage progress.

## COMPUTING 4 - INFORMATICS

**Unit Statement** - In this unit students focus on strategies and techniques for manipulating, managing and securing data and information to meet a range of needs. In Area of Study 1 students draw on the analysis and conclusion of their hypothesis determined in Unit 3, Outcome 2, and then design, develop and evaluate a multimodal, online solution that effectively communicates the conclusion and findings. The evaluation focuses on the effectiveness of the solution in communicating the conclusion and the reasonableness of the findings. Students use their project plan to monitor their progress and assess the effectiveness of their plan and adjustments in managing the project.

In Area of Study 2, students explore how different organisations manage the storage and disposal of data and information to minimise threats to the integrity and security of data and information and to optimise the handling of information.

**Outcomes** - On completion of this unit the student should be able to design, develop and evaluate a multimodal online solution that confirms or refutes a hypothesis, and assess the effectiveness of the project plan in managing progress. The student should also be able to compare and contrast the effectiveness of information management strategies used by two organisations to manage the storage and disposal of data and information, and recommend improvements to their current practices.

## VET INFORMATION AND COMMUNICATIONS TECHNOLOGY

**Unit Statement** – the VCE VET Information and Technology program aims to provide participants with the knowledge and skills to achieve competencies that will enhance their employment prospects in the information and communications technology or related industries and enable participants to gain a recognised credential and to make an informed choice of vocation or career path.

## DRAMA 1 - DRAMATIC STORYTELLING

**Unit Statement** - This unit examines storytelling through the creation of solo and ensemble performances. Students will create and present characters and portray them in both naturalistic and non- naturalistic performance styles. This unit also involves students in analysing their own performance work and professional practitioners. Students learn about stagecraft, theatrical conventions and performance styles from a range of social and cultural contexts.

**Content Outline** - Devising solo and ensemble performances based on varied stimuli; Documenting play making and development techniques; Presenting solo and ensemble performances, based on work devised in Outcome1; Verbal and written analysis of the development and presentation of performance work devised in Outcome 1 and performed in Outcome 2; Observation and analysis of work performed by professional practitioners.

**Outcomes** - Use play making techniques to devise solo and ensemble performance, based on experience or stories. Describe the dramatic processes used to shape and develop those performances. Use expressive skills, theatrical conventions and stagecraft to perform stories and characters to an audience. Analyse the development and performance of work created and presented in Outcomes 1 & 2. Identify and evaluate the use of performance styles and describe the use of theatrical conventions, stagecraft and dramatic elements as well as analyse the portrayal of stories and characters in performance.

## DRAMA 2 - CREATING AUSTRALIAN DRAMA

**Unit Statement** - This unit focuses on the creation, performance and analysis of solo and ensemble works derived from an Australian context. Students analyse their own work as well as that observed in a professional Australian theatre work.

**Content Outline** - Devising solo and ensemble works based in a contemporary or historical Australian context. Documenting play making and development techniques used to shape and develop the performance work. Presenting performance work devised in Outcome 1 and presented in Outcome 2. Observation and analysis of an Australian professionally presented performance work.

**Outcomes** - Demonstrate the use of play making techniques to devise and rehearse solo or ensemble Australian drama works. Demonstrate the effective use and manipulation of dramatic elements, theatrical conventions and stagecraft in the presentation of performance work to an audience. Analyse and evaluate the creation, development and performance of characters as well as the use and manipulation of theatrical conventions, stagecraft and dramatic elements in their own devised and performed works from Outcomes 1 and 2. Identify the use of theatrical styles and conventions, describe performance styles and analyse and evaluate the dramatic elements of a professionally performed piece of Australian theatre.

## DRAMA 3 - ENSEMBLE PERFORMANCE

**Unit Statement** - This unit focuses on non-naturalistic drama from a diverse range of performance traditions. Ensemble performance is created through collaboration, drawing on knowledge of non-naturalistic performance styles and their associated theatrical conventions. Students use and manipulate dramatic elements, expressive skills and stagecraft elements. Students document, analyse and evaluate the stages of creation, development and presentation of the ensemble performance.

**Content Outline** - Non-naturalistic styles, conventions and practitioners. Collaborative play making techniques and processes. Character development. Analysis of ensemble performance. The language of Drama. Analysis and evaluation of professional non-naturalistic performance.

**Outcomes** - Develop and present characters within a non-naturalistic ensemble performance. Analyse play making techniques used to construct and present the ensemble work created for Outcome 1. Observe, analyse and evaluate a non-naturalistic performance selected from the VCAA prescribed playlist.

## DRAMA 4 – SOLO PERFORMANCE

**Unit Statement** - In this unit, students create and develop characters within solo performance. Both short and extended performances are required and students analyse the construction processes and the performances involved. Students will respond to stimulus material and prescribed structures in the development of their solos. Students complete an extended solo performance exam as well as a written exam which relates to work undertaken in Units 3 and 4.

**Content Outline** - Processes used to create and present a short solo performance. Documentation of processes involved in creating a short solo. Creating, developing and performing an extended solo performance chosen from a VCAA prescribed structure. Description, analysis and evaluation of the creation, development and performance of the extended solo. The language of Drama.

**Outcomes** - Create and present a short solo performance. Analyse and evaluate the processes used in the creation and presentation of the short solo. Create, develop and perform an extended solo in response to a prescribed structure. Describe, analyse and evaluate the creation, development and presentation of the extended solo.

## ENGLISH 1

**Unit Statement** - In this unit, students read and respond to texts analytically and creatively. They analyse arguments and the use of persuasive language in texts and create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts.

**Outcomes** - On completion of this unit the student should be able to produce analytical and creative responses to texts and be able to analyse how argument and persuasive language can be used to position audiences, and create their own texts intended to position audiences.

## ENGLISH 2

**Unit Statement** - In this unit students compare the presentation of ideas, issues and themes in texts. They analyse arguments presented and the use of persuasive language in texts and create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts.

**Outcomes** - On completion of this unit the student should be able to compare the presentation of ideas, issues and themes in two texts and identify and analyse how argument and persuasive language are used in text/s that attempt to influence an audience, and create a text which presents a point of view..

## ENGLISH 3

**Unit Statement** - In this area of study students identify, discuss and analyse how the features of selected texts create meaning and how they influence interpretation. In identifying and analysing explicit and implied ideas and values in texts, students examine the ways in which readers are invited to respond to texts. They develop and justify their own detailed interpretations of texts.

Students prepare sustained analytical interpretations of selected texts, discussing how features of the texts create meaning and using textual evidence to support their responses. They use planning and drafting to test and clarify their ideas, and editing to produce clear and coherent expression. They craft their writing for convincing and effective presentation. Students present sustained creative responses to selected texts, demonstrating their understanding of the world of the texts and how texts construct meaning. In developing a creative response they explore issues of purpose and audience and make key choices about structure, conventions and language. They develop a credible and effective voice and style and use the chosen features of the selected text, for example characters, narrative or dialogue, to offer an interpretation of the selected text. They produce and share drafts, practising the skills of revision, editing and refining for stylistic and imaginative effect.

**Outcomes** - On completion of this unit the student should be able to produce an analytical interpretation of a selected text, and a creative response to a different selected text.in the Australian media, and to construct, orally or in writing, a sustained and reasoned point of view on the selected issue. Students should be able to analyse and compare the use of argument and persuasive language in texts that present a point of view on an issue currently debated in the media.

## ENGLISH 4

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**Unit Statement** - In this unit students compare the presentation of ideas, issues and themes in texts.

They create an oral presentation intended to position audiences about an issue currently debated in the media.

**Outcomes** - On completion of this unit the student should be able to produce a detailed comparison which analyses how two selected texts present ideas, issues and themes. Students should be able to construct a sustained and reasoned point of view on an issue currently debated in the media.

## ENGLISH FOUNDATION 1

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**Unit Statement** - The study of English encourages the development of literate individuals. The Foundation English course is designed for students who may require a more vocationally orientated approach to English or may be aiming to enter the work-force upon completing their post-compulsory studies. It is suited to students who need additional time and assistance to strengthen and refine their literary skills to support VCE or VCAL studies. Foundation English draws on and strengthens skills gained and the knowledge students have acquired about texts and language in the English domain. It integrates speaking, listening, reading, viewing and writing.

**Content Outline** Essentials of English: Reading and Writing

**Outcomes** - Write summaries of short texts; Write for a specific purpose for a workplace, personal or community audience.

## ENGLISH FOUNDATION 2

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**Unit Statement** - The study of English encourages the development of literate individuals. The Foundation English course is designed for students who may require a more vocationally orientated approach to English or may be aiming to enter the work-force upon completing their post-compulsory studies. It is suited to students who need additional time and assistance to strengthen and refine their literary skills to support VCE or VCAL studies. Foundation English draws on and strengthens skills gained and the knowledge students have acquired about texts and language in the English domain in VELs. It integrates speaking, listening, reading, viewing and writing.

**Content Outline** - Essentials of English: Reading and Writing

**Outcomes** - Discuss key aspects of a short literary, everyday or media text, in a written response. Write for a range of purposes for workplace, personal or community audiences.

## FOOD & TECHNOLOGY 1 - FOOD ORIGINS

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**Unit Statement** - This unit focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world. In Area of Study 1 students explore how humanity has historically sourced its food, examining the general progression from hunter-gatherer to rural-based agriculture, to today's urban living and global trade in food. Students consider the origins and significance of food through inquiry into particular food-producing regions of the world.

In Area of Study 2 students focus on Australia. They look at Australian indigenous food prior to European settlement and how food patterns have changed since, particularly through the influence of food production, processing and manufacturing industries and immigration. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of an Australian cuisine.

They consider the influence of technology and globalisation on food patterns. Throughout this unit students complete topical and contemporary practical tasks to enhance, demonstrate and share their learning with others.

**Outcomes**

On completion of this unit students should be able to identify and explain major factors in the development of a globalised food supply, and demonstrate adaptations of selected food from earlier cuisines through practical activities. Student should be able to describe patterns of change in Australia's food industries and cultures, and use foods indigenous to Australia and those introduced through migration in the preparation of food products.

## FOOD & TECHNOLOGY 2 – FOOD MAKERS

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**Unit Statement** - In this unit students investigate food systems in contemporary Australia. Area of Study 1 focuses on commercial food production industries, while Area of Study 2 looks at food production in small-scale domestic settings, as both a comparison and complement to commercial production. Students gain insight into the significance of food industries to the Australian economy and investigate the capacity of industry to provide safe, high-quality food that meets the needs of consumers.

Students use practical skills and knowledge to produce foods and consider a range of evaluation measures to compare their foods to commercial products. They consider the effective provision and preparation of food in the home, and analyse the benefits and challenges of developing and using practical food skills in daily life. In demonstrating their

practical skills, students design new food products and adapt recipes to suit particular needs and circumstances. They consider the possible extension of their role as small-scale food producers by exploring potential entrepreneurial opportunities

**Outcomes** - On completion of this unit the student should be able to describe Australia's major food industries, analyse relationships between food suppliers and consumers, discuss measures in place to ensure a safe food supply and design a brief and a food product that demonstrates the application of commercial principles. Student should be able to compare and evaluate similar foods prepared in different settings, explain the influences on effective food provision and preparation in the home, and design and create a food product that illustrates potential adaptation in a commercial context.

## **FOOD & TECHNOLOGY 3 – FOOD IN DAILY LIFE**

**Unit Statement** - This unit investigates the many roles and everyday influences of food. Area of Study 1 explores the science of food: our physical need for it and how it nourishes and sometimes harms our bodies. Students investigate the physiology of eating and appreciating food, and the microbiology of digestion. They also investigate the functional properties of food and the changes that occur during food preparation and cooking. They analyse the scientific rationale behind the Australian Dietary Guidelines and the Australian Guide to Healthy Eating and develop their understanding of diverse nutrient requirements.

Area of Study 2 focuses on influences on food choice: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments. Students inquire into the role of food in shaping and expressing identity and connectedness and the ways in which food information can be filtered and manipulated. They investigate behavioural principles that assist in the establishment of lifelong, healthy dietary patterns.

The practical component of this unit enables students to understand food science terminology and to apply specific techniques to the production of everyday food that facilitates the establishment of nutritious and sustainable meal patterns.

**Outcomes** - On completion of this unit the student should be able to explain the processes of eating and digesting food and absorption of macronutrients, explain causes and effects of food allergies, food intolerances and food contamination, analyse food selection models, and apply principles of nutrition and food science in the creation of food products. Students should be able to explain and analyse factors affecting food access and choice, analyse the influences that shape an individual's food values, beliefs and behaviours, and apply practical skills to create a range of healthy meals for children and families.

## **FOOD & TECHNOLOGY 4 – FOOD ISSUES, CHALLENGES AND FUTURES**

**Unit Statement** - In this unit students examine debates about global and Australian food systems. Area of Study 1 focuses on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land.

Students research a selected topic, seeking clarity on current situations and points of view, considering solutions and analysing work undertaken to solve problems and support sustainable futures.

Area of Study 2 focuses on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. Students consider how to assess information and draw evidence-based conclusions. They apply this methodology to navigate contemporary food fads, trends and diets. They practise and improve their food selection skills by interpreting food labels and analysing the marketing terms used on food packaging.

The practical component of this unit provides students with opportunities to apply their responses to environmental and ethical food issues, and to extend their food production repertoire reflecting the Australian Dietary Guidelines and the Australian Guide to Healthy Eating.

**Outcomes** - On completion of this unit the student should be able to explain a range of food systems issues, respond to a selected debate with analysis of problems and proposals for future solutions, apply questions of sustainability and ethics to the selected food issue and develop and create a food repertoire that reflects personal food values and goals. Students should be able to explain a variety of food information contexts, analyse the formation of food beliefs, evaluate a selected food trend, fad or diet and create food products that meet the Australian Dietary Guidelines.

## **GEOGRAPHY 1 – HAZARDS AND DISASTERS**

**Unit Statement** - In this unit students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them by people.

Hazards represent the potential to cause harm to people and or the environment whereas disasters are judgments about the impacts of hazard events. Hazards include a wide range of situations including those within local areas, such as fast moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease. Students examine the processes involved with hazards and hazard events, including their causes and impacts, human responses to hazard events and interconnections between human activities and natural phenomena. This unit investigates how people have responded to specific types of hazards, including attempts to reduce vulnerability to, and the impact of, hazard events.

**Outcomes** – The student should be able to analyse, describe and explain the nature of hazards and impacts of hazard events at a range of scales. They should also be able to analyse and explain the nature, purpose and effectiveness of a range of responses to selected hazards and disasters.

## **GEOGRAPHY 2 – TOURISM**

**Unit Statement** - In this unit students investigate the characteristics of tourism, with particular emphasis on where it has developed, its various forms, how it has changed and continues to change and its impacts on people, places and environments. They select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. The study of tourism at local, regional and global scales emphasises the interconnection within and between places. For example, the interconnections of climate, landforms and culture help determine the characteristics of a place that can prove attractive to tourists. There is an interconnection between places tourists originate from and their destinations through the development of communication and transport infrastructure, employment, together with cultural preservation and acculturation. The growth of tourism at all scales requires careful management to ensure environmentally sustainable and economically viable tourism. Students undertake fieldwork in this unit and report on fieldwork using the structure provided

**Outcomes** – The student should be able to analyse, describe and explain the nature of tourism at a range of scales. They should also be able to analyse and explain the impacts of tourism on people, places and environments and evaluate the effectiveness of strategies for managing tourism.

## **GEOGRAPHY 3 – CHANGING THE LAND**

**Unit Statement** - This unit focuses on two investigations of geographical change: change to land cover and change to land use. Land cover includes biomes such as forest, grassland, tundra and wetlands, as well as land covered by ice and water. Land cover is the natural state of the biophysical environment developed over time as a result of the interconnection between climate, soils, landforms and flora and fauna and, increasingly, interconnections with human activity. Natural land cover has been altered by many processes such as geomorphological events, plant succession and climate change. People have modified land cover to produce a range of land uses to satisfy needs such as housing, resource provision, communication, recreation and so on. Students investigate the distribution and causes of these three processes. They select one location for each of the three processes to develop a greater understanding of the changes to land cover produced by these processes, the impacts of these changes and responses to these changes at different scales. At a local scale students investigate land use change using appropriate fieldwork techniques and secondary sources. They investigate the scale of change, the reasons for change and the impacts of change. Students undertake fieldwork and produce a fieldwork report using the structure provided.

**Outcomes** - On completion of this unit the student should be able to analyse, describe and explain land use change and assess its impacts. They should also be able to analyse, describe and explain processes that result in changes to land cover and discuss the impacts and responses resulting from these changes.

## **GEOGRAPHY 4 – HUMAN POPULATION – TRENDS AND ISSUES**

**Unit Statement** - In this unit students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world. In this unit, students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. They examine the dynamics of populations and their economic, social, political and environmental impacts on people and places. The growth of the world's population from 2.5 billion in 1950 to over 7 billion since 2010 has been on a scale without parallel in human history. Much of the current growth is occurring within developing countries while the populations in many developed countries are either growing slowly or are declining.

Populations change by growth and decline in fertility and mortality, and by people moving to different places.

The Demographic Transition Model and population structure diagrams provide frameworks for investigating the key dynamics of population.

Population movements such as voluntary and forced movements over long or short terms add further complexity to population structures and to economic, social, political and environmental conditions. Many factors influence population change, including the impact of government policies, economic conditions, wars and revolution, political boundary changes and hazard events.

**Outcomes** - On completion of this unit the student should be able to analyse, describe and explain population dynamics on a global scale. They should also be able to analyse, describe and explain the nature of significant population issues and challenges in selected locations and evaluate responses.

## HEALTH AND HUMAN DEVELOPMENT 1 – THE HEALTH AND DEVELOPMENT OF AUSTRALIA’S YOUTH

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**Unit Statement** - This unit focuses on the development of an understanding of concepts of health and individual human development. In investigating these concepts, students explore the interrelationships that exist with and between them. Different methods for measuring health status are also studied. Students investigate one health issue in detail and analyse personal, community and government strategies or programs that affect your health and individual development.

**Content Outline** - Understanding health and development – focuses on the concepts of health and human development and the interrelationship that exists within and between them. Youth health and development – focuses on the physical, social and emotional changes that occur during this period, and the determinants of health including nutrition, which influence youth health and development. Health issues for Australia’s youth – focuses on a range of health issues for youth. Students investigate in detail one health issue and its impact on all dimensions of health and development. They develop an understanding of the related risk and protective factors relating to their issue.

**Outcomes** - Describe the dimensions of, and the interrelationship within and between, health and individual development. Describe and explain the factors that impact on the health and individual human development of Australia’s youth. Outline health issues relevant to Australia’s youth and, in relation to a specific health issue, analyse strategies or programs that have an impact on youth health and development.

## HEALTH AND HUMAN DEVELOPMENT 2 – INDIVIDUAL HUMAN DEVELOPMENT AND HEALTH ISSUES

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**Unit Statement** - This unit focuses on the lifespan stages of childhood and adulthood. The impact that health and development during childhood has on the rest of the lifespan and the diversity of health and individual development during adulthood is investigated. Students consider a range of factors that impact on the Australian health and examine one in depth.

**Content Outline** - The health and development of Australia’s children – focuses on the period from conception to approximately twelve years. Students explore the physical development and social, emotional and intellectual changes that occur. They also investigate factors that influence child health and development. Adult health and development – focuses on changes that occur during adulthood and the various determinants that impact on their health status. Health Issues – focuses on factors that have an impact on Australia’s health system.

**Outcomes** - Describe and explain the factors that affect the health and individual human development of Australia’s children. Describe and explain the factors that affect the health of individual human development of Australia’s adults. Analyse a selected health issue facing Australian’s health system, and evaluate community and/or government actions that may address this issue.

## HEALTH AND HUMAN DEVELOPMENT 3 – AUSTRALIA’S HEALTH

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**Unit Statement** - This unit focuses on the health status of Australians and the different ways in which it can be measured. The National Health Priority Areas that aim to address the main causes of burden of disease of Australians are studied. Many factors influence the health status of Australians and inequalities exist between different groups. Government and non-government organisations and their initiatives that aim to promote health and development are investigated along with the Australian health system including the funding of Medicare and Private health insurance.

**Content Outline** - Understanding Australia’s Health - focuses on developing an understanding of the health of Australians and the development of the National Health Priority Areas and their relationship to burden of disease in Australia. Promoting health in Australia – focuses on different health models and health promotion in Australia and the role of Government and non-government agencies.

**Outcomes** - Compare the health status of Australia’s population with other developed countries, explain variations in health status of population groups in Australia and discuss the role of the National Health Priority Areas in improving Australia’s health status. Discuss and analyse approaches to health and health promotion, and describe Australia’s health system and the different roles of government and non-government agencies.

## HEALTH AND HUMAN DEVELOPMENT 4 – GLOBAL HEALTH AND DEVELOPMENT

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**Unit Statement** - This unit takes a global perspective on achieving sustainable improvements in health and human development. There is an analysis of the impact of a range of environmental factors that contribute to variations in health and developmental outcomes between and within developed and developing countries. Students study the United Nations and World Health Organisation strategies that aim at reducing the global burdens of disease through the achievement of the Millennium Developmental Goals. The Australian aid agency AusAID, and non-governmental agencies roles in promoting global sustainable human development are investigated.

**Content Outline** - Introducing global health and human development – focuses on developing an understanding of the similarities and differences in the health status of people living in developing countries and Australia and the role of the United Nations Developmental Goals in achieving sustainable improvements in health. Promoting global health and

human development – focus on international agencies including the UN and WHO, and the governments and non-government strategies designed to promote health globally.

**Outcomes** - Analyse factors contributing to variations in health status between Australia and developing countries, evaluate progress towards the United Nation's Millennium Development Goals and describe the interrelationships between health, human development and sustainability. Describe and evaluate programs implemented by international and Australian government and non-government organisations in promoting health, human development and sustainability.

## HISTORY 1- TWENTIETH CENTURY HISTORY 1918 –1939

**Unit Statement** - In Unit 1 students explore the nature of political, social and cultural change in the period between the world wars.

World War One is regarded by many as marking the beginning of twentieth century history since it represented such a complete departure from the past and heralded changes that were to have an impact for decades to come.

The post-war treaties ushered in a period where the world was, to a large degree, reshaped with new borders, movements, ideologies and power structures. These changes affected developments in Europe, the USA, Asia, Africa and the Middle East. Economic instability caused by the Great Depression also contributed to the development of political movements. Despite ideals about future peace, reflected in the establishment of the League of Nations, the world was again overtaken by war in 1939.

The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. In Germany, the persecution of the Jewish people became intensified. In the USSR, millions of people were forced to work in state-owned factories and farms and had limited personal freedom. Japan became increasingly militarised and anti-western. In the USA, the consumerism and material progress of the 1920s was tempered by the Great Crash of 1929. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political, economic and social changes.

**Outcomes** - On completion of this unit the student should be able to explain the consequences of the peace treaties which ended World War One, the impact of ideologies on nations and the events that led to World War Two. They should be able to explain patterns of social life and cultural change in one or more contexts, and analyse the factors which influenced changes to social life and culture, in the inter-war years.

## HISTORY 2- TWENTIETH CENTURY HISTORY 1945 –2000

**Unit Statement** - In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century.

The establishment of the United Nations in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948, was the first global expression of human rights.

Despite internationalist moves, the second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War.

This period also saw challenge and change to the established order in many countries. The continuation of moves towards decolonisation led to independence movements in former colonies in Africa, the Middle East, Asia and the Pacific. New countries were created and independence was achieved through both military and diplomatic means. Old conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

**Outcomes** - On completion of this unit the student should be able to explain the ideological divisions in the post-war period and analyse the nature, development and impact of the Cold War on nations and people, in relation to one or more particular conflicts in the period. They should also be able to explain the causes and nature of challenge and change in relation to two selected contexts in the second half of the twentieth century and analyse the consequences for nations and people.

## AUSTRALIAN HISTORY 3 - TRANSFORMATIONS: COLONIAL SOCIETY TO NATION

**Unit Statement** - In this unit students explore the transformation of the Port Phillip District (later Victoria) from the 1830s through to the end of the tumultuous gold rush decade in 1860. They consider the dramatic changes introduced as the British colonisers swiftly established themselves, taking possession of the land and then its newly discovered mineral riches.

Students examine transformations in the way of life of the Aboriginal peoples and to the environment as the European society consolidated itself. They also consider how new visions for the future created by the gold rush and the Eureka rebellion further transformed the new colony.

Students explore the type of society Australians attempted to create in the early years of the newly federated nation. Much of the legislation debated and passed by the Commonwealth Parliament was relatively advanced and Australia

was seen as a social laboratory exploring new forms of rights and benefits for its citizens. Students evaluate the effect that Australian involvement in World War One had on the country's egalitarian and socially progressive aspirations.

**Outcomes** - On completion of this unit the student should be able to analyse the nature of change in the Port Phillip District/ Victoria in the period 1834–1860. Students should also be able to analyse the visions and actions that shaped the new nation from 1890 to 1920, and the changes and continuities to these visions that resulted from participation in World War One.

## AUSTRALIAN HISTORY 4 - AUSTRALIAN HISTORY

**Unit Statement** - In this unit students investigate the continuing development of the nation in the early part of the twentieth century and the dramatic changes that occurred in the latter part of the century. After World War One the process of nation building was renewed. However, world events soon intruded again into the lives of all Australians. The economic crisis of the 1930s followed by another world war redirected the nation's priorities for a time as it struggled to regain economic stability and defeat its military enemies. The experience of both the Depression and World War

Two gave rise to renewed thinking by Australians about how to achieve the type of society envisaged at the time of Federation. In Area of Study 1 students focus on one of the crises faced by the nation: The Great Depression 1929 –1939 or World War Two 1939 –1945.

In Area of Study 2 students explore social, economic and political changes in the latter part of the twentieth century that collectively challenged and/or overturned much of Australia's earlier carefully constructed social and economic fabric. Students examine two changes drawn from: Australia's involvement in the Vietnam War, Aboriginal land rights, equality for women, new patterns of immigration and/or a global economy.

**Outcomes** - On completion of this unit the student should be able to analyse the social, economic and political consequences of a crisis on the nation. Students should also be able to analyse and evaluate two key social, economic and political changes in late twentieth century Australia.

## HISTORY – REVOLUTIONS 3 & 4

**Unit Statement** - In Units 3 and 4 Revolutions students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point which brings about the collapse and destruction of an existing political order resulting in a pervasive change to society. Revolutions are caused by the interplay of ideas, events, individuals and popular movements. Their consequences have a profound effect on the political and social structures of the post-revolutionary society. Revolution is a dramatically accelerated process whereby the new order attempts to create political and social change and transformation based on a new ideology. Progress in a post-revolutionary society is not guaranteed or inevitable. Post-revolutionary regimes are often threatened internally by civil war and externally by foreign threats. These challenges can result in a compromise of revolutionary ideals and extreme measures of violence, oppression and terror. In these units students develop an understanding of the complexity and multiplicity of causes and consequences in the revolutionary narrative. They construct an argument about the past using primary sources as evidence and evaluate the extent to which the revolution brought change to the lives of people. They consider how perspectives of the revolution give an insight into the continuity and change experienced by those who lived through dramatic revolutionary moments. Students evaluate historical interpretations about the causes and consequences of revolution and the effects of change instigated by the new order.

The periods considered in this course are the French Revolution of 1789 and the Russian Revolution of October 1917.

**Outcome** - On completion of this unit the student should be able to analyse the causes of revolution, and evaluate the contribution of significant ideas, events, individuals and popular movements. They should also be able to analyse the consequences of revolution and evaluate the extent of change brought to society.

## INDONESIAN 1

**Unit Statement** - This unit is designed to enable students to use Indonesian to communicate with others; understand and appreciate the cultural contexts in which Indonesian is used; understand their own culture through the study of other cultures; understand language as a system; make connections between Indonesian and English and apply Indonesian to work, further study, training or leisure. Over the course of the unit four topics from the list below will be covered.

**Content Outline** - Liburan (Holidays), Pariwisata di Bali (tourism in Bali), Remaja (teenage life), Kesehatan (Health), Pengaruh barat (western influences), Agama (Religion), Sejarah Indonesia (history), Desa dan kota (village and city life), Karir: (career), Hubungan Indonesia Australia (Indonesian Australian relations), Lingkungan (environment), Upacara dan perayaan (ceremonies and celebrations), Liburan dan bertamasya (holidays and sightseeing), Segitiga East Timor, Australia dan Indonesia (The triangle East Timor, Australia and Indonesia)

**Outcomes** - Establish and maintain a spoken or written exchange related to personal areas of experience. Listen to, read and obtain information from written and spoken texts. Produce a personal response to a text focusing on real or imaginary experience.

## INDONESIAN 2

**Unit Statement** - This unit is designed to enable students to use Indonesian to communicate with others; understand and appreciate the cultural contexts in which Indonesian is used; understand their own culture through the study of other cultures; understand language as a system; make connections between Indonesian and English and apply Indonesian to work, further study, training or leisure. Over the course of the unit four topics from the list below will be covered.

**Content Outline** - Liburan (Holidays), Pariwisata di Bali (tourism in Bali), Remaja (teenage life), Kesehatan (Health), Pengaruh barat (western influences), Agama (Religion), Sejarah Indonesia (history), Karir: (career), Desa dan kota (village and city life), Lingkungan (environment), Hubungan Indonesia Australia (Indonesian Australian relations), Upacara dan perayaan (ceremonies and celebrations), Liburan dan bertamasya (holidays and sightseeing)

**Outcomes** - Participate in a spoken or written exchange related to making arrangements and completing transactions. Listen to, read, extract and use information and ideas from spoken and written texts. Give expression to real or imaginary experiences in written or spoken form.

## INDONESIAN 3

**Unit Statement** - This unit is designed to enable students to use Indonesian to communicate with others; understand and appreciate the cultural contexts in which Indonesian is used; understand their own culture through the study of other cultures; understand language as a system; make connections between Indonesian and English and apply Indonesian to work, further study, training or leisure. Over the course of the unit four topics from the list below will be covered.

**Content Outline** - Liburan (Holidays), Pariwisata di Bali (tourism in Bali), Remaja (teenage life), Kesehatan (Health), Pengaruh barat (western influences), Agama (Religion), Sejarah Indonesia (history), Karir: (career), Desa dan kota (village and city life), Lingkungan (environment), Hubungan Indonesia Australia (Indonesian Australian relations), Upacara dan perayaan (ceremonies and celebrations), Liburan dan bertamasya (holidays and sightseeing)

**Outcomes** - Express ideas through the production of original texts; Analyse and use information from spoken texts; Exchange information, opinions and experiences.

## INDONESIAN 4

**Unit Statement** - This unit is designed to enable students to use Indonesian to communicate with others; understand and appreciate the cultural contexts in which Indonesian is used; understand their own culture through the study of other cultures; understand language as a system; make connections between Indonesian and English and apply Indonesian to work, further study, training or leisure. Over the course of the unit four topics from the list below will be covered.

**Content Outline** - Liburan (Holidays), Pariwisata di Bali (tourism in Bali), Remaja (teenage life), Kesehatan (Health), Pengaruh barat (western influences), Agama (Religion), Sejarah Indonesia (history), Karir: (career), Desa dan kota (village and city life), Lingkungan (environment), Hubungan Indonesia Australia (Indonesian Australian relations), Upacara dan perayaan (ceremonies and celebrations), Liburan dan bertamasya (holidays and sightseeing)

**Outcomes** - Analyse and use information from written texts. Respond critically to spoken and written texts which reflect aspects of the language and culture of Indonesian-speaking communities.

## LEGAL STUDIES 1 - CRIMINAL LAW IN ACTION

**Unit Statement** - Students examine the need for laws in society. They investigate the key features of criminal law, how it is enforced and adjudicated and possible outcomes and impacts of crime. Through a consideration of contemporary cases and issues, students learn about different types of crimes and explore rights and responsibilities under criminal law. Students also consider the role of parliament and subordinate authorities in law-making, as well as the impact of the Victorian Charter of Rights and Responsibilities on law enforcement and adjudication in Victoria. Students investigate the processes and procedures followed by courts in hearing and resolving criminal cases. They explore the main features and operations of criminal courts and consider the effectiveness of the criminal justice system in achieving justice.

**Content Outline** - Law in society; Criminal law; The criminal Courtroom

**Outcomes** - Explain the need for effective laws and describe the main sources and types of law in society. Explain the key principles and types of criminal law, apply the key principles to relevant cases, and discuss the impact of criminal activity on the individual and society. Describe the processes for the resolution of criminal cases, and discuss the capacity of these processes to achieve justice.

## LEGAL STUDIES 2 – ISSUES IN CIVIL LAW

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**Unit Statement** - Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil law in society and how it affects them as individuals. The unit also focuses on the resolution of civil disputes through judicial determination and alternative methods in courts, tribunals and independent bodies. Students examine these methods of dispute resolution and evaluate their effectiveness. Individuals can influence a change in the law by taking a case to court. Students focus on cases that have had a broader impact on the legal system and on the rights of individuals. Students develop an appreciation of the role played by such cases and undertake an analysis of relevant legal issues.

**Content Outline** - Civil law; The civil law in action; The law in focus: contract law or human rights

**Outcomes** - Explain the principles of civil law, law-making by courts, and elements of torts, and apply these to relevant cases; Explain and evaluate the processes for the resolution of civil disputes; Explain one or more area/s of civil law, and discuss the legal system's capacity to respond to issues and disputes related to the selected area/s of law; Describe an Australian case illustrating rights issues, and discuss the impact of the case on the legal system and the rights of individuals.

## LEGAL STUDIES 3 – LAW-MAKING

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**Unit Statement** - In this unit students develop an understanding of the institutions that determine our laws, and their law-making powers and processes. They undertake an informed evaluation of the effectiveness of law-making bodies and examine the need for the law to keep up to date with change in society. Students develop an appreciation of the complex nature of law-making by investigating the key features and operation of parliament, and influences on law-making, with a focus on the role of the individual. Central to the investigation of law-making is the role played by the Commonwealth Constitution. Students develop an understanding of the importance of the Constitution in their lives and on society as a whole, and undertake a comparative analysis with another country. They learn of the importance of the role played by the High court of Australia in interpreting and enforcing the Constitution, and ensuring that parliaments do not act outside their areas of power nor infringe protected rights. Students investigate the nature and importance of courts as law-makers and undertake an evaluation of their effectiveness as law-making bodies. They also investigate the relationships that exist between parliaments and courts.

**Content Outline** - Parliament and the citizen; Constitution and the protection of rights; Role of the courts in law-making.

**Outcomes** - Explain the structure and role of parliament, including its processes and effectiveness as a law-making body, describe why legal change is needed, and the means by which such change can be influenced. Explain the role of the Commonwealth Constitution in defining law-making powers within a federal structure, analyse the means by which law-making powers may change, and evaluate the effectiveness of the Commonwealth Constitution in protecting human rights. Describe the role and operation of courts in law-making, evaluate their effectiveness as law-making bodies and discuss their relationship with parliament.

## LEGAL STUDIES 4 – RESOLUTION AND JUSTICE

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**Unit Statement** - The legal system provides mechanisms by which legal disputes of both a criminal and a civil nature can be resolved in a fair and just manner. Dispute resolution bodies such as courts and tribunals employ a range of means and processes that enables the resolution of legal disputes. Students examine the institutions that adjudicate criminal cases and civil disputes. They also investigate methods of dispute resolution that can be used as an alternative to civil litigation. Students investigate the processes and procedures followed in courtrooms and develop an understanding of the adversary system of trial and the jury system, as well as pre-trial and post-trial procedures that operate in the Victorian legal system. Using the elements of an effective legal system, students consider the extent to which court processes and procedures contribute to the effective operation of the legal system. They also consider reforms or changes that could further improve its effective operation. Throughout this unit, students examine current or recent cases to support their learning, and apply legal principles to these illustrative cases.

**Content Outline** - Dispute resolution methods; Court processes and procedures, and engaging in justice.

**Outcomes** - Describe and evaluate the effectiveness of institutions and methods for the determination of criminal cases and the resolution of civil disputes. Explain the processes and procedures for the resolution of criminal cases and civil disputes, and evaluate their operation and application, and evaluate the effectiveness of the legal system.

## LITERATURE 1 APPROACHES TO LITERATURE

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**Unit Statement** - In this unit students focus on the ways in which the interaction between text and reader creates meaning. Students' analyses of the features and conventions of texts help them develop increasingly discriminating responses to a range of literary forms and styles. Students respond critically, creatively and reflectively to the ideas and concerns of texts and gain insights into how texts function as representations of human experience. They develop familiarity with key terms, concepts and practices that equip them for further studies in literature. They develop an awareness of how the views and values that readers hold may influence the reading of a text.

**Outcomes** - On completion of this unit the student should be able to respond to a range of texts and reflect on influences shaping these responses and be able to analyse the ways in which a selected text reflects or comments on the ideas and concerns of individuals and particular groups in society.

## LITERATURE 2 CONTEXT AND CONNECTIONS

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**Unit Statement** - In this unit students explore the ways literary texts connect with each other and with the world. They deepen their examination of the ways their own culture and the cultures represented in texts can influence their interpretations and shape different meanings. Drawing on a range of literary texts, students consider the relationships between authors, audiences and contexts. Ideas, language and structures of different texts from past and present eras and/or cultures are compared and contrasted. Students analyse the similarities and differences across texts and establish connections between them. They engage in close reading of texts and create analytical responses that are evidence-based. By experimenting with textual structures and language features, students understand how imaginative texts are informed by close analysis.

**Outcomes** - On completion of this unit the student should be able to analyse and respond critically and creatively to the ways a text from a past era and/or a different culture reflect or comment on the ideas and concerns of individuals and groups in that context and be able to compare texts considering the dialogic nature of texts and how they influence each other.

## LITERATURE 3 FORM AND TRANSFORMATION

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**Unit Statement** - In this unit students consider how the form of a text affects meaning, and how writers construct their texts. They investigate ways writers adapt and transform texts and how meaning is affected as texts are adapted and transformed. They consider how the perspectives of those adapting texts may inform or influence the adaptations. Students draw on their study of adaptations and transformations to develop creative responses to texts.

Students develop their skills in communicating ideas in both written and oral forms.

**Outcomes** - On completion of this unit the student should be able to analyse the extent to which meaning changes when a text is adapted to a different form. Students should be able to respond creatively to a text and comment on the connections between the text and the response.

## LITERATURE 4 INTERPRETING TEXTS

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**Unit Statement** - In this unit students develop critical and analytic responses to texts. They consider the context of their responses to texts as well as the ideas explored in the texts, the style of the language and points of view. They investigate literary criticism informing both the reading and writing of texts. Students develop an informed and sustained interpretation supported by close textual analysis. For the purposes of this unit, literary criticism is characterised by extended, informed and substantiated views on texts and may include reviews, peer-reviewed articles and transcripts of speeches. Specifically, for Unit 4 Outcome 1, the literary criticism selected must reflect different perspectives, assumptions and ideas about the views and values of the text/s studied.

**Outcomes**- On completion of this unit students should be able to produce an interpretation of a text using different literary perspectives to inform their view. Students should be able to analyse features of texts and develop and justify interpretations of texts.

## FOUNDATION MATHS 1 & 2

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**Unit Statement** - Foundation Mathematics provides for the continuing mathematical development of students entering VCE and who do not necessarily intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. This course is designed to complement General Mathematics and Mathematical Methods. Students completing this course would need to undertake additional targeted mathematical study in order to attempt Further Mathematics Units 3 and 4. In Foundation Mathematics there is a strong emphasis on the use of mathematics in practical contexts encountered in everyday life in the community, at work and at study. The areas of study for Units 1 and 2 of Foundation Mathematics are 'Space, shape and design', 'Patterns and number', 'Data' and 'Measurement'.

All four areas of study are to be completed over the two units. The content should be developed using contexts present in students' other studies, work and personal or other familiar situations.

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

**These units DO NOT lead to any further units of VCE Maths.**

**Outcomes** - On completion of this unit the student should be able to use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve problems based on a range of everyday and real-life contexts. The student should be able to apply mathematical procedures to solve practical problems in both familiar and new contexts, and communicate their results and be able to select and use technology to solve problems in practical contexts.

**Extra Requirement** - Scientific Calculator, Excursion x 2

## SPECIALIST MATHS 1 & 2

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**Unit Statement** - Specialist Mathematics Units 1 and 2 provide a course of study for students who wish to undertake an in-depth study of mathematics, with an emphasis on concepts, skills and processes related to mathematical structure, modelling, problem solving and reasoning. This study has a focus on interest in the discipline of mathematics in its own right and investigation of a broad range of applications, as well as development of a sound background for further studies in mathematics and mathematics related fields.

Mathematical Methods Units 1 and 2 and Specialist Mathematics Units 1 and 2, taken in conjunction, provide a comprehensive preparation for Specialist Mathematics Units 3 and 4. The areas of study for Units 1 and 2 of Specialist Mathematics are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'.

**Outcomes** -. On completion of this unit the student should be able to define and explain key concepts in relation to the topics from the selected areas of study, and apply a range of related mathematical routines and procedures. Students should also be able to apply mathematical processes in non-routine contexts, and analyse and discuss these applications of mathematics in at least three areas of study.

To achieve this outcome the student will draw on knowledge and skills outlined in at least three areas of study.

## GENERAL MATHS 1 & 2

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**Unit Statement-** General Mathematics provides for different combinations of student interests and preparation for study of VCE Mathematics at the Unit 3 and 4 level. The areas of study for General Mathematics Unit 1 and Unit 2 are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic, financial and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

**Outcomes-** On completion of this unit the student should be able to define and explain key concepts in relation to the topics from the selected areas of study, and apply a range of related mathematical routines and procedures.

## MATHEMATICAL METHODS 1

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**Unit Statement** - Mathematical Methods Units 1 and 2 provide an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. They are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units. The focus of Unit 1 is the study of simple algebraic functions, and the areas of study are 'Functions and graphs', 'Algebra', 'Calculus' and 'Probability and statistics'. At the end of Unit 1, students are expected to have covered the content outlined in each area of study, with the exception of 'Algebra' which extends across Units 1 and 2. This content should be presented so that there is a balanced and progressive development of skills and knowledge from each of the four areas of study with connections between and across the areas of study being developed consistently throughout both Units 1 and 2. In undertaking this unit, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs and differentiation with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout the unit as applicable.

**Outcomes** – On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures. They should also be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics. Students should be able to use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

## MATHEMATICAL METHODS 2

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**Unit Statement** - In Unit 2 students focus on the study of simple transcendental functions and the calculus of simple algebraic functions. The areas of study are 'Functions and graphs', 'Algebra', 'Calculus', and 'Probability and statistics'. At the end of Unit 2, students are expected to have covered the material outlined in each area of study. Material from the 'Functions and graphs', 'Algebra', 'Calculus', and 'Probability and statistics' areas of study should be organised so that there is a clear progression of skills and knowledge from Unit 1 to Unit 2 in each area of study. In undertaking this unit, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation and anti-differentiation with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout the unit as applicable.

**Outcomes** – On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures. Students should also be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics. Students should be able to select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

## MATHEMATICAL METHODS 3 & 4

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**Unit Statement** - Mathematical Methods Units 3 and 4 extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Units 3 and 4 consist of the areas of study 'Functions and graphs', 'Calculus', 'Algebra' and 'Probability and statistics', which must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. Assumed knowledge and skills for Mathematical Methods Units 3 and 4 are contained in Mathematical Methods Units 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and skills for the outcomes of Mathematical Methods Units 3 and 4.

For Unit 3 a selection of content would typically include the areas of study 'Functions and graphs' and 'Algebra', and applications of derivatives and differentiation, and identifying and analysing key features of the functions and their graphs from the 'Calculus' area of study. For Unit 4, this selection would typically consist of remaining content from the areas of study: 'Functions and graphs', 'Calculus' and 'Algebra', and the study of random variables and discrete and continuous probability distributions and the distribution of sample proportions. For Unit 4, the content from the 'Calculus' area of study would be likely to include the treatment of anti-differentiation, integration, the relation between integration and the area of regions specified by lines or curves described by the rules of functions, and simple applications of this content.

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation, anti-differentiation, integration and inference with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

**Outcomes** – On completion of each unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures. Students should also be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics. Students should be able to select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

## FURTHER MATHS 3 & 4

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**Unit Statement** - Further Mathematics consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. The Core comprises 'Data analysis' and 'Recursion and financial modelling'. The Applications comprises two modules to be completed in their entirety, from a selection of four possible modules: 'Matrices', 'Networks and decision mathematics', 'Geometry and measurement' and 'Graphs and relations'. 'Data analysis' comprises 40 per cent of the content to be covered, 'Recursion and financial modelling' comprises 20 per cent of the content to be covered, and each selected module comprises 20 per cent of the content to be covered. Assumed knowledge and skills for the Core are contained in the General Mathematics Units 1 and 2 topics: 'Computation and practical arithmetic', 'Investigating and comparing data distributions', 'Investigating relationships between two numerical variables', 'Linear graphs and modelling', 'Linear relations and equations', and 'Number patterns and recursion'. For each module there are related topics in General Mathematics Units 1 and 2.

**Outcomes** - On completion of this unit the student should be able to define and explain key concepts and apply related mathematical techniques and models in routine contexts. Students should also be able to select and apply the mathematical concepts, models and techniques in a range of contexts of increasing complexity. Students should be able to select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

## SPECIALIST MATHEMATICS 3 & 4

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**Unit Statement** - Specialist Mathematics Units 3 and 4 consist of the areas of study: 'Functions and graphs', 'Algebra', 'Calculus', 'Vectors', 'Mechanics' and 'Probability and statistics'. The development of course content should highlight mathematical structure, reasoning and applications across a range of modelling contexts with an appropriate selection of content for each of Unit 3 and Unit 4. Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and skills from Mathematical

Methods Units 1 and 2, the key knowledge and skills from Specialist Mathematics Units 1 and 2 topics 'Number systems and recursion' and 'Geometry in the plane and proof', and concurrent or previous study of Mathematical Methods Units 3 and 4. Together these cover the assumed knowledge and skills for Specialist Mathematics, which are drawn on as applicable in the development of content from the areas of study and key knowledge and skills for the outcomes. In Unit 3 a study of Specialist Mathematics would typically include content from 'Functions and graphs' and a selection of material from the 'Algebra', 'Calculus' and 'Vectors' areas of study. In Unit 4 this selection would typically consist of the remaining content from the 'Algebra', 'Calculus', and 'Vectors' areas of study and the content from the 'Mechanics' and 'Probability and statistics' areas of study.

**Outcomes** - On the completion of each unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures. Students should also be able to apply mathematical processes, with an emphasis on general cases, in non-routine contexts, and analyse and discuss these applications of mathematics. Students should be able to select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

## MEDIA 1 - REPRESENTATION AND TECHNOLOGIES OF REPRESENTATION

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**Unit Statement** - In this unit students develop an understanding of the relationship between the media, technology and the representations present in media forms. They study the relationships between media technologies, audiences and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, the role audiences play in constructing meaning from media representations, and the creative and cultural impact of new media technologies.

**Content Outlines** - This area of study focuses on an analysis of media representations and how such representations depict, for example, events, people, organisations and ideas. Students will produce representations in two or more media forms. Students analyse how the application of the different media technologies affects the meanings that can be created in the representations. The implications for the creation, distribution and consumption of these representations are also discussed. Students will explore the emergence of new media technologies. The impact and implications of new media technologies are considered in the context of the capabilities of the technologies, their relationship with existing media, and how they provide alternative means of creation, distribution and consumption of media products.

**Outcomes** - Describe the construction of specific media representations and explain how the process of representation reproduces the world differently from direct experience of it. Construct media representations in two or more media forms and compare the representations produced by the application of different media technologies. Discuss the creative and cultural implications of new media technologies for the production and consumption of media products.

## MEDIA 2 - MEDIA PRODUCTION AND THE MEDIA INDUSTRY

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**Unit Statement** - In this unit students develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students participate in specific stages of a media production, developing practical skills in their designated role. Students also develop an understanding of media industry issues and developments relating to production stages and roles and the broader framework within which Australian media organisations operate.

**Content Outlines** - Media production – This area of study focuses on media production undertaken by students within a collaborative context and the student's explanation of the process. Media industry production – In this area of study students focus on national, international and global media industry issues, and the developments in the media industry and their impact on media production stages, and specialist roles within these stages. Australian media organisations – In this area of study students analyse Australian media organisations within a social, industrial and global framework.

**Outcomes** - Demonstrate specialist production skills within collaborative media productions, and explain and reflect on the media production process. Discuss media industry issues and developments relating to the production stages of a media product, and describe specialist roles within the media industry. Describe characteristics of Australian media organisations and discuss the social, cultural and industrial framework within which such organisations operate.

## **MEDIA 3 - NARRATIVE AND MEDIA PRODUCTION DESIGN**

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**Unit Statement** - The purpose of this unit is to enable students to develop an understanding of film, television or radio drama production and story elements, and learn to recognise the role and significance of narrative organisation in fictional film, television or radio drama texts. Students examine how production and story elements work together to structure meaning in narratives to engage audiences. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They complete a media production design plan for a specific media form and audience. They present the relevant specifications as a written planning document, with visual representations that employ media planning conventions appropriate to the media form in which the student chooses to work.

**Content Outlines** - Narrative - Analyse the narrative organisation of fictional film, television or radio drama texts. They undertake the study of at least two texts in the same media form. Media production skills – Focuses on the development of specific media production skills and technical competencies using media technologies and processes in one or more media forms. Media production design - Focuses on the preparation of a production design plan for a media product designed for a specific audience in a selected media form.

**Outcomes** - Analysis of the nature and function of production and story elements in narrative media texts, and discuss the impact of these elements on audience engagement. Use a range of technical equipment, applications and media processes and evaluate the capacity of these to present ideas, achieve effects and explore aesthetic qualities in media forms. Prepare and document a media production design plan in a selected media form for a specified audience.

## **MEDIA 4 - MEDIA PROCESS, SOCIAL VALUES AND MEDIA INFLUENCE**

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**Unit Statement** - The purpose of this unit is to enable students to further develop practical skills in the production of media products to realise the production design plan completed during Unit 3. Organisational and creative skills are refined and applied throughout each stage of the production process. Students analyse the relationship between media texts, social values and discourses in the media. The nature and extent of media influence, the relationship between the media, media audiences and media regulation are also critically analysed in this unit.

**Content Outlines** - Media process – Students complete a media product based on a media production design plan completed in Unit 3. Media texts and society's values – Focuses on the relationship between society's values and media texts. Media representations reflect and mediate ideas from particular economic, social, cultural, political or institutional points of view. Media influence – Focuses on an analysis of media influence. Students explore the complexity of the relationship between the media, its audience and the wider community in terms of the nature and extent of the media's influence.

**Outcomes** - Produce a media product for an identified audience, from the media production design plan prepared in Unit 3. Discuss and analyse the construction, distribution and interpretation of society's values as represented in media texts. Analyse and present arguments about the nature and extent of media influence.

## **OUTDOOR & ENVIRONMENTAL STUDIES 3 – RELATIONSHIPS WITH NATURAL ENVIRONMENTS**

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**Unit Statement** - In this unit students will focus on the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia. Students consider a number of factors that influence contemporary relationships with outdoor environments and examine the dynamic nature of relationships between humans and their environment.

**Content Outline** - Historical relationships with outdoor environments – focuses on how Australians have understood and interacted with outdoor environments over time.

Contemporary relationships with outdoor environments – focuses on current relationships between humans and outdoor environments and the impact of media and other social, cultural, economic and political factors that influence these relationships.

**Outcomes** - Explain and evaluate how relationships with Australian outdoor environments have changed over time, with reference to specific outdoor experiences. Analyse and evaluate the factors influencing contemporary societal relationships with outdoor environments, with reference to specific outdoor experiences.

## OUTDOOR & ENVIRONMENTAL STUDIES 4 – SUSTAINABLE OUTDOOR RELATIONSHIPS

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**Unit Statement** - In this unit students explore the sustainable use and management of outdoor environments. They examine the contemporary state of environments in Australia, consider the importance of healthy outdoor environments and examine the issues in relation to the capacity of outdoor environments to support the future needs of the Australian population. They examine the importance of the balance between human need and conservation.

**Content Outline** - Healthy outdoor environments – focuses on the contemporary state of environments in Australia and the importance of natural environments for individuals and society. Sustainable outdoor environments – focuses on the sustainability of environments in order to support future needs on ecosystems, individuals and society, and the skills needed to be an environmentally responsible citizen.

**Outcomes** - Evaluate the contemporary state of environments in Australia, and analyse the importance of healthy outdoor environments and sustainability for individuals and society, with reference to specific outdoor experiences. Analyse conflicts of interest over the use of outdoor environments, and evaluate practices and strategies for sustaining outdoor environments, with reference to specific outdoor experiences.

## PHYSICAL EDUCATION 1 – THE HUMAN BODY IN MOTION

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**Unit Statement** - In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity.

Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms.

They also recommend and implement strategies to minimise the risk of illness or injury to each system.

**Outcomes** - On completion of this unit students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement. Students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems.

## PHYSICAL EDUCATION 2 – PHYSICAL ACTIVITY, SPORT AND SOCIETY

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**Unit Statement** - This unit develops students' understanding of physical activity, sport and society from a participatory perspective. Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups. Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied. Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

**Outcomes**- On completion of this unit the student should be able to collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan that meets the physical activity and sedentary behaviour guidelines for an individual or a specific group. Students should be able to apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with participation in physical activity and/or sport in a local, national or global setting.

## PHYSICAL EDUCATION 3 – PHYSICAL ACTIVITY PARTICIPATION AND PHYSIOLOGICAL PERFORMANCE

**Unit Statement** - This unit introduces students to an understanding of physical activity and sedentary behaviour from a participatory and physiological perspective. The contribution of energy systems to performance in physical activity and the causes and different strategies used to delay and manage fatigue are also explored.

**Content Outline** – Monitoring and promotion of physical activity – focuses on subjective and objective methods of assessing physical activity and sedentary behaviour. Physiological responses to physical activity – focuses on the various systems and mechanisms associated with the energy required for human movement.

**Outcomes** – Analyse individual and population levels of Physical Activity and Sedentary Behaviour and promote adherence to National Physical Activity Guidelines. Use data collected in practical activities to analyse how the major body system work together to enable movement.

## PHYSICAL EDUCATION 4 – ENHANCING PERFORMANCE

**Unit Statement** - This unit introduces students to the methods of improving physical performance, in particular fitness, through the ability of the individual or coach to acquire, apply and evaluate knowledge and understanding about training.

**Content Outline** – Monitoring and promotion of physical activity- focuses on subjective and objective methods of assessing physical activity and sedentary behaviour. Physiological responses to physical activity- focuses on the various systems and mechanisms associated with the energy required for human movement.

**Outcomes** – Analyse individual and population levels of physical activity and sedentary behaviour and promote adherence to National Physical Activity Guidelines. Use data collected in practical activities to analyse how the major body systems work together to enable movement.

## PHYSICS 1- WHAT IDEAS EXPLAIN THE PHYSICAL WORLD?

**Unit Statement** - Ideas in physics are dynamic. As physicists explore concepts, theories evolve. Often this requires the detection, description and explanation of things that cannot be seen. In this unit students explore how physics explains phenomena, at various scales, which are not always visible to the unaided human eye. They examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. Students consider thermal concepts by investigating heat, probe common analogies used to explain electricity and consider the origins and formation of matter. Students use thermodynamic principles to explain phenomena related to changes in thermal energy. They apply thermal laws when investigating energy transfers within and between systems, and assess the impact of human use of energy on the environment. Students examine the motion of electrons and explain how it can be manipulated and utilised. They explore current scientifically accepted theories that explain how matter and energy have changed since the origins of the Universe.

**Outcomes** – On completion of this unit the student should be able to apply thermodynamic principles to analyse, interpret and explain changes in thermal energy in selected contexts, and describe the environmental impact of human activities with reference to thermal effects and climate science concepts. They should also be able to investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community and be able explain the origins of atoms, the nature of subatomic particles and how energy can be produced by atoms.

## PHYSICS 2- WHAT DO EXPERIMENTS REVEAL ABOUT THE PHYSICAL WORLD?

**Unit Statement** - In this unit students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments. Students make direct observations of physics phenomena and examine the ways in which phenomena that may not be directly observable can be explored through indirect observations.

In the core component of this unit students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary. Students choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science. The option enables students to pursue an area of interest by investigating a selected question.

Students design and undertake investigations involving at least one independent, continuous variable.

**Outcomes** - On completion of this unit the student should be able to investigate, analyse and mathematically model the motion of particles and bodies. They should also be able to demonstrate understanding of their chosen area of interest. Students should be able to design and undertake an investigation of a physics question related to the scientific inquiry processes of data collection and analysis, and draw conclusions based on evidence from collected data.

## PHYSICS 3 HOW DO FIELDS EXPLAIN MOTION AND ELECTRICITY?

**Unit Statement** - In this unit students explore the importance of energy in explaining and describing the physical world. They examine the production of electricity and its delivery to homes. Students consider the field model as a construct

that has enabled an understanding of why objects move when they are not apparently in contact with other objects. Applications of concepts related to fields include the transmission of electricity over large distances and the design and operation of particle accelerators. They explore the interactions, effects and applications of gravitational, electric and magnetic fields. Students use Newton's laws to investigate motion in one and two dimensions, and are introduced to Einstein's theories to explain the motion of very fast objects. They consider how developing technologies can challenge existing explanations of the physical world, requiring a review of conceptual models and theories. Students design and undertake investigations involving at least two continuous independent variables. **Outcomes** - On completion of this unit the student should be able to analyse gravitational, electric and magnetic fields, and use these to explain the operation of motors and particle accelerators and the orbits of satellites. Students should be able to analyse and evaluate an electricity generation and distribution system. Students should also be able to investigate motion and related energy transformations experimentally, analyse motion using Newton's laws of motion in one and two dimensions, and explain the motion of objects moving at very large speeds using Einstein's theory of special relativity.

## **PHYSICS 4 HOW CAN TWO CONTRADICTIONARY MODELS EXPLAIN BOTH LIGHT AND MATTER?**

**Unit Statement** - A complex interplay exists between theory and experiment in generating models to explain natural phenomena including light. Wave theory has classically been used to explain phenomena related to light; however, continued exploration of light and matter has revealed the particle-like properties of light. On very small scales, light and matter – which initially seem to be quite different – have been observed as having similar properties. In this unit, students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and explore its limitations in describing light behaviour. Students further investigate light by using a particle model to explain its behaviour. A wave model is also used to explain the behaviour of matter which enables students to consider the relationship between light and matter. Students learn to think beyond the concepts experienced in everyday life to study the physical world from a new perspective. Students design and undertake investigations involving at least two continuous independent variables. **Outcomes** - On completion of this unit the student should be able to apply wave concepts to analyse, interpret and explain the behaviour of light. Students should be able to provide evidence for the nature of light and matter, and analyse the data from experiments that supports this evidence. Students should also be able to design and undertake a practical investigation related to waves or fields or motion, and present methodologies, findings and conclusions in a scientific poster.

## **PRODUCT DESIGN & TECHNOLOGY 1 – PRODUCT RE-DESIGN AND SUSTAINABILITY**

**Unit Statement** - This unit focuses on the analysis, modification and improvement of an existing product. Students will re-design a product with consideration of the materials used and issues of sustainability.

**Content Outline** - An introduction and structured approach towards the Product design process and Product design factors. Students learn about intellectual property (IP), its implications related to product design and the importance of acknowledging the IP rights of the original designer. Produce a re-designed product safely using tools, equipment, machines and materials, compare it with the original design and evaluate it against the needs and requirements outlined in their design brief.

**Outcomes** - Re-design a product using suitable materials with the intention of improving aspects of the product's aesthetics, functionality or quality, including consideration of sustainability. Evaluate materials, tools, equipment and processes to make a re-designed product and compare the finished product with the original design.

**Extra Requirement** – Students to purchase their own materials, textbook and A3 Folio

## **PRODUCT DESIGN & TECHNOLOGY 2 – COLLABORATIVE DESIGN**

**Unit Statement** - In this unit students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. They focus on factors including: human needs and wants; function, purpose and context for product design; aesthetics; materials and sustainability; and the impact of these factors on a design solution. Teamwork encourages communication between students and mirrors professional design practice where designers often work within a multi-disciplinary team to develop solutions to design problems. Students also examine the use of ICT to facilitate teams that work collaboratively but are spread across the globe.

**Content Outline** - Work both individually and as members of a small design team to address a problem, need or opportunity and consider the associated human-centred design factors. Design a product within a range, based on a theme, or a component of a group product. They research and refer to a chosen style or movement. In Area of Study 2 the product produced individually or collectively is evaluated.

**Outcomes** - Design and plan a product in response to a design brief based on a common theme, both individually and within a team. Justify, manage and use appropriate production processes to safely make and evaluate a product, individually and as a member of a team.

## **PRODUCT DESIGN & TECHNOLOGY 3 – APPLYING THE PRODUCT DESIGN PROCESS**

**Unit Statement** - In this unit students are engaged in the design and development of a product that meets the needs and expectations of a client and/or an end-user, developed through a design process and influenced by a range of complex factors. These factors include the purpose, function and context of the product; human-centred design factors;

innovation and creativity; visual, tactile and aesthetic factors; sustainability concerns; economic limitations; legal responsibilities; material characteristics and properties; and technology. Design and product development and manufacture occur in a range of settings. An industrial setting provides a marked contrast to that of a 'one-off situation' in a small 'cottage' industry or school setting. Although a product design process may differ in complexity or order, it is central to all of these situations regardless of the scale or context.

**Content Outline** - Students examine how a design brief is structured, how it addresses particular Product design factors and how evaluation criteria are developed from the constraints and considerations in the brief. They develop an understanding of techniques in using the design brief as a springboard to direct research and design activities. Students also examine how a range of factors, including new and emerging technologies, and international and Australian standards, influence the design and development of products within industrial manufacturing settings and associated with obsolescence and sustainability models.

**Outcomes** - Explain the role of the designer, client, or end user, the product design process and its initial stages, including investigation and defining a design problem, and explain how the design process leads to product design development. Explain and analyse influences on the design, development and manufacture of products within industrial settings. Present a folio that documents the Product design process used while working as a Designer to meet the needs of a client and commence the production of the designed product.

## **PRODUCTION DESIGN & TECHNOLOGY 4 – PRODUCT DEVELOPMENT, EVALUATION AND PROMOTION**

**Unit Statement** - In this unit students learn that evaluations are made at various points of product design, development and production. In the role of designer, students judge the suitability and viability of design ideas and options referring to the design brief and evaluation criteria in collaboration with a client and/or an end-user. Comparisons between similar products help to judge the success of a product in relation to a range of Product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the Product design factors.

**Content Outline** - Students use comparative analysis and evaluation methods to make judgements about commercial product design and development. They continue to develop and safely manufacture the product designed in Unit 3, Outcome 3, using materials, tools, equipment and machines, and record and monitor the production processes and modifications to the production plan and product. They evaluate the effectiveness and efficiency of techniques used and the quality of their product with reference to evaluation criteria and client and/or end-user feedback. Students make judgements about possible improvements. They produce an informative presentation to highlight the product's features to the client and or an end-user and explain its care requirements.

**Outcomes** - Analyse and evaluate similar commercial products, taking into account a range of factors and using appropriate techniques. Safely apply a range of production skills and processes to make the product designed in Unit 3, and manage time and resources effectively and efficiently. Evaluate the outcomes of the design, planning and production activities, explain the products design features to the client and outline its care requirements.

## **PSYCHOLOGY 1- HOW ARE BEHAVIOUR AND MENTAL PROCESSES SHAPED?**

**Unit Statement** - Human development involves changes in thoughts, feelings and behaviours. In this unit students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. Students explore brain plasticity and the influence that brain damage may have on a person's psychological functioning. They consider the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary studies have made to an understanding of the human brain and its functions, and to the development of different psychological models and theories used to predict and explain the development of thoughts, feelings and behaviours. A student-directed research investigation related to brain function and/or development is undertaken in this unit.

**Outcomes** - On completion of this unit the student should be able to describe how understanding of brain structure and function has changed over time, explain how different areas of the brain coordinate different functions, and explain how brain plasticity and brain damage can change psychological functioning. They should also be able to identify the varying influences of nature and nurture on a person's psychological development, and explain different factors that may lead to typical or atypical psychological development. Students should be able to investigate and communicate a substantiated response to a question related to brain function and/or development, including reference to at least two contemporary psychological studies and/or research techniques.

## PSYCHOLOGY 2- HOW DO EXTERNAL FACTORS INFLUENCE BEHAVIOUR AND MENTAL PROCESSES?

**Unit Statement** - A person's thoughts, feelings and behaviours are influenced by a variety of biological, psychological and social factors. In this unit students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted. They evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of an individual and groups. They examine the contribution that classical and contemporary research has made to the understanding of human perception and why individuals and groups behave in specific ways. A student practical investigation related to internal and external influences on behaviour is undertaken in this unit.

**Outcomes** - On completion of this unit the student should be able to compare the sensations and perceptions of vision and taste, and analyse factors that may lead to the occurrence of perceptual distortions, they should be able to identify factors that influence individuals to behave in specific ways, and analyse ways in which others can influence individuals to behave differently. Students should also be able to design and undertake a practical investigation related to external influences on behaviour, and draw conclusions based on evidence from collected data.

## PSYCHOLOGY 3 HOW DOES EXPERIENCE AFFECT BEHAVIOUR AND MENTAL PROCESSES?

**Unit Statement** - The nervous system influences behaviour and the way people experience the world. In this unit students examine both macro-level and micro-level functioning of the nervous system to explain how the human nervous system enables a person to interact with the world around them. They explore how stress may affect a person's psychological functioning and consider the causes and management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, the development of new capacities and changed behaviours.

They consider the limitations and fallibility of memory and how memory can be improved. Students examine the contribution that classical and contemporary research has made to the understanding of the structure and function of the nervous system, and to the understanding of biological, psychological and social factors that influence learning and memory.

**Outcomes** - On completion of this unit the student should be able to explain how the structure and function of the human nervous system enables a person to interact with the external world and analyse the different ways in which stress can affect nervous system functioning. Students should be able to apply biological and psychological explanations for how new information can be learnt and stored in memory, and provide biological, psychological and social explanations of a person's inability to remember information.

## PSYCHOLOGY 4 HOW IS WELLBEING DEVELOPED AND MAINTAINED?

**Unit Statement** - Consciousness and mental health are two of many psychological constructs that can be explored by studying the relationship between the mind, brain and behaviour. In this unit students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a biopsychosocial approach, as a scientific model, to analyse mental health and disorder. They use specific phobia to illustrate how the development and management of a mental disorder can be considered as an interaction between biological, psychological and social factors. Students examine the contribution that classical and contemporary research has made to the understanding of consciousness, including sleep, and the development of an individual's mental functioning and wellbeing.

**Outcomes** - On completion of this unit the student should be able to explain consciousness as a continuum, compare theories about the purpose and nature of sleep, and elaborate on the effects of sleep disruption on a person's functioning. Students should be able to explain the concepts of mental health and mental illness including influences of risk and protective factors, apply a biopsychosocial approach to explain the development and management of specific phobia, and explain the psychological basis of strategies that contribute to mental wellbeing. Students should also be able to design and undertake a practical investigation related to mental processes and psychological functioning, and present methodologies, findings and conclusions in a scientific poster.

## STUDIO ARTS 1 – STUDIO INSPIRATION AND TECHNIQUES

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**Unit Statement** - In this unit students focus on developing an individual understanding of the stages of studio practice and learn how to explore, develop, refine, resolve and present artworks. Students explore sources of inspiration, research artistic influences, develop individual ideas and explore a range of materials and techniques related to specific art forms.

Using documented evidence in a visual diary, students progressively refine and resolve their skills to communicate ideas in artworks.

Students also research and analyse the ways in which artists from different times and cultures have developed their studio practice to interpret and express ideas, source inspiration and apply materials and techniques in artworks.

The exhibition of artworks is integral to Unit 1 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

**Outcomes** - On completion of this unit the student should be able to identify sources of inspiration and artistic influences and outline individual ideas, art forms and aesthetic qualities, and translate these into visual language. student should be able to produce at least one finished artwork and progressively record the development of their studio practice, conveying individual ideas through the exploration of materials and techniques in the selected art form/s. student should be able to produce at least one finished artwork and progressively record the development of their studio practice, conveying individual ideas through the exploration of materials and techniques in the selected art form/s. Students should also be able to discuss the artistic practice of artists from different times and cultures, their sources of inspiration, materials and techniques for at least two artworks by each artist.

## STUDIO ARTS 2 – STUDIO EXPLORATION AND CONCEPTS

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**Unit Statement** - In this unit students focus on establishing and using a studio practice to produce artworks. The studio practice includes the formulation and use of an individual approach to documenting sources of inspiration, and experimentation with selected materials and techniques relevant to specific art forms. Students explore and develop ideas and subject matter, create aesthetic qualities and record the development of the work in a visual diary as part of the studio process.

Through the study of art movements and styles, students begin to understand the use of other artists' work in the making of new artworks. Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand developments in studio practice. Using a range of art periods, movements or styles, students develop a broader knowledge about the history of art. Analysis is used to understand the artists' ideas and how they have created aesthetic qualities and subject matter. Comparisons of contemporary art with historical art styles and movements should be encouraged.

The exhibition of artworks is integral to Unit 2 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

**Outcomes** - On completion of this unit the student should be able to develop an individual exploration proposal to form the basis of a studio process, and from this produce and document a variety of potential directions in a visual diary for at least one artwork. Students should be able to compare a range of historical and contemporary art periods, styles or movements, and analyse the ways in which artists communicate ideas, develop styles and demonstrate aesthetic qualities in artworks.

## STUDIO ARTS 3 – STUDIO PRACTICES AND PROCESSES

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**Unit Statement** - In this unit students focus on the implementation of an individual studio process leading to the production of a range of potential directions. Students develop and use an exploration proposal to define an area of creative exploration.

They plan and apply a studio process to explore and develop their individual ideas. Analysis of these explorations and the development of the potential directions is an intrinsic part of the studio process to support the making of finished artworks in Unit 4.

For this study, the exploration proposal supports the student to identify a direction for their studio process. The student determines the studio process. This process records trialling, experimenting, analysing and evaluating the extent to which art practices successfully communicate ideas presented in the exploration proposal. From this process students progressively develop and identify a range of potential directions. Students will select some of these potential directions from which to develop at least two artworks in Unit 4.

The study of artists and their work practices and processes may provide inspiration for students' own approaches to art making. Students investigate and analyse the response of artists to a wide range of source material and examine their use of materials and techniques. They explore professional art practices of artists from different historical and cultural contexts in relation to particular artworks and art forms.

The exhibition of artworks is integral to Unit 3 and students are expected to visit a variety of exhibitions throughout the unit, reflect on the different environments where artworks are exhibited and examine how artworks are presented to an audience. Students are expected to visit at least two different exhibitions and study specific artworks displayed in these exhibitions during their current year of study.

**Outcomes** - On completion of this unit the student should be able to prepare an exploration proposal that formulates the content and parameters of an individual studio process including a plan of how the proposal will be undertaken. Students should be able to progressively present an individual studio process recorded in written and visual form that produces a range of potential directions, and reflects the concepts and ideas documented in the exploration proposal and work plan. Students should also be able to examine the practice of at least two artists, with reference to two artworks by each artist, referencing the different historical and cultural context of each artwork.

## STUDIO ARTS 4 – STUDIO PRACTICE AND ART INDUSTRY CONTEXTS

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**Unit Statement** - In this unit students focus on the planning, production and evaluation required to develop, refine and present artworks that link cohesively according to the ideas resolved in Unit 3. To support the creation of artworks, students present visual and written evaluation that explains why they selected a range of potential directions from Unit 3 to produce at least two finished artworks in Unit 4. The development of these artworks should reflect refinement and skillful application of materials and techniques, and the resolution of ideas and aesthetic qualities discussed in the exploration proposal in Unit 3. Once the artworks have been made, students provide an evaluation about the cohesive relationship between the artworks.

This unit also investigates aspects of artists' involvement in the art industry, focusing on at least two different exhibitions, that the student has visited in the current year of study with reference to specific artworks in those exhibitions. Students investigate the methods and considerations of the artist and/or curator involved in the preparation, presentation and conservation of artworks displayed in exhibitions in at least two different galleries or exhibitions. Students examine a range of environments for the presentation of artworks including public galleries and museums, commercial and private galleries, university art galleries, artist-run spaces, alternative art spaces and online gallery spaces.

**Outcomes** On completion of this unit the student should be able to present at least two finished artworks based on selected and evaluated potential directions developed through the studio process, which demonstrate refinement and application of materials and techniques, and that realise and communicate the student's ideas expressed in the exploration proposal. Students should be able to provide visual and written documentation that identifies and evaluates the extent to which the artworks reflect the selected potential directions, and effectively demonstrates a cohesive relationship between the works. Students should also be able to compare the methods used by artists and considerations of curators in the preparation, presentation, conservation and promotion of specific artworks in at least two different exhibitions.

## **VISUAL COMMUNICATION AND DESIGN 1 – INTRO TO VISUAL COMMUNICATION**

**Unit Statement** - This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to make messages, ideas and concepts visible and tangible. Students practice their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications. Through experimentation and exploration of the relationship between design elements and design principles, students develop an understanding of how design elements and principles affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design style, introducing students to the broader context of the place and purpose of design.

**Content Outline** - Drawing as a means of communication. Design elements and principles. Visual Communication design in context.

**Outcomes** - Create freehand and instrumental drawings for different purposes using a range of drawing methods, media and materials. Select and apply design elements and principles to create visual communications that satisfy stated purposes. Describe how visual communication has been influenced by past and contemporary practices and by social and cultural factors.

## **VISUAL COMMUNICATION AND DESIGN 2 – APPLICATIONS OF VISUAL COMMUNICATION**

**Unit Statement** - This unit focuses on the application of visual communication design knowledge, design thinking skills and drawing methods to create visual communications to meet specific purposes in designated design fields.

Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They investigate how typography and imagery are used in visual communication design. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field. Students develop an understanding of the design process as a means of organising their thinking about approaches to solving design problems and presenting ideas. In response to a brief, students engage in the stages of research, generation of ideas and development of concepts to create visual communications.

**Content Outline** - Technical drawing in context. Type and imagery. Applying the design process.

**Outcomes** - Create presentation drawings that incorporate relevant technical drawing conventions and effectively communicate information and ideas for a selected design field. Manipulate type and images to create visual communications suitable for print and screen-based presentations, taking into account copyright. Engage in stages of the design process to create a visual communication appropriate to a given brief.

## **VISUAL COMMUNICATION AND DESIGN 3 – DESIGN & THINKING PRACTICES**

**Unit Statement** - In this unit students gain an understanding of the process designers employ to structure their thinking and communicate ideas with clients, target audiences, other designers and specialists. Through practical investigation and analysis of existing visual communications, students gain insight into how the selection of methods, media, materials and the application of design elements and principles can create effective visual communications for specific audiences and purposes. They investigate and experiment with the use of manual and digital methods, media and materials to make informed decisions when selecting suitable approaches for the development of their own design ideas and concepts.

**Content Outline** - Analysis and practice in context. Design industry practice. Developing a brief and generating ideas.

**Outcomes** - Create visual communications for specific contexts, purposes and audiences that are informed by their analysis of existing visual communications. Describe how visual communications are designed and produced in the design industry and explain factors that influence these practices. Apply design thinking skills in preparing a brief, undertaking research and generating a range of ideas relevant to the brief.

## **VISUAL COMMUNICATION AND DESIGN 4 – DESIGN DEVELOPMENT AND PRESENTATION**

**Unit Statement** - The focus of this unit is on the development of design concepts and two final presentations of visual communications to meet the requirements of the brief. This involves applying the design process twice to meet each of the stated needs. Having completed their brief and generated ideas in Unit 3, students continue the design process by developing and refining concepts for each need stated in the brief. They utilise a range of digital and manual two and three dimensional methods, media and materials. They investigate how the application of design elements and principles creates different communication messages with their target audience.

**Content Outline** - Development of design concepts. Final presentations. Evaluation and explanation.

**Outcomes** - Develop distinctly different design concepts for each need and select and refine each concept to satisfy all of the requirements of the brief. Produce final visual communication presentations that satisfy the requirements of the brief. Devise a pitch to present and explain their visual communications to an audience and evaluate the visual communications against the brief.

## VCAL INTERMEDIATE OR SENIOR PROGRAM

These programs develop skills and knowledge while building independent learning, through a reasonable degree of self-directed planning of learning activities.

- All students will select the combined Personal Development Skills and Work Related Skills subject (compulsory for a VCAL cert).
- Students may choose to select VCAL Literacy or select a VCE English subject.
- Students may choose to select a VCAL Numeracy or select a VCE Mathematics subject.
- In addition students will need to select a VET course and some VCE subjects.

VCAL outcomes are met through students demonstrating competency with the learning outcomes of each unit. Assessment of competency is made by students building up a portfolio of evidence for each unit. These will include samples of work completed and the use of digital images. The VCAL Senior Program builds on the progress made at the intermediate level.

Students must undertake a minimum of 10 credits. Each subject equals one credit.

A typical Intermediate VCAL Program.

SEMESTER	LITERACY & NUMERACY SKILLS	INDUSTRY SPECIFIC SKILLS	WORK RELATED SKILLS	PERSONAL DEVELOPMENT SKILLS
1	VCE English Unit 1 <b>Or</b> VCAL Literacy Unit 1 and VCAL Numeracy Skills Intermediate	VET Certificate II/III e.g. VET Hospitality and One day per week work placement.	VCE Food & Technology Unit 1 <b>Or</b> VCE Design & Technology Unit 1 <b>Or</b> VCE Outdoor Education and Environmental Studies Unit 1	Personal Development Intermediate Unit 1
2	VCE English Unit 2 <b>Or</b> VCAL Literacy Unit 2 and VCAL Numeracy Skills Intermediate	VET Certificate II/III e.g. VET Hospitality and One day per week work placement	VCE Food & Technology Unit 2 <b>Or</b> VCE Design & Technology Unit 2 <b>Or</b> VCE Outdoor Education and Environmental Studies Unit 2	Personal Development Intermediate Unit 2

## VCAL LITERACY

The purpose of this unit is to enable learners to develop the skills and knowledge to read and write a range of texts on everyday subject matters which include some unfamiliar aspects or material. At this level learners, once they have identified the audience and purpose of the text, use the writing process to produce texts that link several ideas or pieces of information. In reading, learners identify how, and if, the writer has achieved his or her purpose and express an opinion on the text taking into account its effectiveness. Studies are undertaken at Intermediate level (Year11) or Senior level (Year 12).

### Outcomes:

Writing for Self Expression – Focuses on writing a recount, narrative or expressive text using stages of the writing process.

Writing for Practical Purposes – Write an instructional or transactional text identifying an audience and purpose of text .

Writing for Knowledge – Write a report or explanatory texts e.g. write a report to local newspaper on an upcoming event.

Writing for Public Debate – Write an argumentative or discursive text.

Reading for Self Expression – Demonstrate that meaning has been gained from reading a narrative, recount or expressive text.

Reading for Practical Purposes – Demonstrate that meaning has been gained from reading an instructional or transactional text.

Reading for Knowledge – Demonstrate that meaning has been gained from reading an explanatory or informative text.

Reading for Public Debate – Demonstrate that meaning has been gained from reading a persuasive or argumentative text.

Oracy for Knowledge – Use and respond to spoken language in informative talks

Oracy for Practical Purposes – Use and respond to spoken language in instructions and transactions

Oracy for Exploring Issues & Problem Solving – Use and respond to spoken language in discussions to explore issues or solve problems.

**General Skills:** reading, writing and oral communication skills.

## VCAL NUMERACY

VCAL Numeracy can be studied at Intermediate level (Year11) or Senior level (Year12). The course allows students to apply learnt skills to everyday problems. Students will complete assignment work that is 'hands-on' and often related to tasks being completed in the Personal Development units. Underpinning the VCAL Numeracy Skills Unit is the concept that skills development occurs best when it takes place within social contexts and for social purpose.

**Outcomes:** Numeracy for Personal Organisation – Location, money and time.  
Numeracy for Interpreting Society – Numerical Information and Data  
Numeracy for Practical Purposes - Design and Measuring  
Numeracy for Knowledge – Formulae, graphs, algebraic techniques, problem solving.

**General Skills:** problem solving; applying ideas to everyday situations, communication.

## INTERMEDIATE PERSONAL DEVELOPMENT SKILLS AND WORK RELATED SKILLS

Students will have opportunities to develop their readiness for independent learning; for the development of employability skills for specific vocational fields of interest. This will be achieved through a number of activities, projects and learning opportunities that are decided by the group with their teacher. Students will update Safe@Work modules and other Occupational Health and Safety training in readiness for work placements. Reflection on work place experiences becomes part of the learning experience. Personal Development is a compulsory Unit that focuses on the development of organisation and planning skills, knowledge, practical skills, problem solving and interpersonal skills through participation in experiences of a practical nature.

To meet the Work Related Skills strand students must choose from one of the following;

- Outdoor and Environmental Studies
- VCE Food and Technology
- VCE Product Design and Technology
- VCE IT Applications or Software Development
- VCE Systems Engineering

**Outcomes:** Plan and organise a complex activity; Demonstrate self-management skills for goal achievement; Demonstrate knowledge, skills and abilities in the context of an activity or project; Describe leadership skills and responsibilities; Utilise interpersonal skills to communicate ideas and information; Identify planning and organisation skills relevant for management of health or community service goals/activities; Demonstrate skills relevant to complex problem solving and comprehension; Demonstrate knowledge and skills related to a hobby, study or interest; Demonstrate knowledge and skills to present information to an audience; Use spoken English and active listening skills to communicate complex ideas and information;

**Key Tasks :** group and task discussions; group project work; volunteering for community goals; team building exercises; sport and recreation activities; resume development; industry visits.

**General Skills:** team work; planning and organisation; problem solving; communication.

## SENIOR PERSONAL DEVELOPMENT SKILLS

The purpose of this unit is to focus on the development of organisation and planning skills, knowledge, practical skills, problem solving and interpersonal skills through participation in experiences of a practical nature. As part of the VCAL program students participate in complex projects and activities in their community and school that help develop teamwork skills and self-confidence. Students are required to show a high degree of independent learning.

**Outcomes** Plan and organise to completion a complex project involving a range of related activities; Apply an awareness of cultural activities within a complex project; Apply strategies to improve organisational communication; Demonstrate leadership skills for group and teamwork; Use decision-making skills in a group or team context; Develop personal goals involving strategies, timelines of personal interest; Apply evaluative and problem-solving skills to planning; Demonstrate knowledge of facts & concepts specific to technical activity; Manage the coordination of an activity or program; Present and communicate ideas and information.

## INDUSTRY SPECIFIC SKILLS

The purpose of this unit is to enable the development of skills, knowledge and attitudes related to vocational areas that lead to further learning or employment. A VCAL learning program must include industry specific units from Vocational Education and Training (VET) programs or VCE VET (a 2 year program).

The range of VET options is extensive with recognised training packages available from industries including automotive, engineering, building and construction, hospitality and retail, agriculture, horticulture and hair and beauty. Echuca College advises that you should attend the VET Information Sessions in July and sign up for a VET program as spaces are limited. A \$200 deposit is required to secure a place in the VET program – the remaining \$200 will need to be paid by the end of October.

## **VETIS COURSES**

### **VCE VET AUTOMOTIVE**

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Qualification: Certificate II in Automotive Studies (Pre-Vocational) 22015VIC

Learn: Provides a basic operational knowledge of a range of Automotive Technologies such as basic vehicle servicing, replacing wheel and tyre assemblies, remove and replace suspension, clutch and engine cylinder head, dismantle and assemble transmission, carburettor and fuel pumps.

Leads to: Further education/apprenticeship or related jobs such as Panel Beater, Light/Heavy/Motorcycle Vehicle Mechanic, Trimmer or onto University as an Automotive Engineer.

### **VCE VET BUILDING & CONSTRUCTION**

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Qualification: Certificate II in Building and Construction (Pre Apprenticeship) 21844VIC

Learn: Skills related to employment in the building and construction industry such as white card, first aid, power tool management, building structures, documents and plans, scaffolding, basic setting out, sub floor, wall and roof framing.

Leads to: Apprenticeship in area such as general construction, painting and decorating, bricklaying, and carpentry.

### **VCE VET BEAUTY**

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Qualification: Certificate II in Make Up Services/Skills Sets

Learn: Working effectively in a retail environment, communicating in the workplace and working effectively, demonstrating skin care products and designing and applying makeup.

Leads to: Salon assistant, beautician.

### **VCE VET COMMUNITY SERVICE**

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Qualification: Certificate III Community Service CHC32015

Learn: Undertake units that provide participants with the knowledge and skills to achieve competencies that will enhance their employment prospects within a broad range of Community Services related industries.

Leads to: Full qualification as an Early Childhood Educator. Also leads to nanny, family day care worker and playgroup supervisor.

### **VCE VET ELECTRICAL**

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Learn: Undertake units that will directly lead toward your Electrical Apprenticeship. This course will cover the basic modules required including Occupational Health and Safety, working in manufacturing or engineering, environment, interpreting drawings and using power tools, alongside specific electrical units, that will allow you to fast track your career.

Leads to: Electrical apprenticeships, then electrician or electrical trades.

### **VCE VET ENGINEERING (SA)**

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Qualification: Certificate II in Engineering Studies 22209VIC

Learn: Provides you with the necessary skills and knowledge to undertake an apprenticeship in the engineering trade such as using hand tools, power tools, performing basic machining processes and applying basic fabrication techniques. Students will also develop an individual career plan for the engineering industry.

Leads to: Further education/apprenticeships in the metal trades, mechanical engineer, electrical engineer, surveyor etc.

### **VCE VET FURNITURE MAKING (SA)**

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Qualification: Certificate II in Furniture Making (pre apprenticeship) LMF20309

Learn: Knowledge of timber and other furnishing materials, plus provide the ability to read plans while working on a range of projects.

Leads to: Furniture/cabinet maker, picture framer, wood machinist, kitchen fitter.

## **VCE VET HOSPITALITY**

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Qualification: Certificate II in Hospitality (Kitchen Operations) SIT20307

Learn: Provides students with training and skills for the achievement of competency in food and beverage service such as organising, preparing and presenting food, working in socially diverse environment, workplace hygiene and safety, receiving and storing supplies preparing appetisers, salads, soups, poultry and deserts.

Leads to: Further education/apprenticeship, front of house role, catering operations, restaurants, pubs, clubs, cafes. tele-communications.

## **VCE VET MUSIC (SA)**

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Qualification: Certificate III in Music CUS30109

Learn: A broad range of knowledge and skills in the music industry such as developing composition and performance skills both individually and as a group, making a music demo, working effectively in the industry and further developing technical skills.

Leads to: Higher education, professional musician, songwriter, teacher and a promoter.

## **VCE VET SPORT & RECREATION**

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Qualification: Certificate III in Sport and Recreation SIS30513

Learn: Provides the knowledge and skills to achieve competencies that will enhance their employment prospects in the sport and recreation industries.

Leads to: Sport and recreation programs, fitness centre, outdoor sporting grounds, aquatic centres.

# VCE GLOSSARY OF TERMS

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## **Coursework Assessment**

Tasks completed, mainly in class time, to establish performance in Unit 1 & 2. It must conform to the study design.

## **ATAR**

Australian Tertiary Admission Rank. It is the overall ranking on a scale of 0-99.5 that you receive, based on your study scores (see below). The ATAR is used by Universities and TAFE institutes to select students for their courses.

## **GAT**

General Achievement Test. A test that is done by all students doing a Unit 3 & 4 sequence. It is used by the VCAA to check that schools are marking school-assessed tasks to the same standard. It doesn't count towards your VCE graduation, but your GAT results are reported to you with your Statement of Results.

## **Learning outcomes**

What you must know, or be able to do, by the time you have finished a unit.

## **SAC = School Assessed Coursework**

Assessment of work, mainly in class time, to establish performance in Units 3 & 4. The assessment must conform to the Study Design and is marked by Unit 3 & 4 teachers according to VCAA criteria.

## **Satisfactory completion**

In plain language, this means you have passed a unit. You get an 'S' for the unit. If you do not satisfactorily complete a unit, you get an 'N' for it.

## **ASBA**

Australian School Based Apprenticeship Program. Nationally recognised vocational studies now integrated within the VCE.

**Sequence** The order in which you do your units, for example, a Unit 3 and 4 sequence.

## **Statement of Results**

A set of documents that formally state the results you achieved in the VCE, and whether you have graduated.

## **Structured Workplace Learning**

The placement of a student into an industrial setting for on-the-job learning and assessment. It is an essential element of VET, VCAL and ASBA programs. The student is assessed, by a workplace assessor, as either '**competent**' or '**not yet competent**' in the performance of their tasks judged against nationally accredited vocational criteria.

## **Study Design**

The description of the content of a study, and how student's work is to be assessed. A Study Design for each VCE study is published by the VCAA. Schools and other VCE providers must adhere to the study designs.

## **Study Score**

(Relative Position) A score from 0 - 50 which shows how you performed in a study, relative to all other students doing that same study. It is based on your results in school assessments and examinations.

**Units** The parts of a study. There are usually four units in a study, numbered 1, 2, 3, and 4.

## **Victorian Curriculum and Assessment Authority [VCAA]**

A Victorian State Government authority responsible to the Minister of Education for delivery and assessment of the VCE.

**VCAL** Victorian Certificate of Applied Learning.

**VET** Vocational Education and Training. A range of nationally recognised vocational studies within the VCE





# Echuca College

DIVERSITY OF  
STRENGTH

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