



YEAR 11 & 12 HANDBOOK



2023



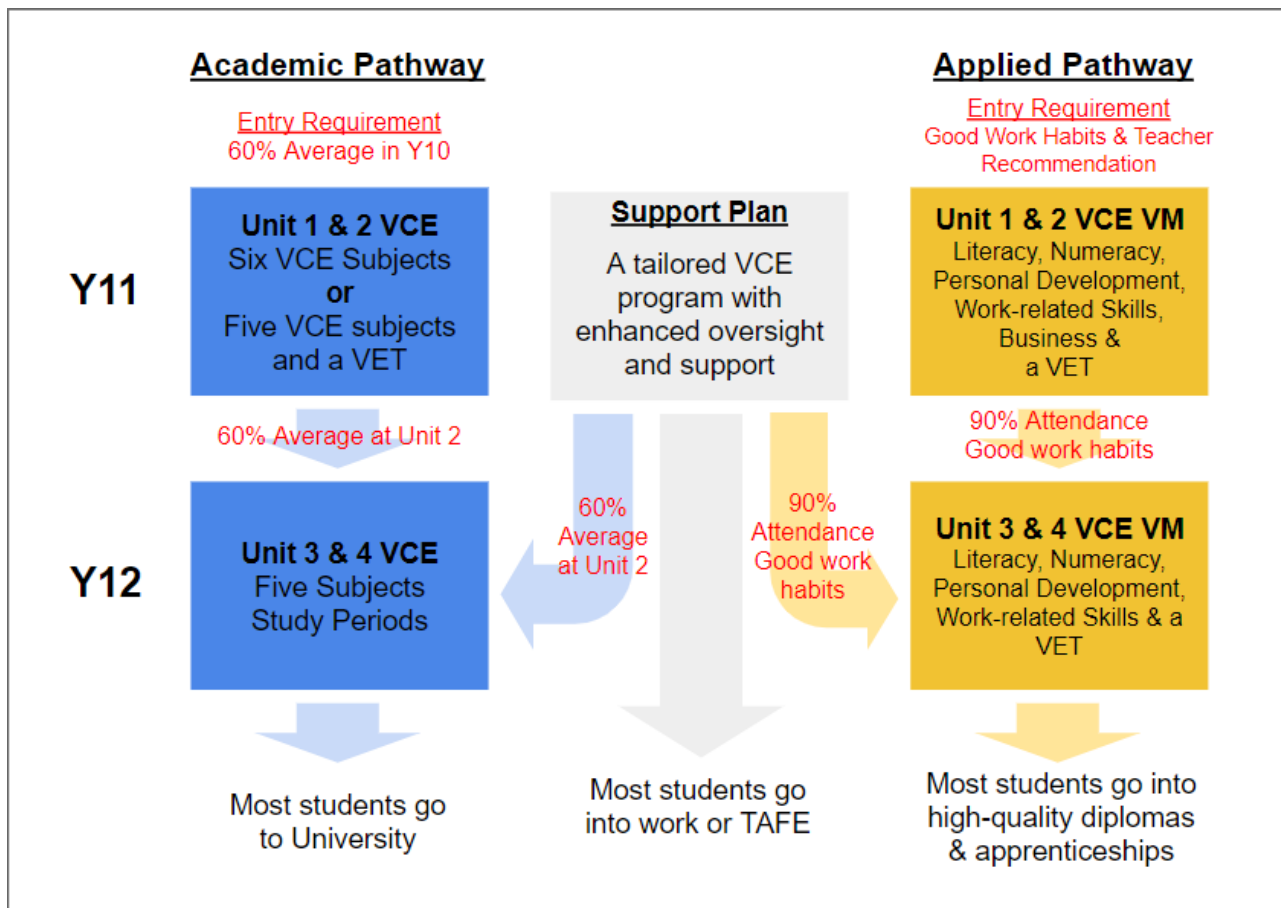
Year 11 and 12 Pathways

At Thornbury High School we offer two main pathways for our Senior School students. Both pathways result in a VCE certificate at the end of year 12.

The **Academic Pathway** is the best option for students who know they want to go straight to university when they finish school. Over the two years students work towards a VCE certificate and an Australian Tertiary Admission Rank (ATAR) that will allow them to apply directly to selective university courses. This is an academically demanding pathway and students should choose this if they enjoy school work and have a track-record of success in year 9 and 10. Students qualify automatically for the academic pathway if they have an average score of 60% in their year 10 Semester 1 reports.

The **Applied Pathway** is the best option for students who have clear career goals and do not wish to go to university straight after they finish school. Instead they may be considering competitive Diplomas, Apprenticeships, Traineeships or direct employment. Students on the Applied Pathway still work towards a VCE Certificate (the same qualification as the Academic Pathway), but instead of year 12 exams they complete a Vocational Major. Along the way they complete a combination of classroom-based study and practical training via a Vocational Education and Training (VET) subject. This pathway involves much more group work than the Academic Pathway and is not assessed via exams. Since students usually split their time between school and other institutions, it also requires a greater level of independence and motivation. Places are limited and entry is subject to excellent attendance in year 10, a record of good work habits and an interview.

Students who do not meet the automatic entry criteria for the Academic Pathway and are not successful in their application for the Applied Pathway will be given the option of continuing at Thornbury High School on a Support Plan. We will design a program of study for them that maximises their options in the future, allowing opportunity for them to move into either the Academic or Applied Pathways at the end of year 11 or to transition into work or training elsewhere.



Subject selection

This subject selection handbook has been designed to assist students in their selection of VCE subjects for 2023. It should be used in conjunction with the parent information evening, level assemblies, class and individual career counselling that is provided for students and parents during term three. We also have a dedicated careers website which is full of further guidance for students making these difficult decisions: www.thornburyhscareers.com

How are the senior years different?

In the Senior School all students are expected to take more responsibility for their own learning, with the teacher acting more as a facilitator to the learning rather than a director. It is not just a matter of gaining skills and knowledge, but of being able to apply them independently in an increasing range of situations. All students will get more homework than they are used to, requiring increased self-discipline and motivation to complete tasks and revise efficiently. Year 12 students on the Academic Pathway have supervised study periods in our Senior School Study Centre to help them manage their workload effectively.

During years 7 to 10 the school designs content, assessment, rules and guidelines within a framework provided by the government and we have a large degree of freedom about how we do this. For year 11 and 12 students the Victorian Curriculum and Assessment Authority (VCAA) explicitly determines the study design, rules and guidelines for the VCE. It is important that students understand and follow the rules and expectations as teachers cannot modify them.

There is a summary of policies regarding satisfactory completion, authentication, attendance and plagiarism at the end of this guide. Full details are on the VCAA website: <https://www.vcaa.vic.edu.au/>

What will help students do their best?

As motivation and self-direction are very important, it is crucial that students select studies that interest them, provide them with confidence, and offer a positive challenge. Those who have excellent organisation and time management skills will work more efficiently and find it easier to work independently. A balanced lifestyle, where students have a high work ethic but also find time to socialise with family and friends, and continue other interests is important in personal development.

Many students also take on part-time paid work in year 11 and we encourage this. However, students must be careful to limit their hours so that commitments outside school do not prevent them from succeeding at school. We do not recommend any student take on more than eight hours a week.

When it comes to a daily routine, adequate rest, exercise and good nutrition are vital in helping students maintain good health and cope with the additional study required. All students should aim to sleep for eight hours a night, undertake some type of physical activity at least once a day and eat breakfast every day.

The Academic Pathway (VCE)

How does the VCE work?

- A VCE study (or subject) is generally designed to last for one year and is made up of two units.
- Units 1 and 2 (usually studied in Year 11) can be taken as single units.
- Units 3 and 4 (usually studied in Year 12) must be taken as a sequence of two units. That is, where students enrol in Unit 3 in a study, they will also be expected to enrol in Unit 4 of that study.
- Completing a Unit 3+4 sequence in Year 11 allows some students to add an extra study score to their final ATAR score, giving them an edge for very competitive programs.
- Students normally enrol in six studies (12 units) in Year 11 and five studies (10 units) in Year 12.
- Some students may elect to do a Vocational Education and Training subject (VET) as one of their six VCE options. This may happen onsite at Thornbury High School or through a partnership with another local provider.

What is required to successfully complete the VCE?

To be awarded the VCE, students must satisfactorily complete at least 16 units.

These units must include:

- An approved combination of at least three units from the group of English studies.
- At least three sequences of Unit 3+4 studies other than English.

Designing a program of study for the VCE

When selecting subjects for Years 11 and 12, one of the most important things is for students to keep their options as open as possible for further study. Students are encouraged to investigate tertiary courses of interest on the VTAC website, and ensure that the subjects selected do not limit future study options. Pay particular attention to maths and science subjects as prerequisites. Acceptance into creative arts courses is often based on a portfolio of work so consider choosing a relevant VCE subject.

VTAC: <https://delta.vtac.edu.au/CourseSearch/prerequisiteplanner.htm>

Students should discuss selections with teachers and parents. Students need to design a two year program and should consider the following:

Personal Interests

- What do you enjoy studying?
- What talents do you have?
- What careers do you find interesting?
- Is your program balanced?
- Have you challenged yourself?

Refer to your individual Morrisby Profile for suggested subjects <https://www.morrisby.com/>

External Requirements

- What prerequisites do certain Tertiary/TAFE courses expect?
- What units of study are preferred by employers?
- Can specific VCE units offer you credit transfers for some TAFE course?
- Have teachers/parents advised you against attempting certain subjects?
- Are you choosing a program for you, or following friends?
- Should you consider a VET? (Vocational Education and Training) to complement your VCE course?

Research all possible courses and careers

Students should consider career interests and aspirations as well as refer to their Morrisby Profile. Students should consult the government's Job Outlook website, The Good Universities Guide and the Thornbury High School Careers website (thornburyhscareers.com). Research the job and what exactly is involved. Students should identify University or TAFE courses that will provide the type of training they will need to enter the career areas that interest them.

Students and parents will have the opportunity to attend a counselling session at school before their course applications are due, to check that they have chosen a suitable course and met all VCAA requirements.

Students should prepare for their individual counselling session by completing an online Career Action Plan. To do this go to the Careers website <https://www.thornburyhscareers.com>

Sign into the student secure area, select My Career Portfolio from the menu on the left hand side and complete your Career Action Plan.

Enrolment policy, attendance and workload

It is anticipated that all students on the Academic Pathway will be full time unless they have special circumstances. In year 11, students will enrol in six subjects and aim to complete Unit 1 and Unit 2. In a small number of cases it is possible for a student to change a subject mid-year, but this should not be relied upon. In year 12, students will enrol in five subjects for the year and must complete Unit 3 and 4, with no opportunity to change mid-year.

Ninety percent attendance is required to automatically meet the VCAA requirements for course work completed in class to be authenticated. *It is also important to note that if a student is absent for an assessment task (a SAC) or for several days, they will be required to provide a medical certificate to ensure they are able to achieve Satisfactory Completion for the unit. This medical certificate cannot be post-dated.*

If a student is experiencing extenuating circumstances they may request to undertake fewer units. These circumstances may include: speaking English as an Additional Language (EAL), personal difficulties, a chronic illness or a disability. If a student undertakes a TAFE or Training program which does not carry credit for VCE, they may need to undertake fewer subjects or take an extra year to complete the VCE. The number of studies undertaken and attendance requirements will be arranged with the head of senior school.

The Applied Pathway (VCE VM)

The Applied Pathway is a more 'hands on' option for students in the Senior School that minimises exam-based assessment and maximises opportunities to learn the kind of practical and team-based skills that are essential for the workplace and tertiary study. Like the Academic Pathway, the Applied Pathway provides students with a VCE Certificate. In year 11, students on this pathway are in lessons at Thornbury High School four days a week with every Wednesday reserved for their VET (either at THS or at one of our partner schools). In year 12, students on this pathway are in lessons at THS three days a week, with one day set aside for their VET and another for structured workplace learning (SWL).

The Applied Pathway provides an ideal transition to both further training (via TAFE, Certificates, Diplomas and perhaps subsequently a Bachelor Degree) and employment (via an apprenticeship or traineeship, or direct employment). The structure of the VCE VM program also allows some students to undertake a School Based Apprenticeship or Traineeship while they continue their studies at Thornbury High School. Students can enrol and complete a Certificate II or III which would then lead into a Diploma course at tertiary level.

To succeed on the Applied Pathway it is essential that students have clear career goals and solid work habits. Students will need to submit a short application form and will be invited to attend an interview. Please note that positions are limited and only the most suitable applicants will be considered.

How is VCE VM assessed?

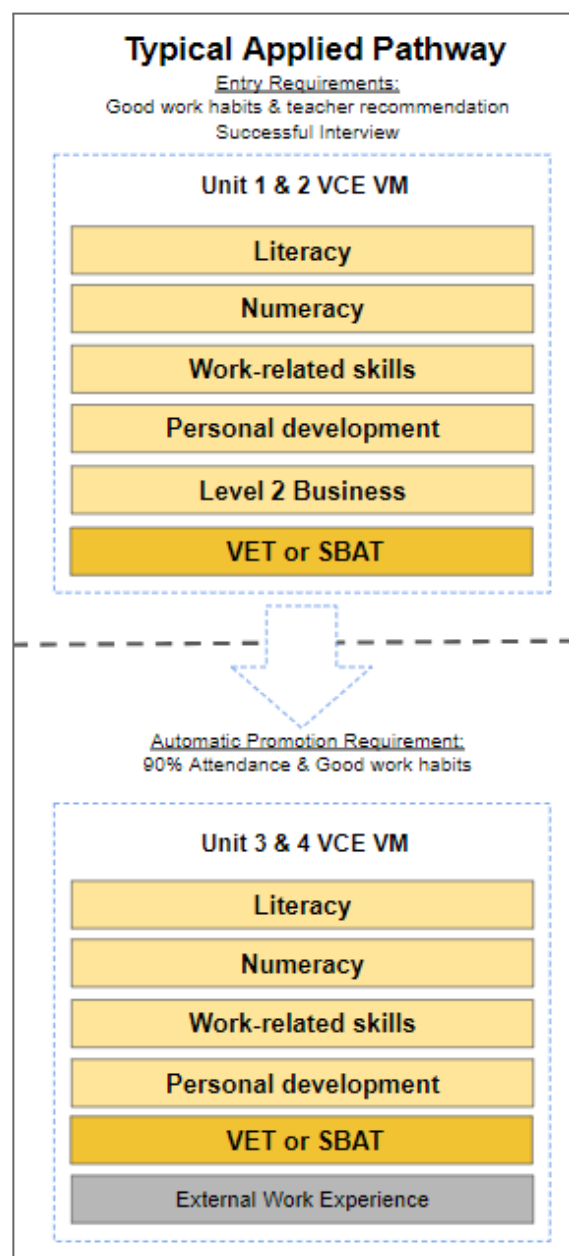
The basic requirements for the Applied Pathway are the same as for the Academic Pathway, with the addition of a mandatory VET subject. To achieve a VCE VM Certificate at the end of year 12 students must:

- Satisfactorily Complete 16 Units
- Satisfactorily Complete 3 Units from the Literacy/English grouping (including Unit 3 and 4)
- Satisfactorily Complete 3 other Unit 3 and 4 Sequences
- Complete at least 180 nominal hours (one full year) of a VET course

All accredited courses/certificates that make up the VCE VM program are assessed by the student's individual teacher in accordance with requirements. In general, this is based on the assessment of projects, activities and presentations that the students complete in class, either individually or as part of a group. All year 12 students completing the Applied Pathway will also have to complete a single General Aptitude Test which will grade their reading, writing and numeracy against national standards.

School Based Apprenticeships (SBAT)

Some students on this pathway may opt to undertake a School-based Apprenticeship (SBAT) rather than a VET (subject to timetabling constraints). This option is open to all students 15 years of age and over and who are permanent residents of Australia. It allows students to study in a practical environment and receive payment. Please note, this is subject to timetabling availability.



Subjects studied in VCE VM:

- VCE Literacy
- VCE Numeracy
- VCE Work-Related Skills
- VCE Personal Development
- VCE VET Business
- VCE VET of your choice / SBAT

Our VCE Vocational Major Coordinator is Ms Claudia Giarrusso.

VOCATIONAL EDUCATION & TRAINING (VET)

What is a VCE VET subject?

VCE VET (Vocational Education & Training) subjects are designed to enhance senior school studies with experience in practical career-specific contexts. A VCE VET subject allows a secondary student to include vocational training as part of their VCE studies. Students on the Academic Pathway may elect to take a VET subject as one of their six VCE options. All students on the Applied Pathway must take a VET. The delivery of this VET may happen onsite at THS or through a partnership with another local provider.

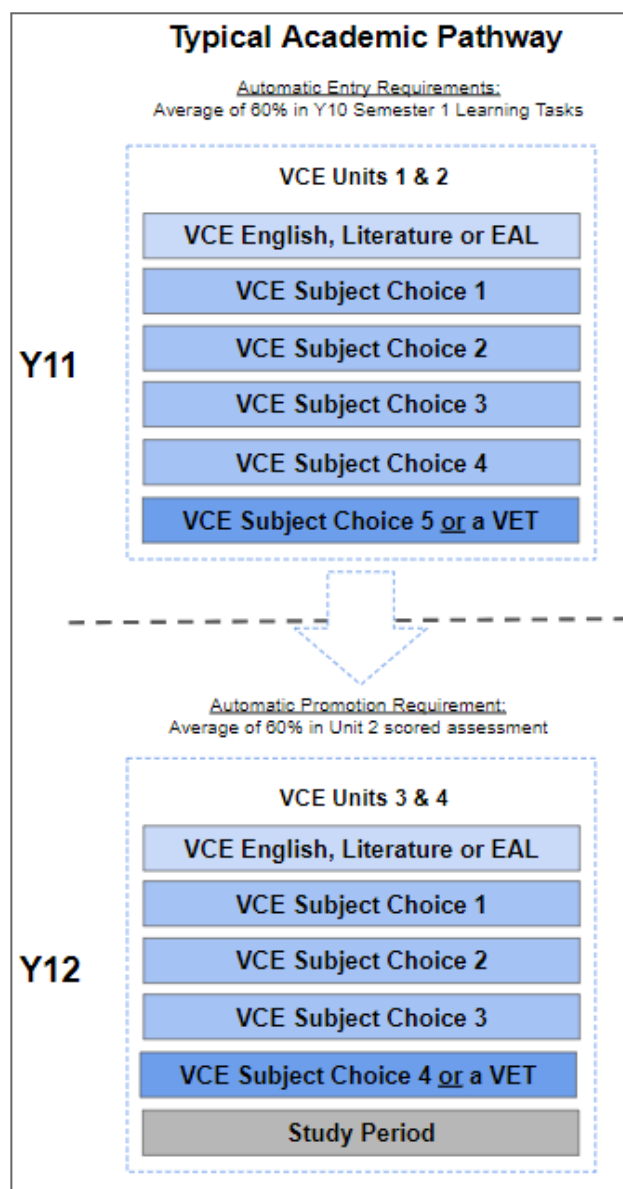
Our VCE VET Coordinator is Mrs Chrissy Collins.

Features of VCE VET subjects

- It is an accredited program (usually over two years).
- It enables students to complete a nationally recognised vocational qualification (e.g. Certificate II in Hospitality)
- It allows students to go directly into employment or receive credit towards further studies.
- It focuses on students developing industry specific and workplace skills.
- It is a vocationally oriented school program designed to meet the needs of industry.
- VET fees depend on the program and the materials students are required to use.
- VET units contribute to VCE. Some 'Scored' VET programs include Year 12 exams, and can contribute towards a student's ATAR.

Choosing a VCE VET subject as part of the Academic Pathway

If a student decides to do a VET as part of the Academic Pathway, it must run on a Wednesday afternoon. This ensures it doesn't clash with a student's other subjects.



Assessment of student performance

In order to award a student an S (Satisfactory Completion) for a VCE Unit, a teacher needs to be confident the student has developed a basic understanding of the key knowledge and skills in the study design.

They make this judgement by considering the following:

1. Attendance
VCAA expects a student to participate in 50 hours of face-to-face learning per VCE Unit. If a student's THS attendance is above 90% they automatically achieve this. If their attendance drops below 90% the teacher may not be confident to award an 'S'
2. Coursework
Teachers can assess students' understanding using their day-to-day contributions and coursework. If a student completes all the assigned coursework tasks to a high standard the teacher will be able to award an S. If a teacher has any concerns about the quality of coursework, they will rely on assessments for authentication.
3. Assessments (SACs and SATs)
Some outcomes require a specific task to be completed to a good standard in order for an S to be awarded. Otherwise, SACs give students a second opportunity to demonstrate their basic understanding. If a student can't demonstrate a basic understanding of the key knowledge and skills in their coursework or in a SAC, their teacher cannot award an S for that outcome.

Each unit of study is typically made up of separate outcomes, all of which must be passed for an S to be awarded. For a student to meet the requirements of each outcome, they must satisfactorily complete all coursework by the end of that outcome. This is usually when a SAC is scheduled.

Students and families will be informed by their teacher or subschool via Compass should a student be at risk of not meeting coursework requirements. Students who have not met the requirements for an outcome by the date of the associated SAC will receive a 'Not Satisfactory' for the whole unit. This may impact their eligibility for a VCE Certificate.

Our subschool and wellbeing teams remain dedicated to supporting all students and are able to approve extensions in exceptional circumstances, given sufficient notice. If you have any questions please contact either Tom Ding (Head of Senior School) or Paul Mameghan (Assistant Principal).

Authentication

In order to be able to assess a student's understanding of the key knowledge and skills in the study design, teachers need to be confident that their work is their own.

The measures teachers use to authenticate work vary from subject to subject and task to task, but the requirements will always be clearly communicated to students.

Coursework

Teachers may insist that a fraction of coursework is completed in class or under supervision. They may also ask students to explain their work to assess their understanding.

Timed SACs

Assessments completed under timed conditions are run using the same rules as VCE exams, unless students are told otherwise. Students must work individually and in silence. Students who miss a SAC without making prior arrangements must provide a medical certificate in order to have an opportunity to resit the assessment.

Drafted SACs/SATs

Assessed tasks that are completed over a period of time (e.g. an essay or a folio) must also be authenticated. In these situations, a teacher will arrange mandatory 'milestones' that must be completed if the work is to be accepted. It is not acceptable to miss the milestones and hand in a final submission at the last moment.

If a student is in any doubt as to the authentication requirements for a piece of work, they must ask their teacher.

Acceptable Assistance

According to the VCAA, a student must not receive undue assistance from another person, including their teacher, in the preparation and submission of work.

Acceptable levels of assistance include:

- the incorporation of ideas or material derived from other sources (for example, by reading, viewing or note taking), but which have been transformed by the student and used in a new context
- prompting and general advice from another person or source, which leads to refinements and/or self-correction

Unacceptable forms of assistance include:

- use of or copying another person's work or other resources without acknowledgement
- use of or copying sample answers
- corrections or improvements made or dictated by another person,

It is fine for a student to help their friends verbally, by giving them 'prompts or general advice', but they should never give another student direct access to their work.

Suspected 'authentication breaches' will result in an investigation. Penalties may involve all students needing to repeat the task, a score of zero being awarded for that assessment, or an N being awarded for the entire outcome.

Student holidays during school time

If you choose to take your child away during school time, teachers may not be able to provide work depending on the curriculum content being taught at the time. Your child's assessment for that semester will reflect the work they have undertaken whilst at school and in negotiation with the teacher. As a parent of VCE students, please be aware of the VCAA guidelines for attendance and requirements. If you have any concerns with this please contact the subject teacher.

Key Learning Area Leaders

If you have any queries regarding subject specific information, please contact the appropriate KLA leader. Alternatively contact the sub-school leader.

English	Robin Garden
Maths	Diana Walder
Science & Digital Technologies	Lisa Pieropan
Humanities	Rick Manning
Performing Arts	Bec Perkin
Health & PE	Trent Morison
Visual Arts & Design	Sheraz Salama
Food Studies	Chrissy Collins
Languages	Max Tosi

Subject costs

Please note that this is an approximate costing of the subjects, including essential excursions where applicable. Final costs will be published later this year.

KLA	Subject	Cost
English	English/EAL 1+2	\$30
	English/EAL 3+4	\$30
	Literature 1+2	\$30
	Literature 3+4	\$30
Health & PE	Health & Human Dev. 1+2	\$30
	Health & Human Dev. 3+4	\$50
	Physical Education 1+2	\$30
	Physical Education 3+4	\$50
	VET Sport & Recreation 1+2	\$100
Humanities	Accounting 1+2	\$30
	Accounting 3+4	\$30
	Business Management 1+2	\$30
	Business Management 3+4	\$30
	Geography Unit 1+2	\$30
	Geography Unit 3+4	\$30
	History 1+2	\$30
	History (Revolutions) 3+4	\$50
	Legal Studies 1+2	\$30
	Legal Studies 3+4	\$30
	VET Business 1+2	\$100
	Maths	Foundation Mathematics 1+2
General Mathematics 1+2		\$30
General Mathematics 3+4		\$30
Mathematical Methods 1+2		\$30
Mathematical Methods 3+4		\$30
Specialist Mathematics 1+2		\$30
Specialist Mathematics 3+4		\$30
Science		Biology 1+2
	Biology 3+4	\$30
	Chemistry 1+2	\$30
	Chemistry 3+4	\$30
	Physics 1+2	\$30
	Physics 3+4	\$30
	Psychology 1+2	\$30
	Psychology 3+4	\$30
Technologies	VET Cookery 1+2 Includes knife set and chef uniform	\$600
	VET Cookery 3+4 Additional \$150 if knife set and chef uniform required	\$450
	Arts	Art Creative Practice 1+2
Art Creative Practice 3+4		\$125
Media 1+2		\$50
Media 3+4		\$50
Music Performance 1+2		\$60
Music Performance 3+4		\$60
Theatre Studies 1+2		\$80
Theatre Studies 3+4		\$80
Visual Comm. Design 1+2		\$80
Visual Comm. Design 3+4		\$80
VCE VM	Year 11 - Literacy, Numeracy, Work-related skills, Personal Development, VET Business	\$300
	Year 12 - Literacy, Numeracy, Work-related skills, Personal Development.	\$150

ENGLISH

English is a compulsory study in VCE unless English as an Additional Language or Literature is used as an alternative. To attain the VCE, a student must successfully complete three out of the four units of English, English as an Additional Language or Literature with Units 3 and 4 completed sequentially and successfully in the same year.

English is concerned with enhancing a student's communication skills through the modes of reading, writing and oral communication.

► ENGLISH

Unit 1+2: Students engage in reading and viewing texts with a focus on personal connections with the story. They discuss and clarify the ideas and values presented by authors through their evocations of character, setting and plot, and through investigations of the point of view and/or the voice of the text. Students are provided with opportunities to practise and extend their writing about texts. They are given time and support to extend their writing through reflection, editing and feedback.

Students engage with and develop an understanding of effective and cohesive writing. They apply, extend and challenge their understanding and use of imaginative, persuasive and informative text through a growing awareness of situated contexts, stated purposes and audience.

Students develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing, to further open possible meanings in a text, and to extend their writing in response to text. Students will develop their skills from Unit 1 through an exploration of a different text type from that studied in Unit 1.

Students consider the way arguments are developed and delivered in many forms of media. They explore the structure of a range of texts, including their contentions, sequence of arguments, use of supporting evidence and persuasive strategies. They closely examine the language and the visuals employed by the author, and offer analysis of the intended effect on the audience. Students apply their knowledge of argument to create a point of view text for oral presentation.

Unit 3+4: The foci of these units are reading and responding both orally and in writing form, to a range of texts.

Students analyse how authors use language to create meaning, and consider the many ways in which texts can be interpreted.

Students develop competence in creating written texts by exploring ideas suggested in their reading of the selected texts and further work is done to extend student responses in analytical and creative forms.

Students compare a pair of texts and explore their key ideas and features. In response, students write an informed analysis on how the chosen authors depict these ideas.

Students also practise analysing persuasive texts and create oral presentations designed to position an audience.

► LITERATURE

Post VCE Pathways: The valuable critical and analytical skills learnt can lead to careers in law, public service, publishing, editing, directing, writing and acting.

Unit 1+2: Students consider how language, structure and stylistic choices are used in different literary forms and types of text. They consider both print and non-print texts, reflecting on the contribution of form and style to meaning. Students reflect on the degree to which points of view, experiences and contexts shape their own and others' interpretations of text.

Students closely examine the literary forms, features and language of texts. They begin to identify and explore textual details, including language and features, to develop a close analysis response to a text.

Students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Students explore texts from a selected movement or genre, identifying and examining attributes, patterns and similarities that locate each text within that grouping. Students engage with the ideas and concerns shared by the texts and they experiment with the assumptions and representations embedded in the texts.

Students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples.

Students focus on a text and its historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text.

Students explore a text to understand its point of view and what it reflects or comments on. They identify the language and the representations in the text that reflect the specific time period and/or culture, its ideas and concepts.

Students develop the ability to analyse language closely, recognising that words have historical and cultural import.

Unit 3+4: Students focus on how the form of a text contributes to its meaning. Students explore the form of a set text by constructing a close analysis of that text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaptation.

Students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text. Students develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language.

Students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. Students develop an understanding of the various ways in which authors craft texts. They reflect critically on the literary form, features and language of a text, and discuss their own responses as they relate to the text, including the purpose and context of their creations.

Students focus on a detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the ways specific passages in a text contribute to their overall understanding of the whole text. Students consider literary forms, features and language, and the views and values of the text. They write expressively to develop a close analysis, using detailed references to the text.

English as an Additional Language (EAL) is available for eligible students, learning alongside mainstream English students.

ARTS

► ART CREATIVE PRACTICE

Art is an integral part of life. Making and understanding artworks empowers you to communicate and interpret personal experiences, ideas, cultural values, beliefs and viewpoints on experiences and issues in historical and contemporary society. In this course you set the rules of your inquiry to make and experiment with multiple materials, techniques and processes. You will learn how to be innovative, to solve problems and build your skills in creative and critical thinking. You will work independently and collaboratively to create and convey meaning through art making.

Unit 1+2: Students will explore ideas using The Creative Practice by applying Interpretive Lenses that analyse the Structural, Personal, and Cultural dimensions of their own artworks. Through these lenses, students will use critical and creative thinking to analyse artworks by a range of historical and contemporary artists. Students will consider their connection to artworks, and how their communication of ideas and presentation of artworks challenge, shape and influence audience perspectives. Students will explore a range of artforms, materials, techniques and processes to develop a body of experimental work in response to their inquiry. Students will create a portfolio of work in photography, ceramics, painting, drawing and mixed media to provide them with a well rounded scope to explore and refine their skills in art making.

Unit 3+4: Throughout Unit 3, students develop an inquiry based body of work inspired by research that examines the practice of an artist of their choice. They will document their creative process to explore and develop ideas, and investigate and experiment with art forms of their choice. They will apply the Interpretive Lenses to analyse the work of established artists, in addition to their own creative practice. By doing so they will build their visual language skills to be able to investigate, create and communicate ideas or issues explored in artworks and their art practice. In Unit 4 students continue to build on personal ideas and themes from Unit 3 to develop, critique, evaluate, refine and resolve a new body of work. Students continue to employ the use of the Interpretive Lenses to analyse the work of artists, their own works and their peers. They explore and compare artworks made in historical and cultural contexts. Students will critically reflect on different artists' practices and document their creative process in their folio working towards an exhibition of their final artwork/s.

► INSTRUMENTAL MUSIC

Extracurricular instrumental lessons run outside of normal class time and do not contribute to gaining a VCE certificate.

Students explore the technical, expressive and creative capabilities of their primary instrument in conjunction with the study of VCE Music Performance or as an extracurricular activity. They work collaboratively and independently across a wide range of styles and in various ensembles to build on and apply their understanding of melodic, harmonic and rhythmic concepts. This directly links to the study of compositional, historical and cultural elements, as well as an in-depth analysis of performance repertoire. Students receive instrumental lessons from a specialist teacher on their instrument and participate in a range of performances including a Music Tour as part of their ongoing assessment and enjoyment.

► MEDIA

Unit 1+2: The purpose of Unit 1 is to enable students to develop an understanding of the relationship between the media, technology and the representations present in media forms. The unit involves the study of the implications of media technology for the individual 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, and the creative and cultural implications of new media technologies.

In Unit 2 students develop their understanding of specialist production stages and roles within the collaborative organisation of media production. Students develop practical skills through undertaking assigned roles during their participation in specific stages of a media production and analyse issues concerning the stages and roles in the media production process. 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.

► MUSIC PERFORMANCE

Unit 1-4: Students explore the technical, expressive and creative capabilities of their primary instrument, in conjunction with the VCE Music Study Design, preparing them for two end-of-semester performances (*Group and/or Solo*). They work collaboratively and independently across a wide

range of coursework tasks and ensembles to build on and apply their understanding of melodic, harmonic and rhythmic concepts through practical and analytical means. This is demonstrated through large and small ensemble performances, notation, recordings, improvisation / composition and presentation skills.

Students develop specific aural and theory skills in both a practical and formal setting to continue to improve their musicianship with an emphasis on the two end-of-semester examinations. They mainly focus on post-1980 Australian music to develop critical listening skills, both verbally and in written form, using accurate terminology.

Prerequisites: students wishing to undertake Music Performance are recommended to have undertaken at least two years of instrumental music tuition on their chosen instrument. Students are strongly advised to be under the tuition of an instrumental teacher and are also recommended to have their own instrument available to them during class-time and at home. If this is not possible, the school will endeavour to arrange an appropriate solution.

► THEATRE STUDIES

In VCE Theatre Studies students interpret playscripts and produce theatre for audiences. Through practical and theoretical engagement with playscripts from the pre-modern era to the present day, students gain an insight into the history and rich possibilities of playscript-based theatrical production and develop understanding and appreciation of the role and place of the practitioner in theatre. Theatre practitioners develop, create and craft productions through research, contextualisation, visualisation and the application of stagecraft. The study covers roles in theatre practice including actor, director, designer, theatre technologist and theatre administrator/manager. Throughout the study, students work with playscripts in both their written form and in performance, studying various areas of stagecraft that can be used to interpret these playscripts. Students study the contexts, that is, the time, places and cultures, of playscripts, as well as their language and theatrical possibilities. They explore ways that meaning can be constructed and conveyed through theatrical performance. They consider the audiences who will engage with their productions and incorporate knowledge and understanding of audience culture, demographic and sensibilities in their interpretations. Students apply stagecraft to collaboratively and individually interpret playscripts and their theatrical possibilities. Through study of playscripts, contribution to the production of plays, and the application of stagecraft, students

develop knowledge and understanding of theatre and its practices.

Unit 1+2: Unit 1 focuses on the application of acting and other stagecraft in relation to theatrical styles of the pre-modern era. Students work with playscripts from the pre-modern era of theatre, focusing on works created up to 1920 in both their written form and in performance. They also study theatrical and performance analysis and apply these skills to the analysis of a play in performance.

In Unit 2 students study theatrical styles and stagecraft through working with playscripts in both their written form and in performance with an emphasis on the application of stagecraft. Students work with playscripts from the modern era, focusing on works from the 1920s to the present. They study theatrical analysis and production evaluation and apply these skills to the analysis of a play in performance.

Unit 3+4: In Unit 3 students develop an interpretation of a playscript through the stages of the theatrical production process: planning, development and presentation. Students specialise in two areas of stagecraft, working collaboratively in order to realise the production of a playscript. They use knowledge they develop from this experience to analyse the ways stagecraft can be used to interpret previously unseen playscript excerpts. Students also attend a performance selected from the prescribed VCE Theatre Studies Unit 3 Playlist published annually in the *VCAA Bulletin VCE, VCAL and VET*, and analyse and evaluate the interpretation of the playscript in the performance.

In Unit 4 students study a scene and associated monologue from the *Theatre Studies Stagecraft Examination Specifications* published annually by the Victorian Curriculum and Assessment Authority, and develop a theatrical treatment that includes the creation of a character by an actor, stagecraft possibilities, and appropriate research. Students interpret a monologue from within a specified scene using selected areas of stagecraft to realise their interpretation. Students' work for Outcomes 1 and 2 is supported through analysis of a performance they attend selected from the prescribed VCE Theatre Studies Unit 4 Playlist published annually in the *VCAA Bulletin VCE, VCAL and VET*.

► VISUAL COMMUNICATION DESIGN

VCE Visual Communication Design allows students to examine and explore through a practical folio the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Designers create and communicate through visual

means to influence everyday life for individuals, communities and societies. Students will complete a practical folio and written component for each unit.

If you are interested in career pathways such as; architecture, advertising, animation, costume design, exhibition design, fashion design, furniture design, game design, graphic design, illustration, industrial design, interior design, landscape design, product design, textile design, visual merchandising and web design you should consider Visual Communication Design as the folio produced throughout Unit 3+4 can assist with entry into tertiary courses.

Unit 1+2: Students focus on using visual language to communicate messages, ideas and concepts. This involves gaining and applying design thinking and drawing skills to make messages, ideas and concepts visible and tangible. Students will explore the relationship between design elements and design principles, the historical significance of design and drawing methods to create visual communications. Students will use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the fields of environmental and industrial design. They will also investigate how typography and imagery are used in visual communication design. Students develop an understanding of the design process developing their thinking about approaches to solving design problems and presenting ideas.

Unit 3+4: Students gain an understanding of the design 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 and materials, and the application of design elements and design principles, can create effective visual communications for specific audiences and purposes. Students also establish their own design brief for a client and apply design thinking throughout the design process. Students use observational and visualisation drawings to generate a wide range of design ideas and apply design thinking strategies to organise and evaluate their ideas. Students then focus 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 communication needs.

HUMANITIES

► ACCOUNTING

Accounting introduces students to recording and reporting for a small business. These are real-life skills which are useful for individual financial literacy, employment in business and management. Anyone wanting to run their own business in the future would benefit from this subject.

Unit 1+2: In Unit 1 students explore the establishment of a business and the role of accounting in the determination of business success or failure. In this, it considers the importance of accounting information to stakeholders. Students will analyse, interpret and evaluate the performance of the business using financial and non-financial information. They use these evaluations to make recommendations regarding the suitability of a business as an investment. Students will record financial data and prepare reports for service businesses owned by sole proprietors. In Unit 2 students develop their knowledge of the accounting process for sole proprietors operating a trading business, with a focus on inventory, accounts receivable, accounts payable and non-current assets. Students use manual processes and ICT, including spreadsheets, to prepare historical and budgeted accounting reports. Students analyse and evaluate the performance of the business relating to inventory, accounts receivable, accounts payable and non-current assets. They use relevant financial and other information to predict, budget and compare the potential effects of alternative strategies on the performance of the business. Using these evaluations, students develop and suggest to the owner strategies to improve business performance.

Unit 3+4: In Unit 3 students will focus on financial accounting for a trading business owned by a sole proprietor and highlights 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 and the perpetual method of inventory recording. Students develop their understanding of the accounting processes for recording and reporting and consider the effect of decisions made on the performance of the business. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve the performance of the business.

In Unit 4 students will further develop their understanding of accounting for a trading business owned by a sole proprietor and 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 and the

perpetual method of inventory recording. Both manual methods and ICT are used to record and report. Students extend their understanding of the recording and reporting process with the inclusion of balance day adjustments and alternative depreciation methods. They investigate both the role and importance of budgeting in decision-making for a business. They analyse and interpret accounting reports and graphical representations to evaluate the performance of a business. From this evaluation, students suggest strategies to business owners to improve business performance.

► BUSINESS MANAGEMENT

Business Management examines the ways in which managers can use an organisation's resources to achieve the objectives of the enterprise. The study recognises the range of management theories and exposes students to real business scenarios.

Unit 1+2: In Unit 1 students focus on businesses of all sizes as major contributors to the economic and social well being of a nation. Students explore business creation, from inception to the establishment of the enterprise. The success of this process establishes the basis of wealth creation which underpins the standard of living in Australia. Furthermore, students explore the factors affecting business enterprises from the environments within which businesses operate.

In Unit 2 students focus upon complying with legal requirements to create a business, as well as making decisions about how best to establish a system of financial record keeping, staff the business and establish a customer base. Students investigate the essential features of effective marketing and consider the best way to meet the needs of the business in terms of human resources, public relations strategies and methods of meeting corporate social responsibility obligations.

Unit 3+4: In Unit 3 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. Students consider corporate culture, management styles, management skills, operations, human resources and the relationship between each of these.

In Unit 4 students explore the constant pressure under which business must adapt and change to meet their objectives. 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. Further, students investigate the importance of leadership in change management using a contemporary business case study from the past four years.

► GEOGRAPHY

Unit 1+2: Unit 1 Geography examines hazards and disasters. Students look at the different types of hazards (biological, geological, hydro-meteorological and technological) and the criteria required to consider a hazard event a disaster. Two hazard types are examined in detail and specific case studies of disaster events are considered. Students also examine the responses to various disaster events and how these guide disaster response guidelines. We visit the town of Kinglake for our fieldwork excursion and consider how it is recovering from the 2009 Black Saturday bushfires.

Unit 2 Geography examines tourism and the impacts of tourism on local communities. Students consider the different types of tourism and the numbers and destinations of Australian travellers. Four tourism case studies (two domestic, two international) are examined and the positive and negative environmental and social impacts of tourism in these key destinations are considered. We undertake fieldwork activities at a significant tourism attraction in Victoria - this may involve an overnight stay.

Unit 3+4: Unit 3 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, bare lands 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 is altered by many processes such as geomorphological events, plant succession and climate change.

Students investigate two major processes that are changing land cover in many regions of the world: melting glaciers and ice sheets, and deforestation.

They investigate the distribution and causes of the two processes. They select one location for each of the 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.

People have modified land cover to produce a range of land uses to satisfy needs such as housing,

resource provision, communication and recreation. Land use change is a characteristic of both urban and rural environments and occurs at both spatial and temporal scales.

At a local scale students investigate land use change using appropriate fieldwork techniques and secondary sources. They investigate the processes of change, the reasons for change and the impacts of change.

In Unit 4, 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.

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 environmental, economic, social, and cultural 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 through 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 environmental, economic, social, and cultural conditions. Many factors influence population change, including the impact of government policies, economic conditions, wars and revolution, political boundary changes and hazard events.

Students investigate the interconnections between the reasons for population change. They evaluate strategies developed in response to population issues and challenges, in both a growing population trend of one country and an ageing population trend of another country, in different parts of the world.

► HISTORY

Students analyse the way history is represented in film, cartoons, posters, paintings and written documents. Students improve their writing, analysis,

research and reporting skills. History tries to make meaning of the past and answer questions like: Why is the world like it is? What are the forces at work behind significant social, cultural and political change?

Unit 1+2: In Unit 1, students investigate the nature of social, political, economic and cultural change in the later part of the 19th century and the first half of the 20th century. Students explore the challenges to existing empires, which continued to exert their powers as they competed for new territories and resources and the contact and conflict this competition provoked. Students then study the changes that occurred in the aftermath of WWI that were to have an impact for decades to come: the post-war treaties, new political and social movements and ideologies such as fascism. Using the example of Weimar and Nazi Germany, students analyse how the power of the state was used to impose controls on the way people lived and to silence criticism.

In Unit 2 of Modern History, students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements. The competing ideologies of democracy and communism are examined. The period also saw challenge and change to the established order. The rise of social movements, such as the civil rights movement, are examined and students analyse the impact of challenges to existing values and traditions. Finally, students examine the historical origins and nature of the conflict which transformed Afghanistan in the second half of the century.

In these units students construct arguments using primary sources as evidence and evaluate the extent to which new movements and ideologies brought change to the lives of people. They consider how different historical perspectives give an insight into the continuity and change experienced by people in this era. Students also evaluate historical interpretations about the causes and consequences of these changes.

Unit 3+4: History (Revolutions) students investigate the significant historical causes and consequences of political revolution. Students analyse the interplay of ideas, events, individuals and popular movements which cause revolution. They also study the consequences of revolution on the political and social structures of the post-revolutionary society and assess the challenges to consolidating new regimes which can result in a compromise of revolutionary ideals.

In these units students develop an understanding of the causes and consequences in the revolutionary narrative and construct arguments 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 also evaluate historical interpretations about the causes and consequences of revolution and the effects of change instigated by the new order. At Thornbury High School, students study the American Revolution and the Russian Revolution.

► LEGAL STUDIES

Students will gain a general understanding of how the law operates and how it affects the community and us. Students will get to see the law in operation through visits to the courts and prisons, keeping up to date with changes to the law via the media, and from guest speakers. Students will also get to appreciate how the law affects them directly.

Unit 1+2: Students develop an understanding of legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria. Students investigate key concepts of criminal law and civil law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. In doing so, students develop an appreciation of the way in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused, and the liability of a party in a civil dispute.

Students undertake a detailed investigation of two criminal cases and two civil cases to form a judgement on the ability of sanctions and remedies to achieve the principles of justice. Students develop an understanding of the way rights are protected in Australia and in one other country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

Unit 3+4: Students examine the methods and institutions in the justice system and consider their appropriateness in determining criminal cases and resolving civil disputes. Students consider the Victorian court hierarchy, as well as other Victorian legal institutions and bodies available to assist with cases. Students explore matters such as the rights available to victims in the criminal justice system, role of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purpose. Students investigate the extent to

which the principles of justice are upheld in the justice system. They discuss recent and recommended reforms to enhance the ability of the justice system to achieve the principles of justice.

Students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, protects the Australian people through structures that act as a check on parliament in law-making. Students develop an understanding of the significance of the High Court in protecting and interpreting the Australian Constitution. They investigate parliament and the courts, and the relationship between the two in law-making, and consider the roles of the individual, the media and law reform bodies in influencing law reform. Students apply legal reasoning and information to actual scenarios.

► VET BUSINESS

Students will develop an understanding of business fundamentals within the Australian context and will assist students to gain employment opportunities in an entry level administrative or customer service role.

Students develop a broad range of skills and knowledge to work in a variety of work contexts using discretion, judgement and relevant theoretical knowledge. They will gain an entry level qualification which provides students with the knowledge and skills to enhance their employment prospects in a business or office environment.

The entry level qualification (Certificate III) will be awarded at the end of the two year program.

Unit 1+2:

- Assist with maintain workplace safety
- Use inclusive work practices
- Design and produce spreadsheets
- Create electronic presentations
- Use digital technologies to communicate in a work environment
- Support personal wellbeing in the workplace
- Apply critical thinking skills in a team environment
- Participate in sustainable work practices.

Unit 3+4:

- Organise personal work priorities
- Organise workplace information
- Design and produce business documents
- Engage in workplace communication
- Deliver and monitor a service to customers.

LANGUAGES

► ITALIAN

Unit 1+2: In Unit 1 students develop an understanding of the language and culture/s of Italian-speaking communities. Students access and share useful information through Italian and consolidate and extend vocabulary and grammar knowledge and language skills.

In Unit 2 students develop an understanding of aspects of language and culture. Students analyse visual, spoken and written texts. They access and share useful information

Unit 3+4: In Unit 3 students investigate the way Italian speakers interpret and express ideas, and negotiate and persuade in Italian. Students interpret information, inform others, and reflect upon and develop persuasive arguments. They consolidate and extend vocabulary and grammar knowledge and language skills.

Students consider the influence of language and culture in shaping meaning and reflect on the practices, products and perspectives of the cultures of Italian-speaking communities. They reflect on how knowledge of Italian and Italian-speaking communities can be applied in a range of contexts and endeavours such as further study, travel, business or community involvement.

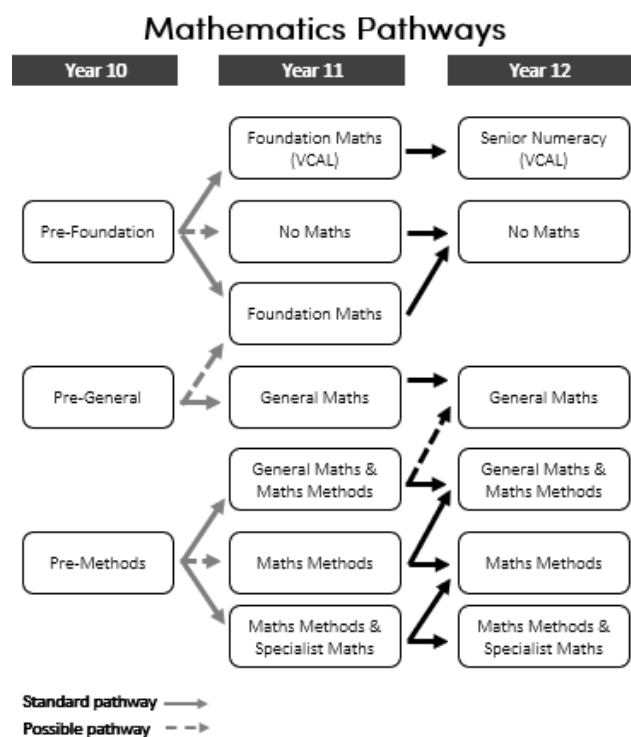
In Unit 4 students investigate aspects of culture/ Students build on their knowledge of Italian-speaking communities, considering cultural perspectives and language and explaining personal observations.

Students consolidate and extend vocabulary, grammar knowledge and language skills to investigate the topics through Italian. They identify and reflect on cultural products or practices that provide insights into Italian-speaking communities. Cultural products or practices can be drawn from a diverse range of texts, activities and creations. Students reflect on the ways culture, place and time influence values, attitudes and behaviours. They consider how knowledge of more than one culture can influence the ways individuals relate to each other and function in the world.

MATHEMATICS

Mathematics provides both a framework for thinking and a means of symbolic communication that is powerful, logical, concise and precise. It also provides a means by which people can understand and manage their environment. VCE Mathematics is designed to promote students' awareness of the importance of mathematics in everyday life in a technological society, and confidence in making effective use of mathematical ideas, techniques and processes. It is also designed to provide access to worthwhile and challenging mathematical learning in a way which takes into account the needs and aspirations of a wide range of students.

The flowchart below shows some of the many possible mathematics pathways from year 10 through to the end of year 12.



► FOUNDATION MATHEMATICS

Unit 1+2: Foundation Mathematics provides for the continuing mathematical development of students entering VCE needing mathematical skills to support their other studies, and who do not intend to undertake Unit 3+4 studies in VCE Mathematics the following year. For VCAL students, it provides two units towards their Intermediate Certificate.

In Foundation Mathematics there is a strong emphasis on using mathematics in practical contexts relating to everyday life, personal work and study. Students are encouraged to use appropriate technology in all areas of their study, and require a scientific calculator.

The areas of study for these units are Space & Shape, Patterns in Number, Handling Data and Measurement & Design.

Please note: Foundation Mathematics terminates at the end of Year 11, and does not lead into any VCE Unit 3+4 mathematics study.

► GENERAL MATHEMATICS

Unit 1+2: This course is designed for students who have demonstrated a sound understanding of year 10 Mathematics. Topics studied include Practical Arithmetic, Linear Equations & Relations, Statistics, Financial Arithmetic, Matrices and Graphs & Networks. Across all topics, students are expected to be able to apply techniques, routines and processes involving arithmetic, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations and graphs with and without the use of technology. Students must be able to demonstrate their skills in using the CAS Calculator (Casio ClassPad) to produce results and carry out analysis.

This subject is especially recommended for students who are unsure of their future pathway.

Prerequisite: Year 10 Pre-General Mathematics or Year 10 Pre-Methods Mathematics

Unit 3+4: General Mathematics follows on from General Mathematics Unit 1+2. The areas of study are Data analysis (40%), Recursion & Financial Modelling (20%), Matrices (20%) and Networks & Decision Mathematics (20%). In undertaking these units, students are expected to be able to apply techniques, routines and processes involving arithmetic, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, and graphs, with and without the use of technology. Students must be able to demonstrate their skills in using the CAS Calculator (Casio ClassPad) to produce results and carry out analysis.

Prerequisite: General Mathematics Unit 1+2 or Mathematical Methods Unit 1+2

► MATHEMATICAL METHODS

Unit 1+2: Mathematical Methods Unit 1+2 provides 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. The areas of study are Functions & Graphs, Algebra, Calculus and Probability & Statistics. 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. Students must be able to demonstrate their skills in using the CAS Calculator (Casio ClassPad) to produce results and carry out analysis.

Prerequisite: Year 10 Pre-Methods Mathematics

Unit 3+4: Mathematical Methods Unit 3+4 consists of the areas of study Functions & Graphs, Algebra, Calculus and Probability & 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, 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.

Prerequisite: Mathematical Methods Unit 1+2

► SPECIALIST MATHEMATICS

Unit 1+2: Specialist Mathematics Unit 1+2 provides 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. The areas of study are Algebra & Structure, Arithmetic & Number, Discrete Mathematics, Geometry, Measurement & 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, real and complex 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, and students must be able to demonstrate their skills in using the CAS Calculator (Casio ClassPad) to produce results and carry out analysis.

Prerequisite: Year 10 Pre-Methods Mathematics
Co-requisite: Mathematical Methods Unit 1+2

Unit 3+4: Specialist Mathematics Units 3+4 consist of the areas of study Functions & Graphs, Algebra, Calculus, Vectors, Mechanics and Probability & Statistics. There is a focus on reasoning and applications across a range of modelling contexts. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational, real and complex arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation, anti-differentiation and 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, and students must be able to demonstrate their skills in using the CAS Calculator (Casio ClassPad) to produce results and carry out analysis.

This subject provides background for students to study Engineering, Mathematics or Physics at a tertiary level.

Prerequisite: Mathematical Methods Unit 1+2 and Specialist Mathematics Unit 1+2.
Co-requisite: Mathematics Methods Unit 3+4.

HEALTH & PHYSICAL EDUCATION

► HEALTH & HUMAN DEVELOPMENT

Unit 1+2: In Unit 1 students identify perspectives and priorities relating to health and wellbeing, and enquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islanders. Students look at multiple dimensions of health and wellbeing, the complex interplay of influences of health and wellbeing and the indicators used to measure and evaluate health status. With a focus on youth, students consider their own health as individuals and as a cohort. They build health literacy through interpreting and using data, through investigating the role of food, and through extended inquiry into one youth health and focus area.

Unit 2 investigates transitions in health and wellbeing, and development, from lifespan and societal perspectives. Students look at changes and expectations that are part of the progression from youth to adulthood. They explore adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes. Students enquire into the Australian healthcare system and extend their capacity to access and analyse health information. They investigate the challenges and opportunities presented by digital media and health technologies, and consider issues surrounding the use of health data and access to quality health care.

Unit 3+4: In Unit 3 students analyse the health status of Australia's population, together with variations in health status of population groups within Australia and discuss the role of approaches to overall health and wellbeing in improving Australia's health status. Students will also discuss and analyse approaches to improve indigenous health and health promotion initiatives, as well as analyse Australia's health system and the different roles of government and non-government organisations in promoting health.

In Unit 4 students take a global perspective on achieving sustainable improvements in health and human development. Students build understanding of health in a global context through examining changes in burden of disease over time as well as sustainability and human development together with global action to improve health and wellbeing and human development, focusing on the United Nations' Sustainable Development Goals (SDGs) and the work of the World Health Organization (WHO).

► PHYSICAL EDUCATION

Unit 1+2: In Unit 1 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.

During Unit 2 students develop 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.

Unit 3+4: Unit 3 introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport. Students investigate the three energy systems in relation to performance in physical activity, sport and exercise. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

In Unit 4, students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity at an individual, club and elite level. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods.

► VET SPORT AND RECREATION

Students will develop a comprehensive skill set for employment in the Sport & Recreation industry. This subject provides students with the opportunity to acquire and develop skills, knowledge and confidence to work in the areas of sport and outdoor recreation related industries. Leadership, organisational and specialist activity skills will be developed through the units of competency undertaken. The entry level qualification (Certificate III) will be awarded at the end of the two year program.

Unit 1+2:

- Participate in workplace health and safety
- Assist in conducting recreation sessions
- Minimise environmental impact
- Respond to emergency situations
- Maintain sport, fitness and recreation industry knowledge

Unit 3+4:

- Conduct sport coaching sessions for foundation level participants
- Plan and conduct programs
- Facilitate groups
- Educate user groups
- Participate in OHS hazard identification, risk assessment and risk control

SCIENCE

► BIOLOGY

Unit 1+2: Biology 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. They will learn that all cells are derived from pre-existing cells through the cell cycle and examine the process of DNA replication in both prokaryotic and eukaryotic organisms. 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.

Unit 3+4: Units 3 and 4 Biology focus on the cell as the dynamic system of interacting molecules that define life. Students explore the importance of the structure of plasma membrane in allowing substances to enter and exit the cell. The structure of DNA, importance of enzymes and response by our cells to signalling molecules is investigated along with reactions between antigens and antibodies in relation to pathogens and disease. Applications of biotechnology and manipulation of DNA is also explored.

Students further explore how the Earth has changed over time including relatedness between species and the impact of various events on a population's gene pool. They investigate how changes over time influences evolution by natural selection which leads to the rise of new species. Students 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. They examine the human fossil record and the interrelationships between human biological and cultural evolution.

► CHEMISTRY

Unit 1+2: Unit 1 focuses on the chemical properties of a range of materials from metals and salts to polymers and nanomaterials. The students will explore 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. The students also 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. Throughout the unit students will become familiar with the language of chemistry including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from experiments.

Unit 2 focuses on the study of water and its uniqueness as a chemical. The students explore the physical and chemical properties of water, the reactions that occur in water and various methods of water analysis. The 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 that are used to determine concentrations of different species in water samples, including chemical contaminants.

Unit 3+4: Students explore energy options and the chemical production of materials with reference to efficiencies, renewability and the minimisation of their impact on the environment. They investigate energy transformations, the use of stoichiometry to calculate the amounts of reactants and products involved in combustion reactions, and calculations of the amounts of energy released and their representations. Students explore principles of galvanic cells, fuel cells and electrolytic cells, 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 investigate the structural features, bonding, typical reactions and uses of the major families of organic compounds including those found in food. 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.

► PHYSICS

Unit 1+2: In this unit students examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain energy. Models

used to understand light, thermal energy, radioactivity, nuclear processes and electricity are explored. Students apply these physics ideas to contemporary societal issues: communication, climate change and global warming, medical treatment, electrical home safety and Australian energy needs. In unit 2, 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.

Unit 3+4: Students examine the production of electricity and its delivery to homes. They 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. 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 and consider how developing technologies can challenge existing explanations of the physical world.

Further to this, students explore the use of wave and particle theories to model the properties of light and matter. Students investigate light by using a particle model to explain its behaviour. Students learn to think beyond the concepts experienced in everyday life to study the physical world from a new perspective. A student-designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Unit 3 and Unit 4, and is assessed in Unit 4.

► PSYCHOLOGY

Unit 1+2: Students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. They explore brain plasticity and the influence that brain damage may have on a person's psychological functioning and consider the complex nature of psychological development, including situations where psychological development may not occur as expected. Students also investigate cognitive development and how this changes throughout the lifespan from infancy to old age. Students 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.

Unit 3+4: Students examine 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. They 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 also 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. A student practical investigation related to mental processes and psychological functioning is undertaken in either Unit 3 or Unit 4, or across both Units 3 & 4, and is assessed in Unit 4.

TECHNOLOGIES

► VET COOKERY

This practical course is designed to introduce students to the hospitality industry. Students develop a range of food preparation and cookery skills to prepare food and menu items.

This subject prepares students for work in a variety of hospitality establishments, such as cafes, restaurants, function centres, hotels, clubs and casinos.

The entry level qualification (Certificate III) will be awarded at the end of the two year program.

Unit 1+2:

- Use hygienic practices for food safety
- Participate in safe work practices
- Clean kitchen premises and equipment
- Use food preparation equipment
- Prepare and present simple dishes
- Receive, store and maintain stock
- Prepare dishes using basic methods of cookery
- Interact with customers
- Show social and cultural sensitivity

Unit 3+4:

- Prepare appetisers and salads
- Prepare vegetable, fruit, eggs and farinaceous dishes
- Prepare stocks, sauces and soups
- Work effectively in a commercial kitchen

VOCATIONAL MAJOR (VM)

Students completing VCE VM complete all five subjects listed below, in addition to a chosen VET subject or SBAT.

► LITERACY

Students develop their everyday literacy skills through thinking, listening, speaking, reading, viewing and writing to meet the demands of the workplace, the community, further study and their own life skills, needs and aspirations. Students participate in discussion, exploration and analysis of the purpose, audience and language of text types and content drawn from a range of local and global cultures, forms and genres, including First Nations peoples' knowledge and voices, and different contexts and purposes. They discuss and debate the ways in which values of workplace, community and person are represented in different texts, and present ideas in a thoughtful and reasoned manner.

Unit 1+2: Unit 1 covers Literacy for personal use and understanding and creating digital texts. Unit 2 equips students to understand issues and voices, as well as respond to opinions.

Unit 3+4: Unit 3 teaches students to access and understand informational, organisational and procedural texts. Students also create and respond to organisational, informational or procedural text. Unit 4 has a focus on understanding and engaging with literacy for advocacy, as well as speaking to advise or to advocate.

► NUMERACY

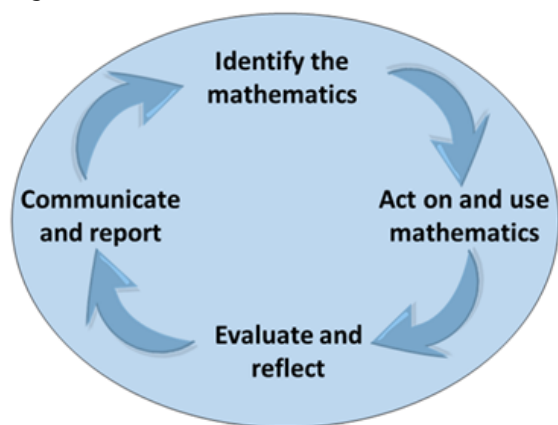
Students develop and enhance their numeracy practices to help them make sense of their personal, public and vocational lives. They develop mathematical skills with consideration of their local, national and global environments and contexts, and an awareness and use of appropriate technologies.

Unit 1+2: Students complete VCE Foundation Mathematics. See page 18.

Unit 3+4: Students extract, evaluate and apply mathematical key knowledge and key, embedded in a range of routine, non-routine, unfamiliar and some specialised contexts. They cover a range of numeracies, including:

- Personal numeracy
- Civic numeracy
- Financial numeracy
- Health numeracy
- Vocational numeracy
- Recreational numeracy

Students also work through the cycle of problem solving:



► PERSONAL DEVELOPMENT SKILLS

Students develop a sense of identity and self-worth, and understand and apply concepts that support individual health and wellbeing. They access, critique, synthesise and communicate reliable information and explain the role of community and the importance of social connectedness. Students practise the rights and responsibilities of belonging to a community and recognise and describe the attributes of effective leaders and teams. They set and work towards the achievement of goals, working both independently and as part of a team to understand and respond to community needs.

Unit 1+2:

Healthy Individuals

- Personal identity and emotional intelligence
- Community health and wellbeing
- Promoting a healthy life

Connecting with the Community

- What is community?
- Community cohesion
- Engaging and supporting community

Unit 3+4:

Leadership and teamwork

- Social awareness and interpersonal skills
- Effective leadership
- effective teamwork

Community project

- Planning a community project
- Implementing a community project
- Evaluating a community project

► WORK-RELATED SKILLS

Students understand and apply concepts and terminology related to the workplace. They explore the complex and rapidly changing world of work and workplace environments and the impact on the

individual. Students learn about the relationship between skills, knowledge, capabilities and the achievement of pathway goals, and develop effective communication skills to enable self-reflection and self-promotion. They apply skills and knowledge in a practical setting.

Unit 1+2:

Careers and learning for the future

- Future Careers
- Presentation of career and education goals

Workplace skills and capabilities

- Skills and capabilities for employment and further education
- Transferable skills and capabilities

Unit 3+4:

Industrial relations, workplace environment and practice

- Workplace wellbeing and personal accountability
- Workplace responsibilities and rights
- Communication and collaboration

Portfolio preparation and presentation

- Portfolio development
- Portfolio presentation

In order to develop 'employability skills,' the Applied Pathway gives students the choice of undertaking a structured workplace learning placement or part-time work. We combine these options with units and modules that help prepare students for work.

► VET BUSINESS

This subject runs in Year 11 only. See page 16 for details of Unit 1+2.