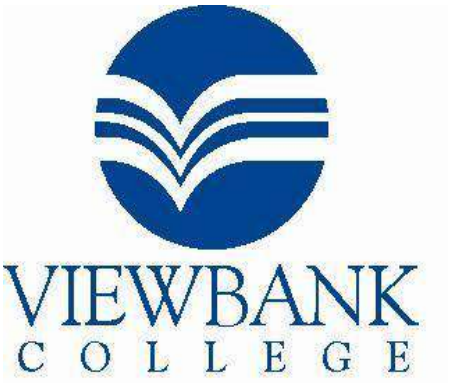

SENIOR SCHOOL SUBJECT HANDBOOK 2020

(updated June 2019)

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Viewbank College is committed to providing a child safe environment where children and young people are safe and feel safe, and their voices are heard about decisions that affect their lives. Particular attention will be paid to the cultural safety of Aboriginal children and children from culturally and/or linguistically diverse backgrounds, as well as the safety of children with a disability.

Principal's Introduction to VCE at Viewbank College

VCE is a great challenge for students in Years 10, 11 and 12 to really test their capacity as learners and establish their best opportunity for achieving quality pathways beyond the College. Viewbank College requires that senior students prioritise time and effort into achieving VCE success.

The purpose of this handbook is to provide students with comprehensive information about the Senior School, including considering their post-secondary future and the variety of subjects Viewbank College offers to students. Students need to carefully plan their courses and make informed decisions about their goals for VCE success.

In terms of considering a study course, the best advice is to choose studies:

- which the student really enjoys;
- in which the student achieves success and already has a sense of learning confidence;
- which enhance the student's special skills or talents; and
- which are prerequisites for future study, apprenticeship or work.

No student should feel alone in their decision-making. After discussions with parents, students can access advice from a variety of people in the College: the Principal, the three Assistant Principals, the VCE Coordinator, the Senior Years Leader, the Years 10, 11 and 12 Level Leaders, and the Careers Counsellors. Each student will be provided with individual course counselling to explore all options.

Viewbank College has an excellent record of success at the VCE level.

We have a teaching staff committed to assisting every student to achieve personal success. However, there is an expectation that students undertaking VCE studies understand that the keys to success are:

- A desire to do one's best
- A commitment to their studies
- Determination and perseverance when things become difficult
- Discipline both at school and at home
- Dedication to their studies and academic achievement
- Establish sound work habits and set priorities for both their College commitments and those beyond the College.

Part-time work, particularly, needs to be reviewed. Too much part-time work does not enable students to get the right balance with their studies. Students need to weigh up the financial gain against success in achieving the pathway they desire for their future careers. VCE is very much about planning for their post-secondary training and beyond.

I wish every student, in Years 10, 11 and 12 undertaking the journey of VCE, to find it an enjoyable learning challenge that results in personal success. Students can expect to be tested academically, and along the journey, may feel tested in their resolve. However, they need to know that the College will support them to achieve their best. It is our wish that when they leave us, they leave as successful learners with fond memories of their VCE years and of their time spent at Viewbank College.

Ms Sharon Grimes
Principal
"Caring for Excellence"

Contents

Year 10 Core & Elective Subjects

CORE		
English*	All students: EA Program students:	English Enhanced English
Mathematics*	Choose 1 of: EA Program Students:	Core Mathematics – Further Core Mathematics – Methods Foundation Mathematics Units 1 & 2 (VCE) General Mathematics Advanced Units 1 & 2 (VCE)
Science	Choose one of:	Atomic Chemistry & Physics^ Biology and Chemistry of Life^ Science^2 (Squared)*
Humanities^	Choose <u>at least</u> 1 Humanities Elective from the selection below.	

*year-long ^semester-based

Choose remaining Electives from the following:

ELECTIVES	
The Arts	Dance
	Drama - Street Theatre
	Media Arts 'Film'
	Media Arts 'Social Media & Design'
	Music Performance
	Studio Art
	Visual Communication Design
Design & Technologies	Digital Technologies
	Emerging Technologies, Systems & Design
	Fashion
	Food Studies
	Industrial Ceramics
	Product Design & Technology (Wood, Metal, Plastic)
English	Literature
	Philosophy
	Writers' Workshop
Health & Physical Education	First Aid and Coaching
	Lifestyle Fitness
	Outdoor Education
	Sports Science
	What the Health? An Introduction to VCE HHD
Humanities	Accounting
	Art History *(History)*
	Degradation and Development *(Geography)*
	Economics and Business
	Get Up! Stand Up! (Movements and Rights in Australian Society – *History*)
	Global Issues
	Legal Studies
	The World at War *(History)*
Languages	German
	Japanese
Mathematics	Elective – Maths Methods
Science	Psychology
VET (external options ONLY)	*Please see the Vocational and Pathways Coordinator for more information*

VCE Units offered

Units 1 & 2		Units 3 & 4
Accounting		Accounting #
Australian & Global Politics		Global Politics
Biology		Biology
Business Management		Business Management
Chemistry		Chemistry *
Computing		Software Development
Drama (not offered in 2020)		Drama
Economics		Economics
English/EAL		English/EAL *
Food Studies		Food Studies
Geography		Geography
Australian & Global Politics		Global Politics
Health & Human Development		Health & Human Development
History: Global Empires		NA
History: Twentieth Century		History: Revolutions
Legal Studies		Legal Studies
Literature		Literature *
Languages German Japanese (Second Language)		Languages German * Japanese * (Second Language)
Mathematics Foundation Mathematics General Mathematics (Further) Mathematical Methods Specialist Mathematics		Mathematics N/A Further Mathematics * Mathematical Methods * Specialist Mathematics *
Media		Media
Music Performance		Music Performance
Philosophy		Philosophy
Physical Education		Physical Education #
Physics		Physics *
PD & T ^: Resistant Materials		PD & T ^: Resistant Materials
PD & T ^: Textiles		PD & T ^: Textiles
Psychology		Psychology #
Computing		Software Development
Studio Arts		Studio Arts
Systems Engineering		Systems Engineering
Theatre Studies		Theatre Studies (not offered in 2020)
VCAL: Work and Personal Development Skills		NA
VET: External		
VET: Structured Workplace Learning		
Visual Communication Design		Visual Communication Design

^ PD & T= Product Design & Technologies

* indicates Units 3 & 4 subjects that require knowledge at Units 1 & 2 level.

students attempting Units 3 & 4 would be advantaged by successful completion of Year 10 or Year 11 in this subject.

For all other subjects, please check the 'Prerequisites' statement in each entry.

YEAR 10 COURSE INFORMATION

Curriculum Structure - 2020

The current curriculum structure at Year 10 is aligned with Years 11 and 12 which will allow students, who are recommended, to access a Units 1 and 2 VCE or VET subject. At the same time, all subjects studied will be allocated five periods a week. Certain subjects will be Core subjects and must be undertaken while others will be Electives.

All Year 10 students will need to study:

- English as a Core subject for the entire year
- Mathematics as a Core subject for the entire year
- One Science Core subject
- At least one semester-based Humanities elective.

This will result in every student studying English and Maths for the entire year and at least one semester-long Humanities subjects and one Science subject. The rest will be based on student choice and may comprise Electives (from any Domain Area), further Core (Humanities and/or Science), VET, and/or a VCE Units 1 & 2 subject.

Example only:

Semester 1	*Semester 2*
English	*English*
Mathematics	*Mathematics*
Humanities Core A	*Humanities Core B*
Science Core A	*Elective*
Elective	*Elective*
Elective	*Elective*

Please note:

- A Languages subject is considered to be a year-long study
- A Units 1 and 2 VCE subject is a year-long study
- If a VCE Science or Humanities is chosen, students must still complete a Year 10 Core Science or Humanities elective.
- Subject selection will be contingent on rigorous student counselling and teacher recommendations.

Terminology:

- 'College Prerequisite' – the College requires the subject to be taken as a prior condition to undertaking the corresponding Units 1 & 2 study (e.g. Atomic/Physics Science Core (semester-based) or Science^2 Core (year-long) must be undertaken at Year 10 in order to study Units 1 and 2 Physics).

- 'College Recommendation' – the College strongly recommends the subject to be taken to better prepare the student for Units 1 & 2.

Accelerated VCE Study - Year 10 Students undertaking Units 1 & 2 Studies

A limited number of places for Year 9 students who wish to apply to undertake a Units 1 & 2 study in 2020, as Year 10 students, are available. The following selection criteria are used as the basis of approval:

- Consistently high level of commitment and persistence across all subject areas with mostly *"Consistently"* in the *'Work Habits'* of the Semester Reports.
- Demonstrated ability to perform to a high standard and cope confidently with the demands of study at their current level with a minimum Vic Curriculum *'Above expected level'* and Viewbank grading of *'Excellent'* across *like* subjects.
- A minimum of a Vic Curriculum *'At expected level'* and Viewbank grading of *'Very Good'* in English.
- Demonstrated ability to reflect on, and evaluate, student's own learning and a willingness to seek teacher assistance when appropriate.
- At least 90% attendance in all subjects of the current year.
- A well-considered academic program.

Students are required to complete an *Application for Accelerated VCE Study Form* and submit it by Tuesday July 16, 2019 for consideration. Approvals are based on the above guidelines, using Semester 1 reports as the main reference, along with teacher recommendations.

Please note:

1. Students undertaking a Units 1 & 2 study must fully appreciate that these units help them develop the skills and content that will provide a strong foundation for Units 3 & 4. With this in mind, undertaking a Units 1 & 2 does not guarantee a Units 3 & 4 sequence. The decision to continue is based on a yearly review by the Curriculum and Wellbeing Panel.
2. Year 9 into 10 EA Program students will be permitted a maximum of two Accelerated Units 1 & 2 subjects, including any external subjects e.g. Languages. Other students will be permitted to undertake one Accelerated Units 1 & 2 subject.
3. Year 11 students will always have priority for places in Units 1 and 2 subjects ahead of Year 10 students.
4. A separate form must be completed for each *Application for Accelerated VCE Study.* If all applications are approved, you will be asked to decide which study to pursue.

Transition Timeline - Year 9 into 10

May – June	Year 9 Pre-Course Counselling
May 30	Alternative Pathways Evening Years 8 - 12.
June 18	Pathways Expo
June 18	Year 9 into 10 Parent Information Evening
July 16	Applications for Accelerated VCE Study Units 1 & 2 Forms due to Coordinators Office
Early Term 3 Week beginning July 15	Bookings open for Subject Selection Day (with parent)
July 24 – 25	Confirmation of eligibility for Accelerated VCE Units 1 & 2 Study
July 26	Subject Selection Day. Individual student interviews with parent(s) (8:30 am – 5:30 pm)
July 31	Subject Selection Forms due
November 22	Course Confirmation
November 26 – December 13	Year 10 2020 Transition Program

Enhanced Acceleration (EA) Program Students

Current Year 9 EA Program students will be expected to undertake Enhanced English as their Core English in 2020.

EA students will also be invited to undertake General Mathematics (Advanced) Units 1 and 2 as their Core Maths. Students wishing to undertake Math. Methods Units 1 & 2 or General Maths (Further) Units 1 & 2, must apply by completing the *Application for Accelerated Study Form* and submit it by July 16, 2019. A separate application form is required for each study.

Example of current Year 9 EA Program student's course:

Year 10 Semester 1, 2020	Year 10 Semester 2, 2020
Enhanced English	Enhanced English
General Maths (Adv) Units 1 & 2	General Maths (Adv) Units 1 & 2
Japanese	Japanese
History 20th Century Units 1 & 2	History 20th Century Units 1 & 2
Philosophy	Music Performance
Atomic Chemistry & Physics	Accounting

Year 11 2021	Year 12 2022
English Units 1 & 2	English Units 3 & 4
Mathematical Methods Units 1 & 2	Mathematical Methods Units 3 & 4
Japanese Units 1 & 2	Japanese Units 3 & 4
Chemistry Units 1 & 2	Chemistry Units 3 & 4
History Revolutions Units 3 & 4	Accounting Units 3 & 4
Music Performance Units 1 & 2	

Year 10 Examinations

Viewbank College conducts internal examinations for Year 10 students at the end of Semester 1 and Semester 2. Due to the expectations of VCE, it is desirable that students gain exam experience. To this end, students will be required to sit exams in all Core and Elective subjects. It is important to note that end-of-semester exams are only one of a range of assessment tasks undertaken.

Satisfactory Completion of Year 10

In view of the nature and demands of the VCE, Year 10 students who wish to be recommended for promotion to Year 11 should have demonstrated:

- Satisfactory completion (S) of English and Maths in accordance with the *S & N Policy.*
- Satisfactory completion of College Prerequisites for VCE subjects e.g. Atomic Chemistry & Physics Science Core must be undertaken at Year 10 in order to study Units 1 and 2 Physics.
- Students with at least two Ns and/or who consistently do not meet the 'Student Code of Conduct' may result in an interview with the Year 10 Panel.
- Students with an N in a particular subject may be ineligible to continue with that study at VCE level.
- The Year 10 Panel will review all N results and determine eligibility for progression.
- 90% minimum attendance in all subjects.

Work Experience

Participation in the Work Experience program is a mandatory requirement for all students who enter Year 10 and who are 15 years of age (before work experience commences). The opportunity to undertake responsibilities in a real work place environment is a very important part of the preparation for future employment for each individual student. Students are required in the first instance to organise their own placement. The aim is for the placement to align with career aspirations beyond school.

The 5-day work experience takes place in the final week of Term 2. There is some flexibility regarding dates where placements are particularly difficult to secure. Students will be assisted with work experience requirements by the Careers Counsellor.

All students *must* undertake the General Occupational Health & Safety Module and the Industry Specific Module relevant to their particular Work Experience placement. Without successful completion of the Worksafe Modules, Work Experience will not be permitted.

The Work Experience program aims to:

- Provide practical day-to-day experience in an adult working environment
- Promote an understanding of the working world that will allow for an informed career choice
- Motivate students to see the relevance of school achievement
- Develop a productive relationship between school and the broader community
- Develop knowledge of workplace health and safety Issues.

Students undertake work in a wide range of employment opportunities throughout the metropolitan area. Under the terms of the Work Experience Act, they are covered for Work Safe Insurance and Public Liability Insurance, and are generally paid a minimum of $5.00 per day. A written diary is completed after the week's experience is expected from all students. A follow-up reflections task may be required in Term 3. Employers are asked to complete a performance report on students.

Staff members participate in the Work Experience Program in the following ways:

- A Careers teacher with the support of assigned Year 10 staff, conducts units of career related topics, including Workplace training
- The Careers teacher will coordinate the program and finalise arrangements after students have found a Work Experience placement
- A staff member will contact a student during their work experience placement in order to maintain the liaison between school and the workplace
- The variety of jobs experienced makes for productive classroom discussion when students return to school.

Most students enjoy their Work Experience week and receive positive feedback from their employer. Many find it helps determine study choices in VCE and course preferences beyond secondary school.

VCE COURSE INFORMATION
Organisation of Studies at Viewbank College

Studies are taken in blocks. Almost any combination of studies is possible and blocks are set accordingly to a student's choice of units. However, it must be recognised that an unusual combination may not fit the timetable and therefore will not be possible to schedule.

It is also important to note that if only a small number of students wish to undertake a particular study, the school cannot guarantee to provide it. Likewise, avoidance of clashes between a student's subject selections cannot be guaranteed.

Students will normally select 12 units in the first year and 10 units in the second year of the VCE. Transfer from one study to another at the end of Unit 1 is possible but cannot be guaranteed and may be unsettling for the student. Undertaking a thorough investigation of subject choices now is strongly recommended. The following guidelines should also be considered;

- It is recommended that students only undertake one folio subject in any year of VCE. Two folio subjects will be assessed on an individual basis. A study of three or more VCE folio subjects is not permitted.
- Students seeking to undertake a VCE study outside of the College will need to seek permission from the VCE Panel.
- Subjects will be offered according to viability of staffing and student enrolments.

The VCE is awarded on the basis of satisfactory completion of units according to VCE program requirements as set out in accredited study designs.

- The minimum requirement is satisfactory completion of 16 units, which must include:
    - at least three units from the English group which must include a Units 3 & 4 sequence and,
    - at least three sequences of Units 3 & 4 studies which can include further sequences from the English group.

- All Units 3 and 4 studies must be done as a sequence. There are some studies where it is strongly recommended that Unit 1 and/or Unit 2 be completed before attempting Units 3 and 4. If students wish to select Unit 1 of a study, they must also select Unit 2 of that study as part of their program. Unit 2 subject changes will be considered only in extraordinary circumstances and cannot be guaranteed due to timetabling constraints.

- Students are required to attend 90% of scheduled classes ('VCE Compliant Percentage') in order to successfully complete a unit of study.

- Only in exceptional circumstances will students be permitted to undertake more than one Units 3 and 4 study in Year 11. These students may still be expected to undertake five Units 3 and 4 subjects as Year 12 students.

Choosing VCE studies

The ATAR is designed so that it should not affect a student's choice of VCE studies. While scaling may raise the study scores in some subjects, the increase occurs only when the strength of competition is high. Scaling lowers the study scores of other subjects where the strength of competition is low. The strength of competition is measured by the total VCE performance of the students taking the study in that year.
Scaling and strength of competition thus balance out. This leaves students free to choose their studies on the right kinds of educational grounds: what they enjoy, what they are interested in, and what they need as prerequisites for their intended future studies or careers.
In particular, there is no bias favouring the Sciences over the Humanities, or any other particular combination of studies or focus of study. Sometimes particular combinations or studies reinforce each other, but that applies equally to the Sciences, Humanities and other areas.
The best advice is to choose studies:

- which the student enjoys
- which the student achieves well in
- that the student may need for future study or work
- which maintain and develop the student's special skills and talents.

When selecting Units 1 & 2 subjects, students should be careful to have in mind that some tertiary courses have prerequisite Units 3 & 4 studies and this, in turn, may affect course selection. Advice on prerequisites may be sought from the Careers Counsellor.

Accelerated VCE Study - Year 11 Students undertaking Units 3 & 4 Studies

Current Year 10 students have the opportunity to extend their studies by undertaking a Units 3 and 4 subject in Year 11 in 2020. The following selection criteria are used as the basis of approval:

- Consistently high level of commitment and persistence across all subject areas with mostly *"Consistently"* in the *'Work Habits'* of the Semester Reports.
- Demonstrated ability to perform to a high standard and cope confidently with the demands of study at their current level with a minimum Vic Curriculum *'Above expected level'* and Viewbank grading of *'Excellent'* across *like* subjects.
- A minimum of a Vic Curriculum *'At expected level'* and Viewbank grading of *'Very Good'* in English.
- Demonstrated ability to reflect on, and evaluate, student's own learning and a willingness to seek teacher assistance when appropriate.
- At least 90% attendance in all subjects of the current year.
- A well-considered academic program.

Students who have accessed an Accelerated VCE Study in Year 10 may consider continuing with this program and completing the sequenced study of Units 3 and 4 in Year 11. A strong performance in all aspects of assessment during the first year of accelerated VCE will be required to continue this study. In some cases, students will be required to defer their study of that subject in order to complete it in Year 12.

Students are required to complete an *Application for Accelerated VCE Study Form* and submit it by Tuesday July 16, 2019 for consideration. Approvals are based on the above guidelines, using Semester 1 reports as the main reference, along with teacher recommendations. Successful candidates will be advised by letter in July 2019. Please note that not all subjects are available.

Please note:

1. Year 10 into 11 EA Program students will be permitted a maximum of 2 Accelerated Units 3 & 4 subjects, including any external subjects e.g. Languages. Other students will be permitted to undertake one Accelerated Units 3 & 4 subject.
2. Year 12 students will always have priority for places in Units 3 and 4 subjects ahead of Year 11 students.

* For full details of the 'VCE Attendance Policy' and all other VCE Policies, please refer to the *VCE Student Policy Handbook*, available under the 'Community' tab → *School Documentation* on COMPASS.

Transition Timeline - Year 10 into 11

May 1 – 17	Pre-Course Counselling
May 30	Alternative Pathways Evening Years 8 - 12
June 11	Year 10 into 11 Student Information Session
June 17	Yr 10 into 11 VCE Parent Information Evening
June 18	Pathways Expo
June 24 – 28	Work Experience
July 16	Applications for Accelerated VCE Study Units 3 & 4 due to the Coordinators Office
July 24 – 25	Confirmation of eligibility for Accelerated VCE Units 3 & 4 Study
July 31	Subject Selection Forms due
November 21 - 22	Course Confirmation
November 26 – December 6	Year 11 2020 Transition Program

Transition Timeline - Year 11 into 12

June 13	Year 11 into 12 Information Session
July 31	Subject Selection Forms due
November 21 - 22	Course Confirmation
November 26 – December 6	Year 12 2020 Transition Program

Tertiary Selection and calculating the Australian Tertiary Admissions Ranking (ATAR)

Last year, nearly fifty thousand students completed the VCE in Victorian secondary schools. The majority of these students apply for tertiary places in courses offered in Victoria's universities and institutes of Technical and Further Education (TAFE).

First, a student must satisfy any VCE prerequisite studies for the course. Students not satisfying the prerequisites are generally not considered further for the course. The second factor used in selection is an overall measure of how well the student has performed in his or her VCE studies. This measure is called the Australian Tertiary Admissions Rank (ATAR). ATARs are only determined for students who have been successful in their VCE studies. How important the ATAR is in selecting students for a course depends on the selection criteria of the course concerned.

Primary Four

The study score in an English study and the next best three study scores are referred to as the "primary four".

Increment
Additional fifth and sixth subjects, studied at Units 3 and 4 level, contribute 10% of their score to create the ATAR.

Middle Band Selection
When selecting between applicants for some tertiary courses, a two-stage selection process is used. Stage 1 identifies applicants whose ATAR is clearly sufficient to be selected and those whose ATAR is insufficient. Stage 2 closely considers students who fall between these two groups. Other factors and/or subjects are used to determine selection from those in this "middle-band". These are clearly identified in the annual *VTAC Guide*.

Extra Requirements
Depending on the selection criteria for the course, a third set of considerations may also play a role in selection. These considerations could include interviews, detailed consideration of the student's VCE results, work experience, auditions, or the assessment of a folio of work. Applications for special consideration are also taken into account. All extra requirements are clearly listed in the *VTAC Guide*.

How the ATAR is used

At the end of the VCE, students will receive from the Victorian Curriculum Assessment Authority (VCAA) a statement of results which includes a study score for each Units 3 and 4 study. This score will be based on the numerical scores the student has obtained on their School-assessed Coursework/School-assessed Tasks and examinations for each study and the relative position of the cumulative score when compared to the rest of the students undertaking a particular study throughout the state.
The Victorian Tertiary Admissions Centre (VTAC) will use these scores to calculate a student's ATAR.
All VCE Units 3 and 4 will:

Be assessed for satisfactory completion of the unit. Students will receive S (satisfactory completion) or N (non-satisfactory completion) for each unit depending on whether or not they satisfactorily complete all coursework requirements and reach a satisfactory level of performance on all assessment tasks.
Have three graded assessments in each Units 3 and 4 sequence. Each subject has a mixture of internal assessment (conducted by the school) and external assessment (examinations set by the VCAA).
Scaled scores of an English study and 3 other best studies in Units 3 & 4 are aggregated (added); then 10% of scores obtained in up to a maximum of '2 other Units 3 and 4 studies' (increments) are added to the 'best four'. (University subjects and VET studies can also be included in these '2 other studies').
Scores will be ranked and given a percentile ranking (to two decimal places) up to a maximum of 99.95.

VCE English as an Additional Language (EAL)

The Viewbank College VCE EAL Policy reflects that of the Victorian Curriculum and Assessment Authority (VCAA).

YEAR 10 The ARTS

Dance – Elective

Semester Overview:

Students will learn efficient warm up techniques to not only improve range of movement, but prepare the body for various movement patterns. They will explore the various styles of dance commonly seen in commercial dance, with the opportunity to research cultural dances from around the globe. Student will develop their skills in choreography (within a style of their choice) and have a chance to teach their peers the basics, before performing a solo or group piece.

Elaborations:

This subject is recommended for students who may be interested in Dance at the VCE level.

Theoretical components will focus on:

- Biomechanics behind a range of stretching techniques
- Routine composition – choreography, musicality, performance etc.
- Origins of various dance styles

Practical components will focus on:

- Practising good technique in warm up and skill development
- Participation in a range of taster 'work shops' for a range of dance genres
- Performance of a routine, using a range of movement patterns and styles

Victorian Curriculum Assessment Areas:

- Explore and Express Ideas
- Dance Practices
- Present and Perform
- Respond and Interpret

YEAR 10 The ARTS

Drama: Street Theatre – Elective

Semester Overview:

Drama: Street Theatre will involve students in the process of creating several engaging short performances to be performed to an audience in alternative spaces around school. Students will gain valuable ensemble experience from working in groups for the whole semester, and creative problem solving will improve students' self-confidence and improvisation skills. Stagecraft elements, costume, lighting, makeup, direction and blocking will be an essential part of the course. There will also be a focus on street theatre styles and performing in a range of different circumstances to encourage students to be resourceful and think creatively. Students will be given an opportunity to engage with all aspects of performance making throughout the process.

Workshops in the school theatre would be designed to familiarise students with theatre technology and stagecraft, such as lighting, sound, costume, blocking, directing and publicity.

Elaborations:

Explore and Express Ideas

Students will learn:

- to improvise with the elements of drama and narrative structure to develop ideas and explore subtext to shape devised and scripted drama
- to manipulate combinations of the elements of drama to develop and convey the physical and psychological aspects of roles and characters consistent with intentions in dramatic forms and performance styles.

Drama Practices

Students will be able to:

- practise and refine expressive capacity of voice and movement to communicate ideas and dramatic action in a range of forms, styles and performance spaces
- structure drama to engage an audience through manipulation of dramatic action, forms and performance styles and by using design elements

Present and Perform

- Students will: perform devised and scripted drama making deliberate artistic choices and shaping design elements to unify dramatic meaning for an audience

Respond and Interpret

Students will:

- evaluate how the elements of drama, forms and performance styles in devised and scripted drama to convey meaning and aesthetic effect
- analyse a range of drama from contemporary and past times to explore differing viewpoints and enrich their drama practice

Victorian Curriculum Assessment Areas:

- Explore and Express Ideas
- Drama Practices
- Present and Perform
- Respond and Interpret

Assessment comprises creating and presenting an ensemble performance; reflection and written analysis. This will help prepare students for the Written Analysis Outcome in VCE Drama, a detailed and up to date digital journal.

YEAR 10 The ARTS

Media Arts 'Film' – Elective

Semester Overview:

The Year 10 course aims to provide students with specialised knowledge required in performing a wide range of creative tasks in the medium of moving image (film); utilising industry-based software and equipment. Year 10 'Film' has a direct focus on the analysis of narrative films and the development, pre-production, production, post-production and distribution in the creation of their own short films.

Students will develop computer and media literacy skills, essential in the Media and Communications Industry of the 21st Century. Students will use industry-based programs, specifically Adobe Premiere Pro. Furthermore, they will develop skills in using camera, sound and lighting equipment. Students will research, design, create and reflect on media devised from a range of stimuli, in order to develop a personal style.

Elaborations:

Explore and Represent Ideas
Students will be able to:

- Experiment with ideas and stories that manipulate media elements and genre conventions to construct new and alternative viewpoints in images, sounds and text.
- Manipulate media representations to identify and examine social and cultural values and beliefs.

Media Arts Practices
Students will be able to:

- Develop and refine media production skills to integrate and shape the technical and symbolic elements in images, sounds and text to represent a story, purpose, meaning and style.
- Plan, structure and design media artworks for a range of purposes that challenge the expectations of specific audiences by particular use of media elements, technologies and production processes.

Present and Perform
Students will be able to:

- Plan, produce and distribute media artworks for a range of community, institutional contexts and different audiences, and consider social, ethical and regulatory issues.

Respond and Interpret
Students will be able to:

- Analyse and evaluate how technical and symbolic elements are manipulated in media artworks to challenge representations framed by social beliefs and values in different community and institutional contexts.
- Analyse and evaluate a range of media artworks from contemporary and past times, to explore differing viewpoints and enrich their media arts making.

Victorian Curriculum Assessment Areas:

- Explore and Represent Ideas
- Media Arts Practices
- Present and Perform
- Respond and Interpret

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 The ARTS

Media Arts 'Social Media and Design' – Elective

Semester Overview:

The Year 10 course aims to provide students with specialised knowledge required for print magazine and digital design industries, performing a wide variety of creative tasks in mediums such as photography, print and digital design. Year 10 'Social Media and Design' has a direct focus on examining the effect social media has on society, the ethical and privacy implications that arise as a result of social media, and how social media has changed the landscape of advertising. Students will develop skills in the development, pre-production, production, post-production and distribution of creating print magazines, digital design and photography, using industry-based programs, Adobe Photoshop and Adobe InDesign. They will also gain skills in using camera and studio lighting equipment.

Students will develop computer and media literacy skills, essential in the Media and Communications Industry of the 21st Century. Students will use appropriate decision-making skills to find the most effective way to implement ideas, research, design, create and reflect on media devised from a range of stimuli, in order to develop a personal style.

Elaborations:

Explore and Represent Ideas
Students will be able to:

- Experiment with ideas and stories that manipulate media elements and genre conventions to construct new and alternative viewpoints in images, sounds and text.
- Manipulate media representations to identify and examine social and cultural values and beliefs.

Media Arts Practices
Students will be able to:

- Develop and refine media production skills to integrate and shape the technical and symbolic elements in images, sounds and text to represent a story, purpose, meaning and style.
- Plan, structure and design media artworks for a range of purposes that challenge the expectations of specific audiences by particular use of media elements, technologies and production processes.

Present and Perform
Students will be able to:

- Plan, produce and distribute media artworks for a range of community, institutional contexts and different audiences, and consider social, ethical and regulatory issues.

Respond and Interpret
Students will be able to:

- Analyse and evaluate how technical and symbolic elements are manipulated in media artworks to challenge representations framed by social beliefs and values in different community and institutional contexts.
- Analyse and evaluate a range of media artworks from contemporary and past times, to explore differing viewpoints and enrich their media arts making.

Victorian Curriculum Assessment Areas:

- Explore and Represent Ideas
- Media Arts Practices
- Present and Perform
- Respond and Interpret

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 The ARTS

Music Performance - Elective

Semester Overview:

Students will interpret, rehearse and perform solo and ensemble repertoire in a range of forms and styles. Through performance, they will demonstrate a developing personal style and technical control, expression and stylistic understanding. They will use general listening and specific aural skills to enhance their performances and use knowledge of the elements of music, style and notation to compose, document and share their music. Students will visually and aurally analyse works and performances of different styles. They will evaluate the use of elements of music and defining characteristics from different musical styles. Students will use their understanding of music making in different cultures, times and places to inform and shape their interpretations, performances and compositions.

Elaborations:

Explore and Express Ideas:

Students improvise and arrange music, using aural awareness and technical skills to manipulate the elements of music to explore options for interpretation and developing music ideas. They will manipulate combinations of the elements of music in a range of styles, using technology and notation to communicate music ideas and intentions.

Music Practices:

Students will create, practise and rehearse music to interpret a variety of performance repertoire with increasing technical and expressive skill and awareness of stylistic conventions. They will plan, develop, and notate compositions with an understanding of style and convention.

Present and Perform:

Students will perform music applying techniques and expression to interpret the composer's use of the elements of music and compositional devices.

Respond and Interpret:

Students will evaluate a range of performances and compositions to inform and refine their own music making. They will analyse a range of music from contemporary and past times, to explore differing viewpoints and enrich their music making, and consider music in international contexts.

Victorian Curriculum Assessment Areas:

- Explore and Express Ideas
- Music Practices
- Present and Perform
- Respond and Interpret

Students will be assessed in the following areas: solo performance; group performance; written exam and composition.

Additional Information:

Students selecting Music Performance should be undertaking tuition on a musical instrument (including voice), either at Viewbank College or by private arrangement.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 The ARTS

Studio Art - Elective

Semester Overview:

Students identify the influences of other artists and analyse connections between techniques processes and visual conventions in artworks to develop their own art practice. They select, and manipulate materials, techniques, processes, visual conventions and technologies to express ideas and viewpoints in their artworks. Students analyse and evaluate how artists communicate ideas and convey meaning in artworks. Students discuss how ideas and beliefs are interpreted by audiences and analyse and evaluate exhibitions from different cultures, times and places.

Elaborations:

Explore and Express Ideas:

Students explore visual arts practices and styles as inspiration to develop a personal style, explore, express ideas, concepts and themes in artworks. Students explore how artists manipulate materials, techniques, technologies and processes to develop and express their intentions in artworks.

Visual Arts Practices:

Students will select and manipulate materials, techniques, technologies and processes in a range of art forms to express ideas, concepts and themes. Students conceptualise, plan and design artworks that express ideas, concepts and artistic intentions.

Present and Perform:

Students will create, present, analyse and evaluate displays of artwork considering how ideas can be conveyed to an audience.

Respond and Interpret:

Students will analyse and interpret artworks to explore the different forms of expression, intentions and viewpoints of artists and how audiences view them. Students will also analyse, interpret and evaluate a range of visual artworks from different cultures, historical and contemporary contexts to explore different viewpoints.

Victorian Curriculum Assessment Areas:

- Explore and Express Ideas
- Visual Arts Practices
- Present and Perform
- Respond and Interpret

Students will be expected to maintain and complete a folio of work which contains a visual diary and finished artworks as well as written analysis tasks.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 The ARTS

Visual Communication Design - Elective

Semester Overview:

Students will develop their understanding of how visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Visual communication design relies upon drawing as the most important part of the visual language to support ideas and to communicate to an audience. Throughout this study, students explore manual and digital drawing methods to develop and refine presentations. Students will investigate the work and practices of Australian and international designers.

Elaborations:

- Developing and refining visual communications, using relevant drawing conventions and methods specific to a selected design field, such as environmental, industrial and communication design.
- Investigating the use of drawing systems to communicate ideas in different design fields, for example, manual, digital or technical drawing systems used in the different design fields of industrial, environmental and communication design.
- Selecting manual and technical drawing conventions relevant to different stages of the design process, for example, visualisation, development and refinement.
- Using paraline, orthogonal and perspective drawing systems to communicate concepts in the development and refinement of visual communications.
- Selecting and applying relevant manual and digital drawing methods conventions in the design process to communicate ideas.
- Investigating drawing conventions in visual communication design.
- Evaluating the use of personal aesthetic, visual language and drawing conventions when creating visual communications.

Victorian Curriculum Assessment Areas:

- Explore and Represent Ideas
- Media Arts Practices
- Present and Perform
- Respond and Interpret

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 DESIGN & TECHNOLOGIES

Digital Technologies - Elective

Semester Overview:

Digital Technologies elective provides students with the framework and foundation to continue the study into VCE Computing. This exciting new area of study explores how our lives are impacted by technology for now and the future, and provides students with an understanding of the technical underpinnings of information systems in a range of settings. The study is divided into three areas; digital systems - the roll of hardware and software in managing data in networked systems; data and Information – the processes involved in manipulating data to form information; and creating digital solutions – using data structures and programming techniques to solve problems.

Elaborations:

Knowledge and understanding

By the end of Level 10, students will have an understanding of the interactions between computer hardware, software and users. Students will examine the key hardware components that are required for communications, storage, processing and retrieval of data.

Students will develop skills and confidence in coding through web page development and applications development, and define algorithms to solve more complex problems. Students will be working individually and collaboratively in small teams to complete enquiry-based projects of their own choosing. Examples may include 2D or 3D games development, robotics, web-applications or other areas of computing. Students will develop their understanding of digital citizenship by engaging in online forums and knowledge bases to assist them with their projects.

Key Skills

Students will be able to:

- Work independently in enquiry-based ICT projects to achieve set outcomes
- Recommend appropriate computer hardware for a range of settings, taking into consideration: networking, security, hardware and software limitations
- Use a number of "real-time" collaborative software applications to support high quality communication with their peers and online communities
- Model computational thinking through pseudo code
- Develop skills in logical and analytical reasoning to write computer code (programming) for desktop, mobile or microcontrollers (robotics / STEM projects - Arduino or Raspberry Pi), 2D or 3D games.
- Use industry standard web-page coding to build functional web pages
- Identify impacts and strategies to manage privacy, ethical and legal obligations in relation to selected information systems

Victorian Curriculum Assessment Areas:

- Digital Systems
- Data and Information
- Creating Digital Systems

YEAR 10 DESIGN & TECHNOLOGIES

Emerging Technologies, Systems & Design - Elective

Semester Overview:

Students create and design objects related to students interest such fashion accessories, technological toys, entertainment systems, sustainability solutions, mechatronics, bio-technological products.
Students will develop a sound understanding of the new and emerging technologies, such as Additive manufacturing and design, Robotics and Automation. Students will aim to become proficient in the use of new technologies such as 3D Printing, designing and 3D Scanning. Student will also learn to solder and use other emerging technologies such as laser cutters. This course will also introduce students to concepts of mechanical, electronic engineering, energy transformation and energy management and its role in sustainability. Students will apply design thinking as they apply their learning to the development of integrated projects to design solutions.

Elaborations:

Impact and use of 3D designing and printing
Students will learn:

- The workings of a 3D Printer and its advantages and limitations
- To design using TinkerCAD or Autodesk Fusion to design creative prototypes (depending on your proficiency)
- To use a 3D scanner
- To use a laser cutter
- The basic concepts of Mechanical systems
- The basic concepts of electronics and the skills in using tools such as soldering irons.
- To develop simple Robotics systems and develop an understanding of the functionality of a robot to enhance human efficiency
- How energy transformations take place and the role of new technologies in impacting energy efficiency and sustainability
- How to apply design thinking and project management skills to produce a functional prototype as a solution for some open ended challenges for global issues.

Students will be able to:

- Become critical users of technologies, and designers and producers of designed solutions
- Investigate, generate and critique designed solutions for sustainable futures
- Use design and systems thinking to generate innovative and ethical design ideas, and communicate these to a range of audiences
- Create designed solutions suitable for a range of contexts by creatively selecting and safely manipulating a range of materials, systems, components, tools and equipment
- Learn how to transfer the knowledge and skills from design and technologies to new situations
- Understand the roles and responsibilities of people in design and technologies occupations, and how they contribute to society.

Victorian Curriculum Assessment Areas:

- Technologies and Society
- Technologies Contexts
- Creating Designed Solutions

Year 10 DESIGN & TECHNOLOGIES

Fashion – Elective

Semester Overview:

This subject aims to develop the student's knowledge and skills of garment design and construction. Students design and create an original garment, such as a shirt, or skirt based on their own individual design brief. At this level, there is emphasis on individual expression of ideas and creative, ethical and sustainable use of materials. The techniques they will learn may involve complex skills such as computer aided design. During this process, they learn to draft a simple pattern and apply appropriate construction methods. This course creates a pathway to VCE Product Design and Technology – Textiles.

Elaborations:

Students will be required to:

- Investigate current fashion trends. They will develop an individual design brief and select appropriate materials, tools and equipment in order to develop design ideas.
- Design a range of fashion garments based on their design brief. They will also design an advertisement for the target market.
- Produce a finished garment using appropriate technologies and processes.
- Evaluate their finished garment against comprehensive criteria for success recognizing the need for sustainability.
- Plan and manage projects individually, taking into consideration time, cost, risk and production processes.

Victorian Curriculum Assessment Areas:

- Technologies and Society
- Technologies Contexts
- Creating Designed Solutions

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 TECHNOLOGIES

Food Studies - Elective

Semester Overview:

Food Studies is the elective for you if you would like to develop skills in food, nutrition, marketing and producing a variety of innovative and creative dishes. You will expand upon your existing cooking abilities while working collaboratively with others. You will also develop an appreciation of current ethical issues which influence food choices. Student voice is an important component of course development activities which may vary each semester. Coursework may include excursions to small scale food manufacturing facilities and produce markets.

Each week the course typically involves two periods of practical work and additional demonstrations.

Elaborations:

Students will:

Investigate and make judgements on how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of food solutions for healthy eating.

Critically analyse factors, including social, ethical and sustainability considerations, that impact on designed solutions and the design and production processes involved.

Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas.

Develop production plans to plan and manage, both individually and collaboratively, taking into consideration time, cost, risk and production processes.

Develop a wide variety of production skills and food presentation styles.

Identify and establish safe and hygienic work methods.

Victorian Curriculum Assessment:

- Technologies and society
- Food specialisations
- Creating designed solutions

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 TECHNOLOGIES

Industrial Ceramics - Elective

Semester Overview:

This subject aims to develop the student's knowledge and skills in ceramic practice. Students design and create tableware, based on their individual design brief. At this level, there is emphasis on individual expression of ideas and creative, ethical and sustainable use of materials. The techniques they will learn involve complex skills such as wheel throwing and altering forms. They will also create lighting in response to a design brief, learn advanced hand-building skills and be given the opportunity to select appropriate materials to meet design requirements. The course aims to develop student knowledge of the design process and build skills in the use of simple and complex equipment to construct a range of products.
This subject creates a pathway to VCE Studio Arts.

Elaborations:

Students will be required to:

- Investigate current homeware trends. They will develop an individual design brief and select appropriate materials, tools and equipment in order to develop design ideas.
- Design a range of ceramic pieces based on their design brief. They will also design an advertisement for their target market.
- Produce a range of ceramic pieces using appropriate technologies and processes.
- Evaluate their designs against comprehensive criteria for success recognising the need for sustainability.
- Plan and Manage projects individually taking into consideration time, cost, risk and production processes.

Victorian Curriculum Assessment Areas:

- Technologies and Society
- Technologies Contexts
- Creating Designed Solutions

Students will be expected to maintain and complete a folio of work, which contains a visual diary and finished artworks, as well as written analysis tasks.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 DESIGN & TECHNOLOGIES

Product Design & Technology (Wood, Metal, Plastic) - Elective

Semester Overview:

The Year 10 course aims to introduce students to the different structural properties of a range of materials such as solid timber and veneered plywood and composite boards, metals and plastics. Students investigate the properties of these materials and refer to Australian Standards when investigating their use. Students will be given the opportunity to select appropriate materials to meet specified product design requirements. The course aims to develop student knowledge of the product design process, and build skills and understanding in the use of simple and complex equipment to construct a range of products using different materials, according to specific criteria outlined in design briefs.

Technologies Contexts:

Materials and technologies specialisations Investigate and make judgements on how the characteristics and properties of materials, systems, components, tools and equipment can be combined to create designed solutions.

Elaborations:

- critiquing the design of an existing product to identify environmental consequences of material selection.
- justifying decisions when selecting from a broad range of technologies – materials, systems, component, tools and equipment. For example, selecting low-emission paints and locally sourced materials.
- analysing and explaining the ways in which the properties and characteristics of materials have been considered in the design of products with specific requirements such as minimising size and weight for distribution.
- investigating emerging materials and their impact on design decisions.

Victorian Curriculum Assessment Areas:

Creating Designed Solutions

- Investigating - Critique needs or opportunities to develop design briefs and investigate and select an increasingly sophisticated range of materials, systems, components, tools and equipment to develop design ideas.
- Generating - Apply design thinking, creativity, innovation and enterprise skills to develop, modify and communicate design ideas of increasing sophistication.
- Producing - Work flexibly to safely test, select, justify and use appropriate technologies and processes to make designed solutions.
- Evaluating - Evaluate design ideas, processes and solutions against comprehensive criteria for success recognising the need for sustainability.
- Planning and managing - Develop project plans to plan and manage projects individually and collaboratively taking into consideration time, cost, risk and production processes.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 10 ENGLISH

Year 10 English – Core

Semester Overview:

The Year 10 English course is based on the Victorian Curriculum which is organised into three interrelated strands: Language, Literature and Literacy. Together the three strands focus on developing students' knowledge, understanding and skills in Reading and Viewing, Speaking and Listening, and Writing. It is designed to broaden students' outlook on their world, increasing appreciation and understanding of written forms, multi-modal texts, language features and text structures. In addition, students will examine the Intercultural Capability which assists young people to become responsible local and global citizens.

Elaborations:

Language

Students will learn:

- To understand how paragraphs and images can be arranged for different purposes, audiences, perspectives and stylistic effects.
- To refine vocabulary choices to discriminate between shades of meaning, with deliberate attention to the effect on audiences.
- To understand how spoken and written language evolves.

Literature

Students will learn:

- To analyse and evaluate text structures and language features of literary texts and make relevant thematic and intertextual connections with other texts.
- To evaluate the social, moral and ethical positions represented in texts.
- To reflect on, extend, endorse or refute others' interpretations of and responses to literature.

Literacy

Students will learn:

- To create texts for imaginative, informative or persuasive purposes that reflect upon challenging issues.
- To review, edit and refine students' own and others' texts for control of content.
- To use a range of software confidently, flexibly and imaginatively to publish texts.
- To plan, rehearse and deliver presentations selecting and sequencing appropriate content.

Victorian Curriculum Assessment Areas:

- Reading and Viewing
- Writing
- Speaking and Listening
- Intercultural Capability

YEAR 10 ENGLISH

Year 10 Enhanced English (EA Program Students) - Core

Semester Overview:

The Year 10 Enhanced Accelerated English course is based on the Victorian Curriculum which is organised into three interrelated strands: Language, Literature and Literacy. Together the three strands focus on developing students' knowledge, understanding and skills in Reading and Viewing, Speaking and Listening, and Writing. It is designed to broaden and enhance students' outlook on their world, enabling them to create a wide range of texts to articulate complex ideas. Students increase their appreciation and understanding of written forms, multi-modal texts, language features and text structures. In addition, students will examine the Intercultural Capability which assists young people to become responsible local and global citizens.

Elaborations:

Language

Students will learn:

- To understand how paragraphs and images can be arranged for different purposes, audiences, perspectives and stylistic effects.
- To refine vocabulary choices to discriminate between shades of meaning, with deliberate attention to the effect on audiences.
- To understand how spoken and written language evolves.

Literature

Students will learn:

- To analyse and evaluate text structures and language features of literary texts and make relevant thematic and intertextual connections with other texts.
- To evaluate the social, moral and ethical positions represented in texts.
- To reflect on, extend, endorse or refute others' interpretations of and responses to literature.

Literacy

Students will learn:

- To create texts for imaginative, informative or persuasive purposes that reflect upon challenging issues.
- To review, edit and refine students' own and others' texts for control of content.
- To use a range of software confidently, flexibly and imaginatively to publish texts.
- To plan, rehearse and deliver presentations selecting and sequencing appropriate content.
- To use comprehension strategies to compare and contrast information within and between texts, identifying and analysing embedded perspectives, and evaluating supporting evidence.

Victorian Curriculum Assessment Areas:

- Reading and Viewing
- Writing
- Speaking and Listening
- Intercultural Capability

YEAR 10 ENGLISH

Literature- Elective

Semester Overview:

The English curriculum is built around the three interrelated strands of Language, Literature and Literacy. Together the strands focus on developing students' knowledge, understanding and skills in Reading and Viewing, Speaking and Listening, and Writing. This Year 10 elective focuses on Literature and aims to further challenge and extend students who enjoy viewing, reading and writing through a study of classical and contemporary literature texts.

Elaborations:

Language

Students will learn:

- To understand how paragraphs and images can be arranged for different purposes, audiences, perspectives and stylistic effects
- To improve language skills and to discriminate between shades of meaning by including complex and sophisticated vocabulary and other linguistic features
- To understand how spoken and written language evolves
- To compare the purposes, text structures and language features of traditional and contemporary texts in different media
- To understand that people's evaluations of texts are influenced by their value systems, the context and purpose and mode of communication

Literature

Students will learn:

- To analyse and evaluate text structures and language features of literary texts
- To evaluate the social, moral and ethical positions represented in texts
- To reflect on, extend, endorse or refute others' interpretations of and responses to literature
- Create literary texts that reflect an emerging sense of personal style, 'voice' and literary devices for a specific audience and purpose

Literacy

Students will learn:

- To review, edit and refine students' own and others' texts for control of content
- To use a range of software confidently, flexibly and imaginatively to publish texts
- To plan, rehearse and deliver presentations selecting and sequencing appropriate content
- To analyse and evaluate how people, cultures, places, events, objects and concepts are represented in texts
- To use comprehension strategies to compare and contrast information within and between texts.

Victorian Curriculum Assessment Areas:

- Reading and Viewing
- Writing
- Speaking and Listening

YEAR 10 ENGLISH
Philosophy Elective

Semester Overview:

The Year 10 Philosophy elective is based on the Victorian Curriculum, which is organised into three interrelated English elaborations: Language, Literature and Literacy. It also incorporates Critical and Creative Thinking. This subject aims to develop students' critical and analytical thinking skills through the investigation of key philosophical concepts, issues and problems. Students will explore ideas related to ethics, identity, free will and logic and reasoning through a wide range of visual and written texts in order to develop higher order thinking, problem solving skills, critical analysis and reflective thinking and writing. The themes explored require a maturity and willingness to discuss mainstream and non-mainstream ideas.

Critical and Creative Thinking Elaborations:

Questions and Possibilities

Students will be able to:

- Investigate the characteristic of effective questions in different contexts to examine information and test possibilities.
- Suspend judgments to allow new possibilities to emerge and investigate how this can broaden ideas and solutions.
- Challenge previously held assumptions and create new links, proposals and artefacts by investigating ideas that provoke shifts in perspectives and cross boundaries to generate ideas and solutions.

Reasoning

Students will be able to:

- Examine and range of rhetorical devices and reasoning errors.
- Examine how to identify and analyse suppressed premises and assumptions.
- Investigate the nature and use of counter examples structured as arguments.

Meta-Cognition

Students will be able to:

- Critically examine their own and other thinking processes and discuss factors that influence thinking, including cognitive biases.
- Investigate how the use of a range of learning strategies can be monitored, evaluated and re-directed as necessary.
- Investigate the kind of criteria that can be used to rationally evaluate the quality of ideas and proposals.

Victorian Curriculum Assessment Areas:

- Reading and Viewing
- Writing
- Speaking and Listening
- Critical and Creative Thinking

YEAR 10 ENGLISH

Writers' Workshop - Elective

Semester Overview:

The Year 10 Writers' Workshop elective is based on the Victorian Curriculum which is organised into three interrelated strands: Language, Literature and Literacy. Together the three strands focus on developing students' knowledge, understanding and skills in Reading and Viewing, Speaking and Listening, and Writing. It is specifically designed for students to explore and practise different writing styles.

Elaborations:

Language

Students will learn:

- To understand how paragraphs and images can be arranged for different purposes, audiences, perspectives and stylistic effects.
- To refine language choices to discriminate between shades of meaning with deliberate attention to the effect on audiences.
- To analyse how higher order concepts are developed in complex texts through language features.

Literature

Students will learn:

- To analyse and evaluate text structures and language features of literary texts.
- To evaluate the social, moral and ethical positions represented in texts.

Literacy

Students will learn:

- To create texts for imaginative and persuasive purposes that reflect upon complex and challenging issues.
- To review, edit and refine students' own and others' texts for control of content
- To use a range of software confidently, flexibly and imaginatively to publish texts
- To plan, rehearse and deliver presentations selecting and sequencing appropriate content.

Victorian Curriculum Assessment Areas;

- Reading and Viewing
- Writing
- Speaking and Listening

YEAR 10 HEALTH AND PHYSICAL EDUCATION

First Aid and Coaching - Elective

Semester Overview:

Students will complete their Senior Level 2 First Aid Certificate, along with coaching and umpiring qualifications such as, but not limited to, AFL Level 1 Umpiring and Basketball Level 1 Coaching. They will explore a range of coaching practices and their contribution to effective coaching and improved performance of an athlete. The roles and responsibilities of a coach will be examined, as will the coaching pathways and accreditation process. Students will develop an understanding of how the effectiveness of a coach may be determined by their style, skills and behaviours. They will also gain an understanding of the skill learning practices and interpersonal skills required to coach the development and enhancement of the performance of athletes. Students will apply these skills by designing and implementing a coaching program for a junior Viewbank College sport team.

Elaborations:

This subject is recommended for students who may be interested in Physical Education in VCE or VET Recreational and Sports Studies.
The Level 1 AFL Umpiring course aims to develop communication and leadership skills in a sports setting. This will give students a deeper understanding of the roles and responsibilities of an umpire and the crucial role they play in community sport. The course gives students an idea of the pathway available to future employment in this area.
Students will use class time to develop the knowledge and skills associated with First Aid principles. An external examiner (such as Lifesaving Victoria) will be used to give students the formal accreditation.

Students will learn:

- to plan, rehearse and evaluate options (including CPR and First Aid) for managing situations where their own or others' health, safety and wellbeing may be at risk
- to develop an understanding of the roles, responsibilities, skills and behaviours of the coach,
- to develop an understanding of effective and appropriate relationships between coach and the individual or group, understanding group dynamics, leadership skills, conflict resolution, communication and the setting of boundaries
- to develop an understanding of the rationale for the development of codes of conduct
- to apply coaching techniques, strategies and practices used by coaches to develop and improve skills
- to develop an awareness of the coaching and umpiring pathways and accreditation
- skill learning principles such as stages of learning (cognitive, associative and autonomous), skill learning processes and the role of feedback in skill learning
- open and closed skill and sport continuum; comparing environmental stability and instability
- types of practice and transfer of practice.

Students will be able to:

- plan, implement and critique strategies to enhance the health, safety and wellbeing of their communities
- create a safe and inclusive learning environment when coaching and umpiring
- demonstrate a range of coaching practices a coach may use to improve performance
- evaluate coaching methods and justify their appropriateness in a variety of settings
- apply the principles of learning to practical situations
- identify factors that influence coaching and learning at different stages of learning
- adopt the role of the coach in a variety of practical sessions and reflect, evaluate and report on the personal experience of taking on the role of a coach
- implement and refine strategies that demonstrate leadership and collaboration skills when working in groups or teams
- reflect on how 'fair play' and ethical behaviour can influence the outcomes of movement activities.

Victorian Curriculum Assessment Areas:

Movement & Physical Activity
Personal, Social and Community Health

Subject to a materials charge. Please refer to the *2019 Materials Charges* document for more information.

YEAR 10 HEALTH AND PHYSICAL EDUCATION

Lifestyle Fitness - Elective

Semester Overview:

Students will be participating in a variety of competitive sports that focus on the creation of in-class competitions that enable students to demonstrate high levels of movement and strategic game play. There will also be a focus on the components of fitness and training principles and the design of fitness programs to target particular fitness needs. Students will create their own fitness program and will adhere to it over a set period of time. They will learn the theory behind tactical and strategic game play and learn methods to analyse and optimise both performance and fitness. Students will also investigate the benefits of fitness and good health on individuals and communities.

Elaborations:

This subject is recommended for students who may be interested in Health and Human Development, Physical Education in VCE or VET Recreational and Sports Studies.

Sport and Fitness will include two sport and fitness activities sessions and three theoretical sessions per week. Sport and fitness activities on offer may include, but are not limited to; Basketball, European Handball, Soccer Ultimate Frisbee, Lacrosse, circuit training and weight training.

Students will be able to:

- perform and refine specialised movement skills in challenging movement situations
- evaluate their own and others' movement compositions and provision and application of feedback in order to enhance performance situations
- develop, implement and evaluate movement concepts and strategies for successful outcomes
- develop, implement and refine strategies that demonstrate leadership and collaboration skills when working in groups or teams
- transfer understanding from previous movement experiences to create solutions to movement challenges.

Students will learn:

- to design, implement and evaluate personalised plans for improving or maintaining their own and others' physical activity and fitness levels
- to examine the role physical activity, outdoor recreation and sport play in the lives of Australians and investigate how this has changed over time
- to evaluate and apply health information from a range of sources to health decisions and situations
- to plan, implement and critique strategies to enhance the health, safety and wellbeing of their communities
- to critique behaviours and contextual factors that influence the health and wellbeing of their communities.

Victorian Curriculum Assessment Areas:

- Movement & Physical Activity
- Personal, Social and Community Health

YEAR 10 HEALTH & PHYSICAL EDUCATION

Outdoor Education - Elective

Semester Overview:

In Year 10 Outdoor Education, students will gain an appreciation of the relationship between the environment, outdoor recreation, sustainability, human impact and the nature and role of risk, challenge and adventure. Students will participate in a range of outdoor recreation activities designed to engender a sense of self, community and personal growth. Students will be expected to lead and take an active role in planning and organising group activities within a risk management framework.

Elaborations:

Knowledge and understanding

This semester-based subject is recommended for students who may be interested in future pathways of Sport and Recreation, Outdoor Education or Eco-Tourism.

Theoretical components will focus on:

- Study of outdoor environments and how they impact individuals and communities
- External influences and stakeholders on outdoor environments and outdoor experiences
- Characteristics of specific outdoor environments, social, historical and indigenous understandings
- Environmental impacts of outdoor recreation
- Wilderness First Aid and managing a casualty in the field
- Risk assessment and following procedures

Practical component will focus on:

- Field navigation and bushwalking in a controlled environment
- Camp-craft and use of equipment
- Leadership, team building and initiative activities
- Mountain biking in non-technical and technical single tracks with varying degrees of challenge
- Flat-water canoeing on Grade 1 / Grade 2 river
- 2 Camps of 3 days duration each

Duke of Edinburgh Silver Award

- Students may opt-in to complete their Duke of Edinburgh Silver Award. This is not compulsory.

(This subject will cover the Physical Recreation and Adventurous Journey components of the Award.)

This subject will incur a service fee to cover costs of camps, canoeing and equipment. Students will be expected to have access to a mountain bike in good condition.

Victorian Curriculum Assessment Areas:
Personal and Social Sustainability

YEAR 10 HEALTH AND PHYSICAL EDUCATION

Sports Science - Elective

Semester Overview:

Students will learn about the systems of the human body and examine how they work together to produce movement. Through practical activities, they will explore the major components of the musculoskeletal, cardiovascular and respiratory systems and their contributions and interactions during physical activity. Students will develop an understanding of the characteristics of anaerobic and aerobic pathways and will relate them to the types of activities that utilise each of the pathways. Students will also investigate fundamental motor skills, proficiency of skill and skill acquisition. They will participate in a range of laboratory exercises to collect data, evaluate it and relate it to improving performance of movement.

Elaborations:

This subject is recommended for students who may be interested in Physical Education in VCE or VET Recreational and Sports Studies.

Sports Science introduces students to a number of key areas of the VCE Physical Education study in order to strengthen the development of their understanding. Key areas include both concepts and skills required to investigate the effects of performance on body systems and the various influences on performance.

This is predominantly a theory-based course, with practical classes designed to enhance understanding of topics covered in class.

Key knowledge includes:

- the musculoskeletal system working to produce movement in physical activity: bones of the human body, major muscles and muscle structure, classification of joints and joint action
- characteristics and functions of muscle fibres, fibre arrangement and type
- types of muscular contraction (isotonic, isometric and isokinetic), agonists, antagonists and stabilisers and the concept of reciprocal inhibition
- the cardiovascular and respiratory systems, including the structure and function of the heart and lungs, mechanics of breathing, gaseous exchange, blood vessels, blood flow around the body at rest and during exercise
- introduction to the characteristics of aerobic and anaerobic pathways (with or without oxygen) and their contribution to movement and dominant fibre type associated with each pathway
- Introduction to fundamental motor skills, proficiency and skill acquisition

Key skills include:

- use of correct anatomical terminology to identify bones, muscles, joints and joint actions used in human movement
- performance, observation and analysis of a variety of movements used in physical activity and the identification of the bones, muscles, joints and joint actions responsible for movement
- use of correct terminology to identify muscle fibre types and muscular contractions required to perform a variety of activities at different intensities, including reciprocal inhibition
- performance, measurement and reporting on changes to the cardiovascular, respiratory and muscular systems at rest compared to exercise
- identification of the dominant energy pathway utilised in a variety of aerobic or anaerobic activities determined by the intensity and duration of the activity
- collection, analysis and reporting on primary data related to responses to exercise and anaerobic and aerobic pathways, and skill acquisition and proficiency.

Victorian Curriculum Assessment Areas:

- Movement & Physical Activity
- Personal, Social and Community Health

YEAR 10 HEALTH AND PHYSICAL EDUCATION

What the Health? An introduction to VCE HHD- Elective

Semester Overview:

Students will explore the developmental milestones experienced at a range of lifespan stages including pre-natal, infancy, youth and adulthood. Multiple aspects of development will be addressed to give a well-rounded understanding of the concept of individual human development. Students will analyse behaviours and contextual factors that influence the health and wellbeing of their communities. In response to their findings they will plan, promote and implement a health promotion activity for a nominated target group within the Viewbank College community.

Elaborations:

This subject is recommended for students who may be interested in Health and Human Development at the VCE level.

Theoretical components will focus on:

- Physical, social, emotional and intellectual developmental characteristics experienced at a range of lifespan stages.
- (Optional) Experience 'real life' parenting by looking after the Real Care Baby for a night.
- Identification of health issues for youth and exploring opportunities for advocacy.
- Investigating behaviours and contextual factors that influence the health and wellbeing of their communities
- Planning and implementing strategies to enhance the health, safety and wellbeing of their communities
- Devising, implementing and refining strategies demonstrating leadership and collaboration skills when working in groups or teams.

Victorian Curriculum Assessment Areas:

- Personal
- Social and Community Health

YEAR 10 HUMANITIES

Accounting – Elective

Semester Overview:

Accounting is the process of recording, reporting and decision-making in a business context. As part of this course, students are introduced to both theoretical and practical aspects of accounting. Financial data will be collected and recorded and accounting information reported. Students will learn how to analyse and interpret accounting reports for business decision-making. Students will develop an appreciation of the integral role of accounting in the successful operation and management of a business.

Elaborations:

During the semester, students study the accounting equation, recording in cash journals, preparing accounting reports and interpreting accounting information for business decision-making. Students will investigate the role of accounting in the generation of financial data and reporting of accounting information for the owner of a service business.

Students will learn:

- Reasons for establishing a business and the resources required to start a business
- The importance of accounting in the successful operation and management of business
- How to record, report and analyse the financial transactions of a small business
- The application of recording and reporting on profit to management decision-making
- The role and benefits of cash and profit budgeting in planning and control

Students will be able to:

- Use reasoning and interpretation skills to make informed decisions and report financial information to business stakeholders
- Record and explain financial data, creating reports consisting of accounting information using a single entry recording system
- Recognise and apply generally accepted accounting assumptions and qualitative characteristics of accounting information

Victorian Curriculum Assessment Areas:

- Consumer and Financial Literacy
- Economic and Business Reasoning and Interpretation

Students will be assessed through classwork, assignments, case studies, topic tests and an end-of-semester exam.

Additional Information:

Students must have their own non-graphics calculator and bring it to every class.

YEAR 10 HUMANITIES

Art History (*History* - Elective)

Semester Overview:

In this subject, students will be introduced to selected components of the art historical cannon. The study will provide a survey exploring some key artists, movements and concepts that have been recognised and interpreted as significant in the development and exploration of artistic periods. The focus will be on the analysis of artistic works and how these represent the cultural, social, economic and political events of the period under study. The subject will commence with asking questions about the representation of Aboriginal culture, before and during colonisation in Australia, progressing to how Western perceptions of art have been informed through influential movements in Europe such as through the art of the ancients, the Renaissance and later eighteenth and nineteenth century artistic schools. This will be followed by a study of modern art in a global setting, before returning to a look at contemporary Australian art and institutional practices closer to home in Melbourne. The overarching question to guide students' learning will be – what can we see and what might this tell us?

Elaborations:

This elective will have a multi-disciplinary emphasis, with students drawing upon knowledge and skills across Visual Arts, History and English disciplines, as aligned with the Victorian Curriculum. The subject has been designed to enhance students' analytical and critical thinking skills, build empathy through providing exposure and insight to different experiences, perspectives and subjectivities and support ways of learning and communicating that will be valued in future settings and contexts.

Through the course, students will learn to:

Critical and Creative Thinking:

- Suspend judgements to allow new possibilities to emerge and investigate this can broaden ideas and solutions;
- Critically examine their own and others thinking processes and discuss factors that influence thinking, including cognitive biases;

Visual Arts:

- Analyse and interpret artworks to explore different forms of expression, intentions and viewpoints of artist and
- Analyse, interpret and evaluate a range of visual artworks from different cultures, historical and contemporary contexts and Torres Strait Islander Peoples to explore differing viewpoints

English:

- Understand that people's evaluations of texts are influence by their value systems, the context and the purpose and mode of communication;
- Evaluate the impact on audiences of different choices in the representation of still and moving images;
- Evaluate the social, moral and ethical positions represented in texts;
- Identify, explain and discuss how devices, including analogy and satire, shape different interpretations and responses to a text;

History:

- Analyse the different perspectives of people in the past and evaluate how these perspectives are influenced by significant beliefs and values
- Analyse different experiences and perspectives of non-Europeans and their perspectives on changes to society
- Investigate patterns of continuity and change and their effects on influencing movements of people, ways of life and living conditions, the role of institutions, and cultural expression around the turn of the twentieth century

Victorian Curriculum Assessment Areas:

- Historical Concepts and Skills
- Visual Arts – Respond and Interpret
- Creative and Critical Thinking – Questions and Possibilities
- English – Reading and Viewing (Literature)

Additional Information:

- This subject will not include any practical component;
- This subject will occasionally utilise representations of the nude;
- This subject will require an excursion to the National Gallery of Victoria International and the National Gallery of Victoria Australia. The subject will also include an incursion from a practising contemporary artist ($30 fee to be included in Year 10 'Schedule of Fees)

YEAR 10 HUMANITIES

Degradation and Development (*Geography* – Elective)

Semester Overview:

In this subject, students consider current geographical issues and how they relate to human development and environmental degradation. They consider significant spatial distributions and patterns and evaluate their implications. They consider interconnections between and within places and changes resulting from these, over time and at different scales. This further develops their understanding of geographical concepts, including place, space and interconnection. Students make use of geospatial technologies in their investigations, and a fieldwork component forms part of the course.

Elaborations:

Geographical knowledge

- Different types and distribution of environmental changes and the forms it takes in different places
- Environmental, economic and technological factors that influence environmental change and human responses to its management
- Environmental worldviews of people and their implications for environmental management
- Causes and consequences of an environmental change, comparing examples from Australia and at least one other country
- Application of environmental economic and social criteria in evaluating management responses to an environmental change, and the predicted outcomes and further consequences of management responses on the environment and places, comparing examples from Australia and at least one other country.
- Interconnecting causes of spatial variations between countries in selected indicators of human wellbeing
- Reasons and consequences for spatial variations in human wellbeing on a regional scale within India or another country of the Asia region; and on a local scale in Australia
- Different ways of measuring and mapping human wellbeing and development, and how these can be applied to measure differences between places
- Issues affecting the development of places and their impact on human wellbeing, drawing on a study from a developing country or region in Africa, South America or the Pacific Islands
- Role of initiatives by international and national government and non-government organisations to improve human wellbeing in Australia and other countries.

Geographical Concepts and Skills

- Predict changes in the characteristics of places over time and identify the possible implications of change for the future
- Identify, analyse and explain significant spatial distributions and patterns and identify and evaluate their implications over time and at different scales
- Identify, analyse and explain significant interconnections within places and between places over time and at different scales, and evaluate the resulting changes and further consequences
- Collect and record relevant geographical data and information, using ethical protocols, from reliable and useful primary and secondary sources
- Select, organise and represent data and information in different forms, including by constructing special purpose maps that conform to cartographic conventions, using digital and spatial technologies as appropriate
- Analyse and evaluate data, maps and other geographical information using digital and spatial technologies and Geographical Information Systems as appropriate, to develop identifications, descriptions, explanations and conclusions that use geographical terminology.

Victorian Curriculum Assessment Areas:

- Geographical Knowledge
- Geographical Concepts and Skills

Materials Charge:

There will be a fieldwork trip throughout the year as it a component of this course. The excursion will be advised at a later date.

YEAR 10 HUMANITIES

Economics and Business - Elective

Semester Overview:

Students will develop their understanding of how the Australian economy is managed, particularly within the international economic context. They will examine the role of exchange, trade and globalisation in influencing Australia's standard of living and will develop an understanding of the impact of innovation and business on the economy and society. Students will also investigate the relationship between economic growth, ecological sustainability and the standard of living, and explore what it means to be an ethical producer and consumer. Students will explore the way individuals, families, the community, businesses and governments make decisions to the allocation of resources. This study aims to enable students to understand the process of economic and business decision-making and its effects on themselves and others, now and in the future.

Elaborations:

Students will learn:

- that markets, government policies, enterprise and innovation affect the economy, society and environment in terms of employment, economic growth, the use of resources, exports and imports and ecological sustainability
- how goods and services are produced and how markets work and that prices will change when there is either a surplus or shortage
- to discuss and explain what it means to be an ethical consumer and producer
- factors that influence major business and financial decisions and the short and long-term consequences of these decisions
- the ways businesses organise themselves to improve productivity, including the ways they manage their workforce and how they respond to changing economic conditions

Students will be able to:

- use economic reasoning, including cost-benefit analysis, to research and propose solutions to economic issues and problems of global significance
- use relevant economic concepts and relationships to evaluate economic propositions, proposals and policies and debate the costs and benefits of contentious economics-related issues of local, national or international concern
- apply economics and business knowledge, skills and concepts in familiar, new and hypothetical situations.

Victorian Curriculum Assessment Areas:

- Resource Allocation and Making Choices
- The Business Environment
- Enterprising Behaviours and Capabilities
- Economic and Business Reasoning and Interpretation.

Students will be assessed through class work, assignments, case studies, topics tests and an end-of-semester

YEAR 10 HUMANITIES

Get up, stand up! Movements, rights and freedoms in Australian society – (*History* – Elective)

Semester Overview:

Students will investigate the social and political changes that have taken place in Australian society during the 20th and 21st centuries as a result of key social movements and global developments. Topics for investigation include the role of popular music in social change and the women's and Indigenous rights movements. Students analyse the different strategies used by social and political forces to shape public understandings and influence policy. These changes are considered within the context of the Australian political system, including the nature of liberal democracy and features of the Australian parliamentary and electoral systems.

Elaborations:

Students will learn:

- the role of popular music within movements for social change in Australia over time
- the role of political parties in Australia's system of government, including the formation of governments, and the process through which government policy is shaped and developed
- how citizens' political choices are shaped, including the influence of the media and of global events
- key struggles in the women's movement over the 20th and 21st centuries, including female suffrage, equal pay, reproductive rights, countering violence and sexual assault, rights in the workplace, and equality of representation
- the struggle of Aboriginal and Torres Strait Islander peoples for rights and freedoms before 1965
- key events in changing society: 1962 right to vote federally, 1967 Referendum, Reconciliation, Mabo decision, Bringing Them Home Report (the Stolen Generations), the national Apology.

Students will be able to:

- Analyse contemporary examples and issues relating to Australian democracy
- Evaluate different historical interpretations and contested debates
- Identify, gather and sort information and ideas from a range of sources
- Use appropriate terms and concepts such as active citizenship, civil rights, democracy, policy, globalisation, pluralism.

Victorian Curriculum Assessment Areas:

Civics and Citizenship: Government and Democracy, Citizenship, Diversity and Identity

History: Rights and Freedoms (1945 – the present)

Students will be assessed through class work, research projects, essays, assignments, case studies, topic tests and an end of semester exam.

Additional Information:

Reliable home internet access will be necessary in order to conduct research and keep well informed.

YEAR 10 HUMANITIES

Global Issues - Elective

Semester Overview:

Students study contemporary power at the global level and explore, explain and evaluate global political issues, problems and events, the forces that shape these and responses to them. In doing so, they examine the nature and effectiveness of key global actors in their response to global challenges such as the global refugee crisis, development issues, war and terrorism and climate change. Students are taught to develop a critical understanding of the world in which they live and build the knowledge, awareness and analytical skills that underpin active global citizenship.

Content will be selected from the following topics:

- Concepts of global citizenship
- Historical and contemporary explanations for poverty in the Global South
- Empowerment through education (gender discrimination, universal access to schooling and development)
- Case study of war and conflict: the Israel / Palestine conflict
- Global terrorism and the rise of violent extremism
- The global refugee crisis and international responses
- Global responses to climate change

Elaborations:

Victorian Curriculum Assessment Areas:

- Historical concepts and skills
- Historical knowledge
- Civic knowledge and understanding

Links to VCE Global Politics
Students will learn how to:

- understand and use key political terminology
- understand contemporary politics and power in a global context
- analyse global issues and challenges and the key actors which influence these
- evaluate the effectiveness of responses to global crises
- develop skills in logical and rational analysis, synthesis and argument.

YEAR 10 HUMANITIES

Legal Studies – Elective

Semester Overview:

Students will learn about Australia's legal and parliamentary systems, exploring how they enable change, progression and social cohesion. Students develop an understanding of various branches of laws in society, focussing on the comparison of the two main branches; criminal and civil law. Students also examine the operation of parliament and their primary role as law-makers. They will investigate courts within the Victorian court hierarchy, including their roles in interpreting, applying and creating laws to supplement parliament's role in society, and examine the advantages and disadvantages of the jury system.

Elaborations:

Students will learn:

- The need for laws and the various branches of law within Australia's legal system
- The characteristics that makes laws effective
- Key features of Australia's government and parliament
- Elements and differing features between criminal and civil law
- The key features of Australia's court system, including jurisdictions and how courts apply and interpret the law, resolve disputes and make law through judgments
- How laws are made in Australia, including through parliaments (statutory law) and courts (common law)
- Key principles of Australia's justice system, including equality before the law, independent judiciary, and right of appeal.

Students will be able to:

- Develop, select and evaluate a range of questions to investigate Australia's legal system
- Investigate changes in the law and the relationship between courts and parliament
- Identify, gather and sort information and ideas from a range of sources and references
- Use appropriate terms and concepts, such as jurisdictions, government, parliament and adversary system

Victorian Curriculum Assessment Areas:

- Civics and Citizenship
    - Government and democracy
    - Laws and citizens
    - Citizenship, diversity and identity

Students will be assessed through class work and targeted learning activities, common assessment tasks, case studies, topics tests and an end-of-semester exam.

YEAR 10 HUMANITIES

The World at War – (*History* – Elective)

Semester Overview:

Students will develop their understanding of the history of the World Wars from 1918 to 1945, with an emphasis on Australia in its global context. The twentieth century was a critical period in Australia's social, cultural, economic and political development. Students will investigate topics around the transformation of the modern world during a time of political turmoil, global conflict and international cooperation to gain an understanding of Australia's development, its place within the Asia-Pacific region and its global standing. It covers the causes of World War I, the 'war to end all wars', the interwar period between 1918 and 1939, including the treaty of Versailles, the roaring twenties, the Great Depression, the League of Nations and the rise of communism and fascism. Students will also develop their understanding of World War II, including alliances, major battles, the Holocaust, Australia's involvement in World War II on the Western Front and in the Pacific region, and the conclusion and lasting effects following World War II. Students will develop their historical knowledge, understanding and skills by inquiry questions and through the use and interpretation of sources.

Elaborations:

Historical Knowledge

Students will:

- Explore key events, turning points of World War I and the nature of warfare. This includes a study of the causes, events, outcome and broader impact of the conflict as an episode in world history, and the nature of Australia's involvement.
- Analyse significant events and turning points of the war and the nature of warfare
- Explain the significance of World War I to Australia's international relationships in the twentieth century, with particular reference to the Britain, the USA and Asia
- Explain the effects of World War I, with a particular emphasis on the changes and continuities brought to the Australian home front and society
- Evaluate different historical interpretations and contested debates about World War I and the significance of Australian commemorations of the war
- Gain an overview of the inter-war years between World War I and World War II, including the Treaty of Versailles, the Roaring Twenties and the Great Depression.
- Investigate Australian wartime perspectives and experiences through an in-depth study of World War II.
- Explore key events, turning points of World War II and the nature of warfare. This includes a study of the causes, events, outcome and broader impact of the conflict as an episode in world history, and the nature of Australia's involvement.
- Determine the effects of World War II, with a particular emphasis on the changes and continuities brought to the Australian home front and society.
- Explain the significance of World War II to Australia's international relationships in the twentieth century.
- Consider different historical interpretations and contested debates about World War II.

Historical concepts and skills

Students will be able to:

- Sequence significant events in chronological order to support analysis of the causes and effects of these events and identify the changes they brought about
- Analyse and corroborate sources and evaluate their accuracy, usefulness and reliability
- Analyse the different perspectives of people in the past and evaluate how these perspectives are influenced by significant events, ideas, location, beliefs and values
- Evaluate different historical interpretations and contested debates
- Identify and evaluate patterns of continuity and change in the development of the modern world and Australia
- Analyse the long-term causes, short-term triggers and the intended and unintended effects of significant events and developments
- Evaluate the historical significance of an event, idea, individual or place.

Victorian Curriculum Assessment Areas:

- Historical Knowledge
- Historical Concepts and Skills
- *Students will be assessed through class work, assignments, source analyses, case studies, topics tests and an end-of-semester exam.*

YEAR 10 LANGUAGES

German – Elective

Semesters 1 & 2 Overview

In Year 10 German, students initiate and maintain interactions in written and spoken German to communicate information related to relationships, school experiences and the community. They give opinions, explain problems and ask for advice or clarification. Students deepen their understanding of, and ability to apply, linguistic variations by using descriptive and expressive vocabulary to communicate experiences and emotions. Students create personal, descriptive, informative and imaginative texts for different purposes, audiences, and contexts. They translate and interpret informative and imaginative texts. When transferring meaning between languages and cultures, they identify and explain the challenges and adjustments required. Students explain how cultural identity is both shaped by and influences ways of communicating and thinking. This year-long course assumes that students have studied German at Year 9 level.

Elaborations:

Communicating

Socialising: Interact with others to make decisions and solve problems to complete tasks such as obtaining goods or services, and negotiate with peers to take individual and/or collective action.

Informing: Present information and opinions in different modes and familiar text types appropriate to audience, context and purpose, applying conventions of text types.
Creating: Create a variety of imaginative texts to entertain, convey ideas and express emotions.

Translating: Create bilingual texts such as captions, glossaries or footnotes to interpret cultural and linguistic aspects of texts.
Reflecting: Reflect on self as a language user and discuss own and others' cultural identity.

Understanding

Systems of language: Students continue to extend their knowledge of German grammar and identify, comprehend and create a range of different text types.

Language variation and change: Understand that language has power and changes over time as a result of contact with other languages and with influences such as globalisation and new technologies and knowledge.

The role of language and culture: Students further explore the relationship between language, culture and communication and how this impacts on attitudes and beliefs.

Victorian Curriculum Assessment Areas:

- Communicating
- Understanding.

YEAR 10 LANGUAGES

Japanese – Elective

Semesters 1 & 2 Overview:

The Japanese curriculum aims to develop the knowledge, understanding and skills to ensure that students can communicate in Japanese with an understanding of the relationship between language and culture. They initiate and maintain interactions in written and spoken Japanese using increasingly sophisticated grammatical structures and further develop their knowledge of kanji. Students create texts for different audiences, purposes and contexts, identifying and making adjustments when transferring meaning between languages and cultures. Students reflect on communication, identity and culture.

This year long course assumes that students have studied Japanese at Year 9 level.

Elaborations:

Communicating

Socialising: With support, students initiate and sustain interactions, using both rehearsed and spontaneous language.
Informing: Using a range of texts, students will access and analyse information and present it appropriately.
Creating: Students create and present informative and imaginative texts, taking into account audience and purpose.
Translating: Students translate and interpret texts, making adjustments when transferring meaning between languages and cultures.
Reflecting: Students participate in intercultural interactions and reflect on communication, identity and culture.

Understanding

Systems of language: Students identify the functions of different scripts within texts. They extend their understanding of both grammatical structures and text types and use metalanguage to describe and compare language features and rules of sentence construction.
Language variation and change: Students recognise variations in language use that reflect different social and cultural contexts, purposes and relationships. Furthermore, they will learn that languages change over time through contact with other languages and cultures.
The role of language and culture: Students will explore the relationship between language, culture and communication and how this impacts on attitudes and beliefs. They will recognise and explain how the Japanese language carries embedded cultural information, such as the prioritising of collective well-being, respect and harmony.

Victorian Curriculum Languages – Japanese Assessment Areas:

- Communicating
- Understanding

YEAR 10 MATHEMATICS

Core - Mathematics Further

This course has been designed to build on previous studies in Mathematics and to provide a solid foundation for future studies in VCE General Mathematics (Further) Units 1 and 2.

Semester 1 Overview:

Students will review index laws and their application to algebraic terms as well as investigate the use and application of significant figures. Parallel and perpendicular lines, angle and triangle properties, similarity, trigonometry and congruence will be investigated for their practical use in solving problems. Students will solve problems involving linear equations, including those derived from formulas with and without the use of digital and CAS technology, including problems involving gradients of parallel and perpendicular lines. They will represent linear functions numerically, graphically and algebraically, use them to model situations, and solve problems. Students will solve problems involving the surface area of prisms, cylinders, pyramids, cones and related composite solids. The application of Pythagoras' theorem and trigonometry to solving in right-angled triangles will be explored.

Elaborations:

Number and Algebra

Students will:

- Use the distributive law and index laws to factorise algebraic expressions as well as understand the relationship between factorisation and expansion.
- Apply knowledge of index laws to algebraic terms, and simplify algebraic expressions using both positive and negative indices.
- Use the index laws to simplify products and quotients of algebraic fractions.
- Rearrange expressions to make a specified variable the subject, such as in formulas relating to measurement and surface area
- Represent word problems with simple linear equations and solving them to answer questions.
- Sketch linear graphs from formulas as well as those derived from worded problems.

Measurement and Geometry

Students will:

- Investigate similar triangles and angle properties.
- Investigating and determining the volumes and surface areas of composite solids by considering the individual solids from which they are constructed.
- Apply Pythagoras' Theorem and trigonometry to solve right-angled problems including those involving direction and angles of elevation and depression such as in surveying and design.
- Performing a sequence of steps to determine an unknown angle giving a justification in moving from one step to the next.

Semester 2 Overview:

Students will investigate the process of solving simultaneous linear equations, using algebraic and graphical techniques including using digital technology. Univariate and bivariate data will be discussed as students compare data sets by referring to summary statistics and the shape of their displays as well as evaluating the use of statistics in everyday situations. Students will investigate how to list outcomes for multi-step chance experiments involving independent and dependent events, and assign probabilities for these experiments. Students will be introduced to matrices, perform matrix arithmetic as well as discuss conditions for their use. Matrices will also be investigated as a tool for encoding and decoding information.

Elaborations:

Number and Algebra

Students will:

- Use matrices to store and display information
- Identify matrix properties and determine their order
- Use matrix operations to model and solve problems
- Solve word problems that involve the setting up of a pair of simultaneous linear equations and solving these systems with and without the use of digital technology
- Solve equations using systematic guess-check-and-refine with digital technologies

Statistics and Probability

Students will:

- Construct back-to-back stem-and-leaf plots and histograms and describe data, using terms including 'skewed', 'symmetric' and 'bi modal'.
- Find the five-number summary (minimum and maximum values, median and upper and lower quartiles) use its graphical representation, the box plot, as tools for both numerically and visually comparing the centre and spread of data sets.
- Construct and interpret box plots and use them to compare data sets. They will also understand that box plots are an efficient and common way of representing and summarising data.
- Investigate data in different ways to make comparisons and draw conclusions, such as constructing scatter plots.
- Describe the results of two and three-step chance experiments, both with and without replacements and assign probabilities to outcomes and determine probabilities of events.

Victorian Curriculum Assessment Areas:

Number and Algebra
Geometry and Measurement
Statistics and Probability

Additional Information:

Students will require an approved CAS calculator as prescribed on the booklist.

Please refer to page 155 for further information on Mathematics pathways.

YEAR 10 MATHEMATICS

Core - Mathematics Methods

This course has been designed to build on previous studies in Mathematics and to provide a solid foundation for future studies in VCE Mathematical Methods.

Semester 1 Overview:

Students will be introduced to matrices and their use, including matrix products and powers, to model practical situations and solve a range of related problems. Inverse matrices and their applications will also be discussed. Students will apply logical reasoning, including the use of similarity and the application of angle and chord properties of circles, to numerical exercises involving plane shapes. The solution of right-angled triangle problems including those involving direction and the angles of elevation and depression will be explored as direct applications of Pythagoras' Theorem and the trigonometric ratios. A variety of strategies to factorise monic and non-monic quadratic expressions will be explored and applied when solving problems involving these functions. Students will solve problems involving surface area and volume for a range of prisms, cylinders, right pyramids, right cones, spheres and related composite solids.

Elaborations:

Number and Algebra

Students will:

- Investigate the concept of a matrix and their use, including matrix products and powers to model and solve problems as well as inverse matrices and their applications including solving a system of simultaneous linear equations.
- Apply knowledge of index laws to algebraic terms and simplify algebraic expressions using both positive and negative integral indices.
- Identify and use common factors, including binomial expressions to factorise algebraic expressions using the technique of 'grouping in pairs'.
- Use the identities for perfect squares and the difference of squares to factorise quadratic expressions.
- Explore the connection between algebraic and graphical representations of quadratic functions.
- Use a variety of techniques to factorise and solve monic and non-monic quadratic equations, including grouping, the quadratic formula and choosing two integers with the required product and sum.
- Write quadratic equations that represent practical problems and apply correct procedures for the solution.

Measurement and Geometry

Students will:

- Apply an understanding of relationships to deduce properties of geometric figures.
- Apply logical reasoning, including the use of congruence and similarity, to communicate a proof using a sequence of logically connected statements.
- Apply angle and chord properties of circles to perform sequences of steps to determine and unknown angle or length, giving a justification in moving from one step to the next.
- Apply Pythagoras' Theorem and trigonometric ratios to solve right-angled triangle problems including those involving direction and angles of elevation and depression.

Semester 2 Overview:

Students will solve problems involving gradients of parallel and perpendicular lines as well as investigating the processes involved for solving simultaneous linear equations, using algebraic and graphical techniques including using digital technology. Students will solve problems involving quadratic equations and their related graphs, with and without the use of digital technology. Quadratic functions will continue to be investigated and represented graphically and used to model situations and to solve practical problems. They will describe results of two and three-step chance experiments, both with and without replacements, and assign probabilities to outcomes and determine probabilities of events. Students will investigate the concept of independence and conditional statements and identify common errors in interpreting such language in the area of probability.

Elaborations:

Number and Algebra

Students will:

- Solve problems using the fact that parallel lines have the same gradient and that the product of the gradients of perpendicular lines is – 1.
- Solve equations using systematic guess-check-and-refine with digital technology.
- Representing word problems with simultaneous equations and solving them to answer questions.
- Sketch graphs of parabolas and apply translations, reflections and stretches to these graphs.

Statistics and Probability

Students will:

- Describe results of chance experiments, both with and without replacements, as well as assign probabilities to outcomes and determine probabilities of events.
- Investigate the concept of independence and recognise that some events can be dependent on preceding events which will affect the way its probability is calculated.
- Use two-way tables, Venn diagrams and tree diagrams to determine probabilities with and without conditional events.

Victorian Curriculum Assessment Areas:

Number and Algebra
Geometry and Measurement
Statistics and Probability

Additional Information:

Students will require an approved CAS calculator as prescribed on the booklist.

Please refer to page 155 for further information on Mathematics pathways.

YEAR 10 MATHEMATICS

Elective Maths Methods - Elective

This course has been designed to be take in addition to Core Methods to improve the competencies in the areas of Number and Algebra and Measurement and Geometry in preparation for Mathematical Methods Units 1 & 2.

Semester Overview:

Students will define rational and irrational numbers and perform operations with surds and fractional indices. They will use the unit circle to define trigonometric functions, and graph them with and without the use of digital technologies. Solving simple trigonometric equations using periodicity and symmetry will be investigated. A variety of techniques to solve quadratic equations, including completing the square and the quadratic formula will be discussed when solving quadratic equations derived from a variety of contexts. Students will describe, interpret and sketch parabolas and their transformations. Students will be introduced to the definition of logarithms and use this to establish and apply the laws of logarithms and investigate logarithmic scales in measurement. They will investigate the concept of a polynomial and apply the factor and remainder theorems to solve problems.

Elaborations:

Number and Algebra

Students will:

- Learn the definition of the rational and irrational number sets and perform operations with surds and fractional indices.
- Investigate the relationship between exponential and logarithmic expressions as well as simplifying expressions using the logarithm laws.
- Investigate the use of logarithmic scales to represent very small and very large quantities.
- Investigate the relationship between algebraic long division and the factor and remainder theorems.
- Describe, interpret and sketch parabolas and their transformations.
- Factorise monic and non-monic quadratic expressions and solve a wide range of quadratic equations derived from a variety of contexts
- Use function notation to describe the relationship between dependent and independent variables in modelling contexts.

Measurement and Geometry

Students will:

- Use the unit circle to define trigonometric functions as functions of a real variable, and graph them with and without the use of digital technologies.
- Establish the symmetrical properties of trigonometric functions.
- Investigate points on the unit circle via arc lengths in radians, which correspond to specified values of the circular functions
- Solve simple trigonometric equations with and without technology.

Victorian Curriculum Assessment Areas:

Number and Algebra
Geometry and Measurement

Additional Information:

Students will require an approved CAS calculator as prescribed on the booklist.

Please refer to page 155 for further information on Mathematics pathways.

YEAR 10 MATHEMATICS

VCE Foundation Mathematics – Units 1 & 2

Course Description

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. 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.

Unit 1 Details

In this unit students will apply the use of integers, decimals, fractions, ratios, proportions, percentages and rates to solve practical problems. They will use and interpret formulas and algebraic expressions to describe relationships between variables and to model patterns that exist in everyday contexts. Procedures for the solution of expressions and equations will be discussed and used to solve problems including predicting a required quantity or finding a break-even point. Students will apply and use metric units and measures, including derived measures. They will apply procedures for the solution of personal, societal and workplace problems involving metric measurement with consideration of error, required accuracy and tolerances. They will interpret and use time and duration including time and date specifications, conventions, schedules, timetables and time zones.

Areas of Study:

- Patterns and number
- Measurement

Unit 2 Details

In this unit students will investigate how to interpret and use plans, elevations, maps, models and diagrams. They will investigate geometric conventions and properties of shapes and objects, the application and use of similarity and symmetry and the processes involved in the enlargement and reduction of diagrams and models. The interpretation and use of location, distance, direction and scale on diagrams, maps and plans will be discussed in regards to their use in practical situations. Students will study the application of Pythagoras' theorem in practical situations involving right-angled triangles. They will cover the processes involved in the collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts. Students will interpret diagrams, charts, tables and graphs and use measures of averages and spread to summarise, interpret and compare data sets.

Areas of Study:

- Space, shape and design
- Data

Assessment:

Students will be required to satisfactorily complete:

- Investigations
- Projects
- Assignments
- Tests
- Semesters 1 and 2 Exams

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Foundation Mathematics.

Additional Information:

Students are expected to have a calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 10 MATHEMATICS

VCE General Mathematics (Advanced) – Units 1 & 2 – Core

Course Description

This course has been designed to build on previous studies in Mathematics and to provide a solid foundation for future studies in VCE Mathematical Methods Units 1 and 2 and also serves as an introduction to a number of different areas of study undertaken in Specialist Mathematics.

Unit 1 Details

In this unit students will be introduced to matrices and their use, including matrix products and powers, to model practical situations and solve a range of related problems. Inverse matrices and their applications will also be discussed. Students will covered trigonometry and their application to formulating and solving two- and three-dimensional problems involving right-angled and non-right-angled triangles. The principles of counting will be discussed including techniques of counting such as permutations and combinations and the inclusion-exclusion principle as well as investigating the identities involving Pascal's triangle. Students cover representation and manipulation of linear relations and equations, including simultaneous linear equations, and their applications in a range of contexts. Polynomial functions, namely quadratics and cubics, will be investigated and the techniques for the solution of these polynomial equations will also be explored algebraically.

Areas of Study:

- Discrete mathematics
- Geometry, measurement and trigonometry
- Arithmetic and number
- Algebra and structure
- Functions and graphs

Unit 2 Details

In this unit students will investigate relationships between two numerical variables. This will involve discussing the use of scatterplots in identifying and describing the association between two numerical variables, the Pearson correlation coefficient and the use of the least squares line to make predictions. Students will be introduced to linear programming problems which will involve investigating the concept of feasible regions, constraints, objective functions and the use of the corner-point principle to determine the optimal solution. Rates of change will be discussed and will be part of the introduction of the topic of calculus. This will include discussing derivatives and anti-derivatives of simple power functions and polynomial functions by rule. Applications of differentiation will also be investigated, including finding stationary values of functions, local maxima or minima, analysing graphs of functions and solving maximum and minimum problems. Students will be introduced to vectors and will represent plane vectors as directed line segments, examples of which will involve position, displacement and velocity. Applications of vectors to geometric proofs, orienteering and navigation will also be investigated. Students will also cover the topic of kinematics as well as the modelling and analysis of motion under constant acceleration, including the use of constant acceleration formulas will be discussed.

Areas of Study:

- Statistics
- Graphs of linear and non-linear relations
- Calculus
- Vectors
- Kinematics

Assessment:

Students will be required to satisfactorily complete:

- Tests
- Modelling tasks
- Problem solving tasks
- Mathematical investigations
- Semesters 1 and 2 Exams

Prerequisites: Students in the EA program and selected other students may receive a College Invitation to undertake this subject. Additional Information: Students must have a TI-Nspire CAS calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 10 SCIENCE

Atomic Chemistry and Physics

Semester Overview:

Students will learn about how energy can be stored, transformed and used. Students will use rockets as a system to examine how objects move and how this motion can be represented either graphically or with equations. Students also look at chemical reactions, with a focus on how the rate of a chemical reaction can be altered. The ideas used to explain why chemical reactions occur, based on the structure of atoms is explored in this subject. Students will design and undertake scientific investigations, evaluate their results and communicate their findings using scientific conventions.

This subject is recommended for students who may be interested in VCE Chemistry and/or VCE Physics. It aims to prepare students for either VCE subject as well as introduce students to applications of Chemistry and Physics in society.

Elaborations:

Physical Sciences

Students will learn:

- How to represent motion graphically
- Newton's Laws of Motion
- That energy transformations and exchanges can be described using laws of physics.

Chemical Sciences

Students will learn:

- The structure of atoms and the properties of elements that are used to organise them in the Periodic Table
- About energy conservations and transformations
- About factors that can make chemical reactions go faster or slower.

Students will be able to:

- Formulate questions or hypotheses that can be investigated scientifically
- Plan, select and use appropriate investigation methods
- Consider possible independent and dependent variables and ensuring these are controlled appropriately
- Analyse patterns and trends in data, including identifying inconsistencies
- Communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language and representations.

Victorian Curriculum Assessment Areas:

- Science Understanding – Chemical sciences
- Science Understanding – Physical sciences
- Science Understanding – Science as a human endeavour
- Science Inquiry Skills

YEAR 10 SCIENCE

Biology & Chemistry of Life

Semester Overview:

Students will learn how scientific theories can be used to explain the diversity of life on Earth. These theories are based on evidence and observations and can be used to make predictions and be refined over time. Students will explore the role of DNA and genes in cell division and genetic inheritance. The atomic structure of elements can be used to organise the elements in the Periodic Table. The life-sustaining reactions of photosynthesis and respiration are explored in depth to understand atomic bonding and chemical equations. The factors that control the speed of these reactions is also examined. Students will develop questions and hypotheses that can be investigated. Students design appropriate methods of determining the variables to be investigated and how to accurately collect data. Students analyse trends in data and identify sources of error.

This subject is recommended for students who may be interested in VCE Chemistry and/or VCE Biology. It aims to prepare students for either VCE subject as well as introduce students to applications of Chemistry and Biology in society.

Elaborations:

Biological Sciences
Students will learn:

- How to describe the role of DNA as the blueprint for controlling the characteristics of organisms
- the relationship between DNA, genes and chromosomes
- that genetic information is passed to gametes by meiosis
- to represent patterns of inheritance through Punnett Squares and Pedigree Charts
- how to predict simple ratios of offspring genotypes and phenotypes
- how mutations are related to changes in DNA
- about the processes involved in natural selection including variation and selection.

Chemical Sciences
Students will learn:

- how to explain how the structure of an atom determines its position in the periodic table
- about factors that can make chemical reactions go faster or slower.

Students will be able to:

- formulate questions or hypotheses that can be investigated scientifically
- plan, select and use appropriate investigation methods
- consider possible independent and dependent variables and ensuring these are controlled appropriately
- analyse patterns and trends in data, including identifying inconsistencies
- communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language and representations.

Victorian Curriculum Assessment Areas:

- Science Understanding – Biological sciences
- Science Understanding – Chemical sciences
- Science Understanding – Science as a human endeavour
- Science Inquiry Skills
- Critical and Creative Thinking

YEAR 10 SCIENCE

Psychology - Elective

Semester Overview:

The Year 10 course aims to provide an introductory overview of the study of human thoughts, feelings and behaviour. Topics studied will cover a wide range of psychological fields and related issues. The course has been designed to provide a thought provoking exploration of how we have developed into the individuals that we are today. Practical activities, videos and small-scale research investigations will provide an engaging and accessible introduction to the science of Psychology. Year 10 Psychology is highly recommended to all students considering completing Psychology at VCE level.

Elaborations:

Key knowledge and understanding

Students will learn a selection of:

- what psychologists practise in a range of areas and workplaces. They will learn about the different types of Psychologists and their roles in helping the community
- about the structure of the brain and nervous system and how it plays a central role in the control of our thoughts, feelings and behaviours
- the intricate details of what it is like to be a forensic psychologist – what their role is and with whom they work
- how sports psychologists play a large role in the motivation of sporting people
- the prevalence of mental health in society and how psychologists can work to reduce the stigmas associated with having a mental illness
- how personality and intelligence are enduring traits that cannot be changed and how they influence our behaviour
- the manipulation and improvement of memory.

Victorian Curriculum Assessment Areas:

- Science Understanding
- Science as a Human Endeavour
- Science Inquiry Skills.

YEAR 10 SCIENCE

Science^2 (Squared) - Core

This subject provides a year-long course and has been designed for students who have a keen interest in Science and are looking to continue to explore and deepen their scientific understanding. The course will provide strong foundations and direct pathways for all VCE Sciences (Biology, Chemistry, Physics and Psychology). It will also cater for students who would like a deeper understanding of the relationship between scientific developments and society.

Semester 1 Overview:

Students will develop their understanding of how the Universe began and the evidence that supports the Big Bang Theory. They will then examine the role that stars play in the formation of elements and how the elements that exist on Earth were created in stars. Students will examine how the elements are arranged in the Periodic table. Students also look at chemical reactions, with a focus on how the rate of a chemical reaction can be altered. The ideas used to explain why chemical reactions occur, based on the structure of atoms is explored in this subject. Students will learn about how energy can be stored, transformed and used. Students will use rockets as a system to examine how objects move and how this motion can be represented either graphically or with equations. Students will design and undertake scientific investigations, evaluate their results and communicate their findings using scientific conventions.

Semester 2 Overview:

Students will learn how scientific theories can be used to explain the diversity of life on Earth. These theories are based on evidence and observations and can be used to make predictions and be refined over time. Students will explore the role of DNA and genes in cell division and genetic inheritance. The atomic structure of elements can be used to organise the elements in the Periodic Table. The life-sustaining reactions of photosynthesis and respiration are explored in depth to understand atomic bonding and chemical equations. The factors that control the speed of these reactions is also examined. Students will develop questions and hypotheses that can be investigated. Students design appropriate methods of determining the variables to be investigated and how to accurately collect data. Students analyse trends in data and identify sources of error. Students will also explore the impact that scientific developments have had and will continue to have on society. They will gain a deeper understanding of the issues that they may need to consider as recent technological advances (e.g. cloning, stem cells, personalized medicine) may have on their own lives.

Elaborations:

Biological Sciences

Students will learn:

- how to describe the role of DNA as the blueprint for controlling the characteristics of organisms
- the relationship between DNA, genes and chromosomes
- that genetic information is passed to gametes by meiosis
- to represent patterns of inheritance through Punnett Squares and Pedigree Charts
- how to predict simple ratios of offspring genotypes and phenotypes
- how mutations are related to changes in DNA
- about the processes involved in natural selection including variation and selection.

Physical Sciences

Students will learn:

- how to represent motion using graphs
- Newton's Laws of Motion
- that energy transformations and exchanges can be described using laws of physics
- how energy transformations and exchanges can be described using laws of physics

Chemical Sciences:

Students will learn:

- how to explain how the structure of an atom determines its position in the periodic table
- about factors that can make chemical reactions go faster or slower

Earth and Space Sciences

Students will learn:

- How the Universe contains features including galaxies, stars and solar systems; the Big Bang theory can be used to explain the origin of the Universe.

Science as a human endeavour:

Students will learn:

- How scientific understanding, including models and theories, are contestable and are refined over time through a process of review by the scientific community
- How advances in scientific understanding often rely on developments in technology and technological advances are often linked to scientific discoveries
- How the values and needs of contemporary society can influence the focus of scientific research.

Students will be able to:

- formulate questions or hypotheses that can be investigated scientifically
- plan, select and use appropriate investigation methods
- consider possible independent and dependent variables and ensuring these are controlled appropriately
- analyse patterns and trends in data, including identifying inconsistencies
- communicate scientific ideas and information for a particular purpose, including constructing evidence-based arguments and using appropriate scientific language and representations.

Victorian Curriculum Assessment Areas:

- Science Understanding – Biological sciences
- Science Understanding – Chemical sciences
- Science Understanding – Physical sciences
- Science Understanding – Science as a human endeavour
- Science Inquiry Skills
- Critical and Creative Thinking

YEAR 11 The ARTS

Drama - Units 1 & 2

(Please note: Drama Units 1 & 2 will not be offered in 2020. See Theatre Studies Units 1 & 2 as an alternative)

Course Description:

The study of Drama focuses on the creation and performance of characters and stories that communicate ideas, stories and messages. Students use creative processes and draw on a range of stimulus material and play-making techniques to develop and present devised work. Students also learn about and draw on a range of performance styles relevant to practices of ritual and story-telling, contemporary drama practice and the work of significant drama practitioners. Students explore characteristics of selected performances and apply and manipulate conventions, dramatic elements and production areas. They use performance and expressive skills to explore and develop role and character. The performances they create will go beyond the reality of life as it is lived and may pass a comment on or respond to aspects of the real world. These performances can occur in any space. Students also analyse the development of their own work and performances by other drama practitioners.

Unit 1 Details:

Introducing performance styles – this unit will investigate:

- creating a devised performance
- presenting a devised performance
- analysing a devised performance
- analysing a professional drama performance.

Unit 2 Details:

Australian identity – this unit looks at:

- using Australia as inspiration
- presenting a devised performance
- analysing a devised performance
- analysing an Australian drama performance.

Assessment:

Unit 1 Coursework

- creating and presenting an ensemble performance task (in groups)
- written analysis of how the ensemble performance was created
- written analysis of a selected play.

Unit 2 Coursework

- creating and presenting a solo performance task
- written analysis of how the solo performance was created
- written analysis of a selected Australian play from other practitioners

There is a mid-year and an end-of-year written examination.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Drama. However, successful completion of Years 9 and/or 10 Drama is highly recommended.

Additional Information:

Students will be required to attend two excursions to see plays in order to complete their analysis outcomes each semester. These will likely be excursions in the evening and may incur an additional cost. Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 The ARTS

Media – Units 1 & 2

Course Description:

This study focuses on providing students with the opportunity to analyse media products (film, print publications, gaming, mixed media and photography) and concepts in an informed and critical way. Students will examine industry production and distribution context, audience reception and the media's contribution to, and impact on, society. Furthermore, students will work independently and collaboratively to investigate, design and create media products.

Unit 1 Details:

Media Forms, Representations and Australian Stories

In this unit, students develop an understanding of audiences and the core concepts underpinning the construction of representations and meaning in different media forms. They explore media codes, conventions, and the construction of meaning in media products.

Students analyse how representations, narrative and media codes and conventions contribute to the construction of the media realities audiences engage with and read. Students gain an understanding of audiences as producers and consumers of media products. Through analysing the structure of narratives, students consider the impact of media creators and institutions on production. They develop research skills to investigate and analyse selected narratives focusing on the influence of media professionals on production genre and style. Students develop an understanding of the features of Australian fictional and non-fictional narratives in different media forms.

Students work in a range of media forms, develop, and produce representations to demonstrate an understanding of the characteristics of each media form, and how they contribute to the communication of meaning.

Areas of Study:

1. Media Representations
2. Media Forms in Production
3. Australian Media

Unit 2 Details:

Narrative Across Media Forms

In Unit 2, students further develop an understanding of the concept of narrative in media products and forms in different contexts. Narratives in both traditional and newer forms include film, television, sound, news, print, photography, games, and interactive digital forms. Students analyse the influence of developments in media technologies on individuals and society, examining in a range of media forms the effects of media convergence and hybridisation on the design, production and distribution of narratives in the media and audience engagement, consumption and reception. Students focus on media industries such as journalism and filmmaking that are built upon the creation and distribution of narratives constructed in the form of a series of interconnected images and/or sounds and/or words, and using media codes and conventions. New media forms and technologies enable participants to design, create and distribute narratives in hybrid forms such as collaborative and user-generated content, which challenges the traditional understanding of narrative form and content.

Students undertake production activities to design and create narratives that demonstrate an awareness of the structures and media codes and conventions appropriate to corresponding media forms.

Areas of Study are:

1. Narrative, Style and Genre
2. Narratives in Production
3. Media and Change

Assessment:

• School-assessed Coursework for Unit 1 (one written test, one presentation, one planning and production exercise)
• School-assessed Coursework for Unit 2 (one media product, two written tests)
• Units 1 and 2 examinations.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Media Studies, although Year 9 and Year 10 Media Arts is recommended.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 The ARTS

Music Performance - Units 1 & 2

Course Description:

This study focuses on the building of performance and musicianship skills. Students develop skills in technical, expressive and stylistic performance. Students also develop their listening, aural, theoretical and analytical music skills and apply this knowledge when preparing and presenting performances.

Unit 1 Details:

This unit focuses on building performance and musicianship skills.
Areas of study:

- prepare and perform a practised program of group and solo works.
- demonstrate and discuss instrumental techniques and strategies relevant to the performance of selected works.
- identify, re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted.

Unit 2 Details:

This unit focuses on students further building on their performance and musicianship skills.
Areas of study:

- prepare and perform a musically engaging program of group and solo works
- demonstrate and discuss instrumental techniques and strategies relevant to the performance of selected works.
- identify, re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted.
- devise a composition or an improvisation that uses music language evident in works being prepared for performance.

Assessment:

- performance of 3 works including at least 1 group work and 1 solo work with accompaniment as appropriate; the duration of the performances will vary depending on the works selected. Participation in rehearsals and performance of a teacher led ensemble AND student led ensemble is required.
- A demonstration of material chosen to address challenges in performance of works prepared for Outcome 1, for example an assessment task that includes a test or other performance context
- an explanation of how selected material supports the student's development as an instrumentalist and their preparation of works performed for Outcome 1; the explanation may be presented in one or more of the following formats: oral, multimedia or written
- aural, written and practical tasks such as: a folio of exercises; structured questions; a workbook of class activities.
- a composition or an improvisation and accompanying documentation that describes use of music language in the exercise/s; the documentation may be presented in one or both of the following formats: multimedia; written (UNIT 2 ONLY).

Prerequisites:

There are no prerequisites for entry into Units 1 and 2 Music Performance.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 The ARTS

Studio Arts – Units 1 & 2

Course Description:

Studio Arts provides a framework for the establishment of effective art practices through an understanding and application of a studio process. This course provides fine art studies in areas such as drawing, painting, printmaking, mixed media and sculpture. Students generate, explore and communicate ideas through specific studio forms and develop and use specialized skills in a range of media and techniques. The theoretical component of the study informs students' practice through an investigation of how artists have developed their practice and have used materials, techniques and processes to create aesthetic qualities in their work.

Unit 1 Details: Studio Inspiration and Techniques

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.

Outcome One:

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.

Outcome Two:

On completion of this unit, the 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.

Outcome Three:

On completion of this unit, the student should 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.

Assessment:

- Folio Development
- Studio practise with at least one finished artwork
- Artist Study Essay

Unit 2 Details: Studio Exploration and Concepts

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. Students will compare contemporary art with historical art styles and movements.

Outcome One:

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.

Outcome Two:

On completion of this unit, the student 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.

Assessment:

- Individual Exploration proposal
- Studio Process that includes at least one finished artwork
- Artist Study Essay

Prerequisites:

There are no pre-requisites for entry into Units 1 & 2 Studio Art.

Note: There is a fee associated with this course with Studio Arts 1/2 of $140.00 per year (subject to change).

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YEAR 11 The ARTS

Theatre Studies - Units 1 & 2

Course Description:

In VCE Theatre Studies students interpret scripts from the pre-modern era to the present day and produce theatre for audiences. Through practical and theoretical engagement with scripts they gain an insight into the origins and development of theatre and the influences of theatre on cultures and societies. Students apply dramaturgy and work in the production roles of actor, director and designer, developing an understanding and appreciation of the role and place of theatre practitioners.

Throughout the study, students work individually and collaboratively in various production roles to creatively and imaginatively interpret scripts and to plan, develop and present productions. Students study the contexts – the times, places and cultures – of these scripts, as well as their language. They experiment with different possibilities for interpreting scripts and apply ideas and concepts in performance to an audience. They examine ways that meaning can be constructed and conveyed through theatre performance. Students consider their audiences and in their interpretations incorporate knowledge and understanding of audience culture, demographic and sensibilities.

Students learn about innovations in theatre production across different times and places and apply this knowledge to their work. Through the study of plays and theatre styles, and by working in production roles to interpret scripts, students develop knowledge and understanding of theatre, its conventions and the elements of theatre composition. Students analyse and evaluate the production of professional theatre performances and consider the relationship to their own theatre production work. Students learn about and demonstrate an understanding of safe, ethical, and responsible personal and interpersonal practices in theatre production.

Unit 1 Details:

Pre-modern theatre styles and conventions – this unit involves:

- Exploring pre-modern theatre styles and conventions through workshops and folio-based tasks
- Interpreting pre-modern scripts, and performing them to an audience
- Analysing a professional theatre production

Unit 2 Details:

Modern theatre styles and conventions – this unit involves:

- Exploring modern theatre styles and conventions through workshops and folio-based tasks
- Interpreting modern scripts, and performing them to an audience
- Analysing and evaluating a professional theatre production

Assessment:

Unit 1 Coursework

- Mini-folio tasks on production roles that could include actor, director and/or designer roles
- Interpreting and presenting three playscripts
- Written analysis of a professional theatre production

Unit 2 Coursework

- Mini-folio tasks on production roles that could include actor, director and/or designer roles
- Interpreting and presenting three playscripts
- Written analysis of a professional theatre production

Examinations

Mid-year and end-of-year written exams.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Theatre Studies. However, successful completion of Years 9 & 10 Drama is highly recommended.

Additional Information:

Students will be required to attend two excursions to see plays in order to complete their analysis outcomes each semester. These will likely be done in the evening and may incur an additional cost.

YEAR 11 The ARTS

Visual Communication Design - Units 1 & 2

Course Description:

The Visual Communication Design study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design.
Visual Communication Design relies on drawing as the primary component of visual language to support the conception and visualisation of ideas. This study emphasises the importance of developing a variety of drawing skills to visualise thinking in the design fields of Industrial design, Environmental / Architectural design and Communication design.

Unit 1 Details:

This unit will be an introduction to Visual Communication Design.

Areas of study:

- Drawing as a means of communication: students follow a design brief and create digital and manual drawings.
- Design Elements and Principles: students use the Design Elements and Principles as the basis of a range of practical explorations.
- Visual communication design in context: students look at design history and various factors that influence design.

Unit 2 Details:

This unit looks at applications of Visual Communication Design within design fields.

Areas of study:

- Technical drawing in context: students look at manual and digital technical drawing methods.
- Type and imagery in context: students learn about typography and layout, and create type-based designs.
- Applying the design process: students follow the design process to develop and refine ideas.

Assessment:

- students will be required to satisfactorily complete all required units of work. All graded tasks will be marked using assessment advice from the VCAA and the College
- mid-year exam based on Unit 1 Coursework. (One and a half hours duration)
- end-of-year exam based on Unit 1 and 2 Coursework. (One and a half hours duration)

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Visual Communication Design. Experience in an Art or Design subject would be of help for interested students.
Additional Information:
Students who wish to undertake two folio subjects must first seek approval from their folio teachers and their Year Level Well-Being Leader.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 ENGLISH

English Units 1 & 2

Course Description

The study of English contributes to the development of literate individuals capable of critical and creative thinking, aesthetic appreciation and creativity. This study also develops students' ability to create and analyse texts, moving from interpretation to reflection and critical analysis. Through engagement with texts from the contemporary world and from the past, and using texts from Australia and from other cultures, students studying English become confident, articulate and critically aware communicators and further develop a sense of themselves, their world and their place within it. English helps equip students for participation in a democratic society and the global community.

Unit 1 Details

In this unit, students read and respond to texts analytically and creatively. They explore how authors use structures, conventions and language to represent characters, settings, events, explore themes, and build the world of the text for the reader. They analyse arguments and the use of persuasive language in texts and create their own texts intended to position audiences. In considering the presentation of arguments in oral form, students also learn about the conventions of oral communication for persuasive purposes.

Areas of Study:

4. Reading and Creating Texts
5. Analysing and Presenting Argument

Unit 2 Details

In this unit, students explore how comparing texts can provide a deeper understanding of ideas, issues and themes. They examine how features of texts, including structures, conventions and language, convey ideas, issues and themes that reflect and explore the world and human experiences, including historical and social contexts. Students analyse arguments presented and the use of persuasive language in texts and create their own texts intended to position audiences.

Areas of Study:

1. Reading and Comparing Texts
2. Analysing and Presenting Argument

Assessment

The award of satisfactory completion for each unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit.

YEAR 11 ENGLISH

Literature – Units 1 & 2

Course Description

This subject enables students to develop effective reading strategies, to examine the ideas and views of life which are presented in the literature studied, and relate what they read to their own lives and social contexts. Students develop an understanding of, and a critical response to, past and contemporary literature and analyse and interpret literary texts for a variety of purposes.

Unit 1 Details

The focus of this unit is on the reading of a range of texts, particularly narrative and imaginative texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students will develop confidence in creating written, oral and multimodal texts. The set texts will be chosen by the College for the achievement of outcomes.

Areas of Study:

1. Reading Practices
2. Ideas and Concerns in Texts

Unit 2 Details

The focus of this unit is on extending students' explorations of ideas and concerns in texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students will develop confidence in creating written, oral and multimodal texts. The set texts will be chosen by the College for the achievement of outcomes.

Areas of Study:

1. The text, the Reader and their Contexts
2. Exploring Connections between Texts

Assessment:

The students' level of achievement in Units 1 & 2 will be determined by assessment tasks and end-of-semester exams.

YEAR 11 ENGLISH

Philosophy – Units 1 & 2

Course Description:

This study focuses on students cultivating open-mindedness, reflecting critically on their own thinking and that of others, and exploring alternative approaches to philosophical arguments, concepts and questioning. Students will explore a wide range of visual and written texts to strengthen their ability to problem solve and to think deeply and critically on various topics and issues. Students will also develop their reflective and analytical writing skills, as well as their communication and speaking skills.

Unit 1 Details

This unit engages students with fundamental philosophical questions through active, guided investigation and critical discussion of two key areas of philosophy: epistemology (how we acquire knowledge) and metaphysics (the study of the nature of the world, reality and existence). Emphasis for this unit is on philosophical inquiry, focusing on practical techniques of logic and reasoning. Students learn to think philosophically, analyse different viewpoints and arguments, both contemporary and historical, to stimulate and enhance their thinking about critical issues. Students also investigate key philosophical concepts and themes relevant in society and our everyday lives.

Areas of Study:

1. Metaphysics
2. Epistemology
3. Introduction to Logic and Reasoning

Unit 2 Details

In this unit, students will critically and analytically explore how we develop the foundations of our judgments and values, and how we define morals and ethics in our day-to-day lives, society and globally. Through issues, arguments and investigation, students will explore the concept of ethics, focusing on the realms of morality and aesthetics. Students also explore ways in which viewpoints and arguments in value theory can inform and be informed by contemporary debates and issues in society.

Areas of Study:

1. Ethics and Moral Philosophy
2. Further Problems in Value Theory
3. Techniques of Reasoning

Assessment:

The award of satisfactory completion for both Unit 1 and Unit 2 Philosophy is based upon the successful completion of the set Outcomes specified for the unit related to each Area of Study.

Prerequisites:

There are no prerequisites for entry into Unit 1 and Unit 2 Philosophy. Students wishing to study Philosophy should be mature, respectful and have a keen and open attitude. A high level of critical and analytical thinking, processing and writing skills is beneficial.

YEAR 11 HEALTH & PHYSICAL EDUCATION

Health and Human Development – Units 1 & 2

Course Description:

VCE Health and Human Development provides students with broad understandings of health and wellbeing that reach far beyond the individual. Students learn how important health and wellbeing is to themselves and to families, communities, nations and global society. Students explore the complex interplay of biological, sociocultural and environmental factors that support and improve health and wellbeing and those that put it at risk. The study provides opportunities for students to view health and wellbeing, and development, holistically – across the lifespan and the globe, and through a lens of social equity and justice.

Unit 1 Details:

In this unit, students identify personal 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 on 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 focus area.

Areas of Study:

- Health Perspectives & Influences
- Health & Nutrition
- Youth Health & Wellbeing

Unit 2 Details:

This unit 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. This unit promotes the application of health literacy skills through an examination of 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.

Areas of Study:

- Developmental Transitions
- Health Care in Australia

Assessment:

Suitable tasks for assessment in this unit may be selected from the following:

- A short written report, such as a media analysis, a research inquiry, a blog or a case study analysis
- oral presentation, such as a debate or a podcast
- a visual presentation such as a graphic organiser, a concept/mind map, an annotated poster, a digital presentation
- structured questions, including data analysis.

Prerequisites:

There are no prerequisites for entry to Units 1 & 2, although students should have a solid record of achievement in Health Education in Years 7 – 9.

Additional Information:

Students will be offered excursions to Health Care facilities and may have relevant guest speakers that may incur an additional cost.

YEAR 11 HEALTH & PHYSICAL EDUCATION

Physical Education – Units 1 & 2

Course Description:

VCE Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between psychological, physiological and sociological factors that influence physical performances, and participation in physical activity.

The study of physical activity and sedentary behaviour is significant for the understanding of health, wellbeing and performance of people. The study enables the integration of theoretical knowledge with practical application through participation in physical activities. There are opportunities for students to apply theoretical concepts and reflect critically on factors that affect all levels of performance and participation.

This VCE study is suitable for students with a wide range of aspirations, including those who wish to pursue further formal study at tertiary level or in vocational education and training settings. The study prepares students for such fields as the health sciences, exercise science and education, as well as providing valuable knowledge and skills for participating in their own sporting and physical activity pursuits to develop as critical practitioners and lifelong learners.

Unit 1 Details:

The Human Body in Motion

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 in sequences 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.

In Area of Study one, students examine how the musculoskeletal system works to produce movement. In Area of Study two, students look at how the cardiorespiratory system functions at rest and during physical activity.

Unit 2 Details:

Physical Activity, Sport and Society

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.

They explore a range of factors that in 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 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.
In Area of Study one, students look at the relationships between physical activity, sport, health and society. In Area of Study two, students examine the contemporary issues associated with physical activity and sport.

Assessment:

Assessment tasks for Units 1 - 4 will be drawn from the following activities:

- a practical laboratory report linking key knowledge and key skills to practical activity
- a case study analysis
- data analysis
- a critically reflective folio/diary of participation in practical activities
- a visual presentation such as a graphic organiser, concept/mind map, annotated poster, presentation file
- a multimedia presentation, including two or more data types (for example, text, still and moving images, sound) and involving some form of interaction
- a physical simulation or model
- an oral presentation such as podcast, debate
- a written report
- a test

Prerequisites:

There are no prerequisites for entry to Units 1 and 2, although Year 10 Sports Science provides valuable prior knowledge.

YEAR 11 HUMANITIES

Accounting – Units 1 & 2

Course Description:

VCE Accounting explores the financial recording, reporting, analysis and decision-making processes of a sole proprietor small business. Students study both theoretical and practical aspects of accounting. They collect, record, report and analyse financial data, and report, classify, verify and interpret accounting information. Students apply critical thinking skills to a range of business situations to model alternative outcomes and to provide accounting advice to business owners.

Unit 1 Details:

This unit explores 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 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 record financial data and prepare reports for service businesses owned by sole proprietors.

Areas of Study:

1. The role of accounting
2. Recording financial data and reporting accounting information for a service business

Unit 2 Details:

In this unit 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, to prepare historical and budgeted accounting reports. Students 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 performance.

Areas of Study:

1. Accounting for inventory
2. Accounting for and managing accounts receivable and accounts payable
3. Accounting for and managing non-current assets

Assessment:

Students will be required to satisfactorily complete a folio of exercises, topic tests and an end-of-semester exam.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Accounting. However, completion of Year 10 Accounting is highly recommended.

Additional Information:

Students will need to purchase a non-graphics calculator, which must be brought to every class.

YEAR 11 HUMANITIES

Australian and Global Politics – Units 1 & 2

Course Description:

VCE Australian and Global Politics is the study of contemporary power at national and global levels. Through this study, students explore, explain, analyse and evaluate national and global political issues, and events. The subject offers students the opportunity to engage with key political, social and economic issues, and to become informed citizens, voters and participants in their local, national and international communities.

Unit 1: Ideas, Actors and Power

In this unit, students are introduced to the key ideas relating to the exercise of political power. They explore how these ideas shape political systems and in particular the characteristics of liberalism. They consider the nature of power in Australian democracy and in a non-democratic political system. They also explore the nature and influence of key political actors in Australia: political parties, interest groups and the media, and investigate how these actors influence the political agenda.

Areas of study

1. Power and ideas
2. Political actors and power

Unit 2: Global Connections

This unit introduces students to the global community and the global actors that are part of this community. In Area of Study 1, students explore the myriad ways lives have been affected by the increased interconnectedness of the world through the process of globalisation. In Area of Study 2, students consider the extent to which global actors cooperate and share visions and goals as part of the global community. They investigate the ability of the global community to manage areas of global cooperation and to respond to issues of global conflict and instability.

Areas of study:

1. Global links
2. Global cooperation and conflict

Assessment:

Students will be required to satisfactorily complete a combination of tests containing short answer questions and extended responses, research-based assignment and essay work, plus a portfolio of class tasks and end-of-semester exams.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Australian and Global Politics; however, successful completion of Global Issues at Year 10 is highly recommended. A keen interest in the subject is also beneficial.

Additional Information:

Due to the changing nature of politics, reliable home internet access will be necessary in order to conduct research and to keep well-informed.

YEAR 11 HUMANITIES

Business Management – Units 1 & 2

Course Description:

VCE Business Management examines the ways businesses manage resources to achieve objectives. The VCE Business Management study design follows the process from the first idea for a business concept, to planning and establishing a business, through to the day-to-day management of a business. It also considers changes that need to be made to ensure continued success of a business. Students develop an understanding of the complexity of the challenges facing decision makers in managing these resources.

Unit 1 Details: Planning a business

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, examining the effect of these on planning a business.

Areas of Study:

1. The business idea
2. External environment
3. Internal environment.

Unit 2 Details: Establishing a business

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.

Areas of Study:

1. Legal requirements and financial considerations
2. Marketing a business
3. Staffing a business.

Assessment:

Students will be required to satisfactorily complete a range of School assessed Coursework, that may include analyses of case studies, business research reports, interviews, presentations, structured questions, and end of semester exams.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Business Management.

YEAR 11 HUMANITIES
ECONOMICS – Units 1 & 2

Course Description:
Economics is the study of how resources are allocated to meet the needs and wants of society. Studying Economics as a social science enables students to gain valuable insight into the economic problems that they may face on an individual basis and collectively as a society to meet the needs and wants of citizens, and may therefore assist them in making more informed and responsible decisions.

Unit 1 Details: The behaviour of consumers and businesses
In this unit, students explore their role in the economy, how they interact with businesses and the way economic models and theories have been developed to explain the causes and effects of human action. They examine basic economic models where consumers and businesses engage in mutually beneficial transactions. Students examine a simple microeconomic model to explain changes in prices and quantities traded. Through close examination of markets, they gain insight into the factors that may affect the way resources are allocated in an economy and how market power can affect efficiency and living standards.

Areas of Study:
1. Thinking like an economist: On completion of this unit the student should be able to describe the basic economic problem, discuss the role of consumers and businesses in the economy and analyse the factors that influence decision making.
2. Decision making in markets: On completion of this unit the student should be able to explain the role of relative prices and other non-price factors in the allocation of resources in a market-based economy.

Unit 2: Contemporary economic issues
Students focus on the possible trade-off between the pursuit of growth in incomes and production and the goal of environmental sustainability and long-term economic prosperity. They investigate the importance of economic growth in terms of raising living standards and evaluate how achievement of this goal might result in degradation of the environment and the loss of key resources.

Areas of Study:
1. Economic growth, long-term economic prosperity and environmental sustainability: On completion of this unit, the student should be able to explain the factors and policies that may influence economic growth and environmental sustainability, and analyse the potential trade-off.
2. Economic efficiency and equity: On completion of this unit, the student should be able to explain the factors and policies that may influence equity in the distribution of income and efficiency of resource allocation, and analyse the potential trade-off.
3. Global economic issues: Outcome 3: On completion of this unit, the student should be able to explain the factors that may influence a global economic issue/s and evaluate potential consequences associated with actions to address the issue/s.

Assessment:
Students will be required to satisfactorily complete a range of School assessed Coursework, including case study analysis, topic tests, assignments and end of semester exams

Prerequisites:
There are no prerequisites for entry into Units 1 & 2 Economics.

YEAR 11 HUMANITIES

Geography – Units 1 & 2

Course Description:

The study of Geography is a structured way of exploring, analysing and understanding the characteristics of places that make up our world. Geographers are interested in key questions concerning places and geographic phenomena.

Unit 1 Details: Hazards and Disasters

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

Areas of Study:

- *Characteristics of hazards*. - In this area of study students, examine hazards and hazard events before engaging in a study of at least two specific hazards at a range of scales. They study one from at least two different types of hazards from the list provided for example, coastal hazards and an alien animal invasion, or floods and oil spills.
- *Response to hazards and disasters*. - In this area of study, students explore the nature and effectiveness of specific measures such as prediction and warning programs, community preparedness and land use planning, as well as actions taken after hazards become harmful and destructive disasters.

Unit 2 Details: Tourism

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.

Areas of Study:

1. *Characteristics of tourism*. - In this area of study, students examine the characteristics of tourism, the location and distribution of different types of tourism and tourist destinations and the factors affecting different types of tourism.
2. *Impact of tourism*. - In this area of study, students explore the environmental, economic and socio-cultural impacts of different types of tourism. They investigate at least one tourism location, using appropriate fieldwork techniques, and another elsewhere in the world.

Assessment:

Demonstration of achievement of Outcomes 1 and 2 in both units will be based on the student's performance on a selection of assessment tasks. These tasks will include:
A fieldwork report (compulsory – one report in each semester)
Structured questions

- A case study
- A report
- A folio of exercises
- mid-year and end-of-year examinations

Prerequisites:

There are no prerequisites for entry into Units 1 and 2 Geography. However, it is recommended that students have studied Geography at Year 10.

Additional Information:

There will be two fieldwork trips throughout the year - a compulsory component of this course. The cost of the fieldwork trips will be approximately $20 -$30 for each trip.

YEAR 11 HUMANITIES

History: Global Empires – Units 1 & 2

Course Description:

The study of VCE History assists students to understand themselves, others and their world, and broadens their perspective by examining people, groups, events, ideas and movements. Through studying VCE History, students develop social, political, economic and cultural understanding. They also explore continuity and change: the world is not as it has always been, and it will be subject to change in the future. In this sense, history is relevant to contemporary issues. It fosters an understanding of human agency and informs decision making in the present.
Global Empires focuses on European colonisation and imperialism around the globe, a period of history that continues to reverberate today.

Unit 1 Details: The making of empires 1400 - 1775

In Unit 1, students examine how the Portuguese, Spanish, French, British and Dutch empires harnessed new ideas and technologies to usurp the power of the established empires of Venice, China and the Ottoman Empire, thus entrenching their ideas and influence across the globe.

Areas of Study:

1. *Exploration and expansion* - On completion of this unit the student should be able to explain the reasons for European voyages of exploration and analyse the motivations of new globally oriented empires.
2. *Disruptive ideas* - On completion of this unit the student should be able to explain how new ideas and discoveries challenged old certainties and strengthened European empires.

Unit 2 Details: Empires at work 1400 - 1775

In Unit 2, students explore the operation of European colonies in places such as the Americas, Africa, and the Caribbean, and examine the challenges they faced from within and without. Despite their profitability, these colonies brought a number of difficulties in the forms of indigenous resistance, rebellious settlers, rivalry with other European powers, and a drain on resources.

Areas of Study:

1. *New colonies, new profits* - On completion of this unit the student should be able to analyse the methods used by European powers to establish colonies and the historical significance of new global systems of exchange.
2. *Challenges of empires* - On completion of this unit the student should be able to analyse the effectiveness of a global empire in dealing with colonial challenges and assess the empire's global standing by 1775.

Assessment:

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for each unit.
Assessment tasks over Units 1 and 2 include the following:

- an historical inquiry
- an analysis of primary sources
- an analysis of historical interpretations
- an essay.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 History. However, it is strongly recommended that students have undertaken a History based subject in Year 10.

YEAR 11 HUMANITIES

History: Twentieth Century History – Units 1 & 2

Course Description:

The study of VCE History assists students to understand themselves, others and their world, and broadens their perspective by examining people, groups, events, ideas and movements. Through studying VCE History, students develop social, political, economic and cultural understanding. They also explore continuity and change: the world is not as it has always been, and it will be subject to change in the future. In this sense, history is relevant to contemporary issues. It fosters an understanding of human agency and informs decision making in the present.
Twentieth Century History examines the aftermath of the Great War as well as the causes and consequences of World War 2, including the Cold War.

Unit 1 Details: Twentieth century history 1918 –1939

In Unit 1, students explore the nature of political, social and cultural change in the period between the world wars, 1918-1939. World War 1 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 period after World War 1 was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s.

Areas of Study:

1. *Ideology and conflict* - In this area of study, students explore the events, ideologies and movements of the period after World War 1; the emergence of conflict and the causes of World War 2. They investigate the impact of the treaties which ended the Great War and which redrew the map of Europe and broke up the former empires of the defeated nations.
2. *Social and cultural change* - In this area of study, students focus on the social life and cultural expression in the 1920s and 1930s and their relation to the technological, political and economic changes of the period. Students explore particular forms of cultural expression from the period in one or more of the following contexts: Italy, Germany, Japan, USSR and/or USA.

Unit 2 Details: Twentieth century history 1945 –2000

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, 1945-2000. 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. The period also saw challenge and change to the established order in many countries. 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.

Areas of Study:

1. *Competing ideologies* - In this area of study, students focus on causes and consequences of the Cold War; the competing ideologies that underpinned events, the effects on people, groups and nations, and the reasons for the end of this sustained period of ideological conflict.
2. *Challenge and change* - In this area of study, students focus on the ways in which traditional ideas, values and political systems were challenged and changed by individuals and groups in a range of contexts during the period 1945 to 2000. Students explore the causes of significant political and social events and movements, and their consequences for nations and people.

Assessment: The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for each unit.
Assessment tasks over Units 1 and 2 include the following:

- an historical inquiry
- an analysis of primary sources
- an analysis of historical interpretations
- an essay.

Prerequisites: There are no prerequisites for entry into Units 1 & 2 History. However, it is recommended that students have undertaken a History based subject in Year 10.

YEAR 11 HUMANITIES

Legal Studies – Units 1 & 2

Course Description:

VCE Legal Studies examines the institutions and principles which are essential to Australia's legal system. Through this learning, students are equipped with a range of skills, including the ability to; research and analyse legal information, apply legal reasoning and decision-making skills, and critically think to solve legal problems.

Unit 1 Details: Guilt and Liability

In this unit, students develop an understanding of legal foundations and an appreciation for the way legal principles are used to determine the outcomes in criminal and civil matters. As part of this, students explore different types and sources of law, the existence and importance of a court hierarchy, and key concepts within criminal and civil cases.

Areas of Study:

1. *Legal Foundations* - Students learn about the main sources and types of law, and assess the effectiveness of laws through the achievement of set characteristics.
2. *The Presumption of Innocence* – Students explore the purposes and key concepts of criminal law, and apply this knowledge to a range of actual and/or hypothetical scenarios.
3. *Civil Liability* - Students explore the purposes and key concepts of civil law, and apply this knowledge to a range of actual and/or hypothetical scenarios.

Unit 2 Details: Sanctions, Remedies & Rights

In this unit, students undertake a detailed investigation of two criminal cases and two civil cases from the past four years to form a judgment about the ability of sanctions and remedies to achieve justice. Students also develop their understanding of the way rights are protected and investigate possible reforms to the protection of rights in Australia.

Areas of Study:

1. *Sanctions* – Students explore key concepts in the determination of a criminal case, and discuss the principles of justice in relation to the determination of criminal cases, sanctions and sentencing approaches.
2. *Remedies* – Students explore key concepts in the resolution of a civil dispute, and discuss the principles of justice in relation to the resolution of civil disputes and remedies.
3. *Rights* - Students evaluate the ways in which rights are protected in Australia and discuss the impact of an Australian case on the rights of individuals and the legal system.

Prerequisites:

There are no prerequisites for Units 1 & 2 Legal Studies.

YEAR 11 LANGUAGES

German Units 1 & 2

Course Description:

This course has been designed for students who have previously studied 3 - 4 years of German.
The study of German contributes to student personal development in a range of areas including communication skills, intercultural understanding, cognitive development, literacy and general knowledge. Learning a language engages analytical and reflective capabilities and enhances critical and creative thinking. The ability to communicate in German may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as trade, environmental studies, tourism, banking, technology and education.
Units 1 and 2 German focus on student participation in interpersonal communication, interpreting the language of other speakers, and presenting information and ideas in German on a range of themes and topics. Students develop and extend skills in listening, speaking, reading, writing and viewing in German in a range of contexts and develop cultural understanding in interpreting and creating language. Students develop their understanding of the relationships between language and culture in new contexts and consider how these relationships shape communities. Throughout the study students are given opportunities to make connections and comparisons based on personal reflections about the role of language and culture in communication and in personal identity.

Unit 1 Details:
This unit will investigate the prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for German.
There are three prescribed themes for study in VCE German:

- The individual; Personal identity and lifestyles, Relationships, Aspirations, education and careers
- The German-speaking communities; Cultural heritage, Historical and contemporary perspectives, Lifestyles in German-speaking countries and communities
- The world around us; Global and contemporary society, Communication and media, The influence of science and technology

Unit 2 Details:
This unit will investigate the prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for German.
There are three prescribed themes for study in VCE German:

- The individual; Personal identity and lifestyles, Relationships, Aspirations, education and careers
- The German-speaking communities; Cultural heritage, Historical and contemporary perspectives, Lifestyles in
  German-speaking countries and communities
- The world around us; Global and contemporary society, Communication and media, The influence of science and technology.

Assessment:

- School-assessed coursework for Unit 1 (3 outcomes covering listening/reading, writing and speaking skills)
- School-assessed coursework for Unit 2 (3 outcomes covering listening/reading, writing and speaking skills)
- Mid-year and end-of-year oral and written examinations.

Prerequisites: To have a reasonable chance of success in these units, students should have a solid record of achievement in Languages - German at Year 10 (Victorian Curriculum Level 10) or equivalent level of accomplishment.

Additional Information: Students are expected to able to use a bilingual dictionary effectively in exam and classroom situations.

YEAR 11 LANGUAGES

Japanese – Units 1 & 2

Course Description:

This course has been designed for students who have previously studied 3 - 4 years of Japanese. VCE Japanese Second Language focuses on student participation in interpersonal communication, interpreting the language of other speakers, and presenting information and ideas in Japanese on a range of themes and topics. Students develop and extend skills in listening, speaking, reading, writing and viewing in Japanese in a range of contexts and develop cultural understanding in interpreting and creating language.

Students develop their understanding of the relationships between language and culture in new contexts and consider how these relationships shape communities. Throughout the study students are given opportunities to make connections and comparisons based on personal reflections about the role of language and culture in communication and in personal identity.

The study of Japanese contributes to student personal development in a range of areas including communication skills, intercultural understanding, cognitive development, literacy and general knowledge. Learning and using an additional language encourages students to examine the influences on their perspectives and society, and to consider issues important for effective personal, social and international communication. It enables students to examine the nature of language, including their own, and the role of culture in language, communication and identity. By understanding the process of language learning, students can apply skills and knowledge to other contexts and languages. Learning a language engages analytical and reflective capabilities and enhances critical and creative thinking.

The study of Unit 1 and 2 Japanese provides students with the ability to understand and use a language that is spoken by approximately 128 million people worldwide. Japanese is a phonetic language with predictable and systematic grammar rules. Three scripts: *hiragana*, *katakana* and *kanji* are used for writing. Japanese grammar is relatively uniform, with few irregularities, no grammatical gender, and predictable and systematic conjugation of adjectives and verb tenses. There are some differences between the elements and patterns in Japanese and English, such as word order. Japanese cultural values are expressed in the system of plain and polite forms, which reflect hierarchical relations, social and business-related positioning and rules about respect and status.

Unit 1

Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for Japanese. Areas of Study:

- The individual - Personal identity and lifestyles, Relationships, Aspirations, education and careers
- The Japanese speaking communities – The Japanese-speaking communities, significant people,
- Living in a Japanese community/visiting Japan
- The world around us - Global and contemporary society, Communication and media, the influence of technology.

Unit 2

Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for Japanese. Areas of Study:

- The individual - Personal identity and lifestyles, Relationships, Aspirations, education and careers
- The Japanese speaking communities – The Japanese-speaking communities, significant people,
- Living in a Japanese community/visiting Japan
- The world around us - Global and contemporary society, communication and media, the influence of technology

Assessment:

- School-assessed coursework for Unit 1 (3 outcomes covering listening/reading, writing and speaking skills)
- School-assessed coursework for Unit 2 (3 outcomes covering listening/reading, writing and speaking skills)
- Mid-year and end-of-year oral and written examinations.

Prerequisites:

To have a reasonable chance of success in these units, students should have a solid record of achievement in languages - Japanese at Year 10 (Victorian Curriculum Level 10) or equivalent level of accomplishment.

Additional Information:

Students are expected to be able to use a bilingual dictionary effectively in exams and in the classroom.

YEAR 11 MATHEMATICS

Foundation Mathematics – Units 1 & 2

Course Description:

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. 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.

Unit 1 Details

In this unit students will apply the use of integers, decimals, fractions, ratios, proportions, percentages and rates to solve practical problems. They will use and interpret formulas and algebraic expressions to describe relationships between variables and to model patterns that exist in everyday contexts. Procedures for the solution of expressions and equations will be discussed and used to solve problems including predicting a required quantity or finding a break-even point. Students will apply and use metric units and measures, including derived measures. They will apply procedures for the solution of personal, societal and workplace problems involving metric measurement with consideration of error, required accuracy and tolerances. They will interpret and use time and duration including time and date specifications, conventions, schedules, timetables and time zones.

Areas of Study:

- Patterns and number
- Measurement

Unit 2 Details

In this unit students will investigate how to interpret and use plans, elevations, maps, models and diagrams. They will investigate geometric conventions and properties of shapes and objects, the application and use of similarity and symmetry and the processes involved in the enlargement and reduction of diagrams and models. The interpretation and use of location, distance, direction and scale on diagrams, maps and plans will be discussed in regards to their use in practical situations. Students will study the application of Pythagoras' theorem in practical situations involving right-angled triangles. They will cover the processes involved in the collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts. Students will interpret diagrams, charts, tables and graphs and use measures of averages and spread to summarise, interpret and compare data sets.

Areas of Study:

- Space, shape and design
- Data

Assessment:

Students will be required to satisfactorily complete:

- Investigations
- Projects
- Assignments
- Tests
- Semesters 1 and 2 Exams

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Foundation Mathematics.

Additional Information:

Students are expected to have a calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 11 MATHEMATICS

General Mathematics (Further) – Units 1 & 2

Course Description:

This course is designed to provide excellent preparation for Further Mathematics in Units 3 & 4.

Unit 1 Details

In this unit students will investigate and compare data distributions and discuss how to display and interpret categorical and numerical data distributions using summary statistics. They will cover continuous models involving linear relations and their graphs and construct linear model to represent practical situations. The representation and manipulation of linear relations and equations will be investigating including simultaneous linear equations, and their applications in a range of contexts. Students will cover mental, by-hand and technology assisted computation with rational numbers and practical arithmetic. Number patterns and recursion is investigated and their use to model practical situations and solve a range of related problems is discussed.

Areas of Study:

- Statistics
- Graphs of linear and non-linear relations
- Discrete mathematics
- Algebra and structure
- Arithmetic and number

Unit 2 Details

In this unit students will cover representing, analysing and investigating relationships between two numerical variables, including an introduction to correlation. This will involve students investigating the relationships between two numerical variables and the use of models to make predictions and identify limitations of extrapolation. In this unit students will cover financial arithmetic including investigating percentage increase and decrease applied to various financial contexts and applications of simple and compound interest. Students will investigate matrices as well as graphs and networks, discuss their use in modelling practical situations, and solve a range of related problems.

Areas of Study:

- Arithmetic and number
- Statistics
- Discrete mathematics

Assessment:

Students will be required to satisfactorily complete:

- Tests
- Modelling tasks
- Problem solving tasks
- Mathematical investigations
- Semesters 1 and 2 Exams

Prerequisites:

Satisfactory completion of Year 10 Mathematics Further Core or Year 10 Mathematics Methods Core.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

Please refer to page 155 for further information on Mathematics pathways.

YEAR 11 MATHEMATICS

Mathematical Methods – Units 1 & 2

This subject requires higher-order maths skills and necessitates intense focus on homework completion and continuous practice.

Course Description

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.

This course is designed as preparation for Mathematical Methods Units 3 and 4. It is also a prerequisite (may be studied concurrently) for any student considering undertaking Specialist Mathematics Units 1 and 2.

Unit 1 Details

In this unit students will cover the graphical representation of polynomial and power functions of a single real variable and the key features of functions and their graphs such as axis intercepts, domain, co-domain and range, stationary points, asymptotic behavior and symmetry. The behavior of functions and their graphs will be explored in a variety of modelling contexts and theoretical investigations. There is a focus on the algebra of polynomial functions of low degree and transformations of the plane including numerical approximation of roots. The concepts of event, frequency, probability and representation of finite sample spaces and events using various forms will be covered. This will include the consideration of impossible, certain, complementary, mutually exclusive, conditional and independent events involving one, two or three events, including the rules for computation of probabilities for compound events. Students will cover constant and average rates of change and an introduction to instantaneous rate of change of a function in familiar contexts.

Areas of Study:

- Functions and Graphs
- Algebra
- Calculus
- Probability and Statistics

Unit 2 Details

In this unit students will cover the graphical representation of functions and the key features of graphs of sine, cosine, tangent, exponential and logarithmic functions such as axis intercepts, domain, co-domain and range, asymptotic behavior, periodicity and symmetry. There is a focus on the algebra of some simple transcendental functions and transformations of the plane. Students will cover first principles approach to differentiation, differentiation and anti-differentiation of polynomial functions and power functions by rule, and related applications including the analysis of graphs. Introductory counting principles and techniques and their application to probability and the law of total probability in the case of two events will be discussed and investigated.

Areas of Study:

- Functions and Graphs
- Algebra
- Calculus
- Probability and Statistics

Assessment:

Students will be required to satisfactorily complete:

- Tests
- Modelling tasks
- Problem solving tasks
- Mathematical investigations
- Semesters 1 and 2 Exams

Prerequisites:

Satisfactory completion of Year 10 Maths Methods Elective and a minimum Victorian Curriculum standard of '*excellent'* for either Year 10 Mathematics Methods Core or VCE General Mathematics (Advanced) Units 1 and 2.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 11 MATHEMATICS

Specialist Mathematics – Units 1 & 2

This subject requires higher-order maths skills and necessitates intense focus on homework completion and continuous practice.

Course Description

Specialist Mathematics Units 1 and 2 is highly recommended for those students who wish to study Specialist Mathematics Units 3 and 4. Students must also be studying Mathematical Methods Units 1 and 2 concurrently with this course.

Unit 1 Details

In this unit students will investigate geometry in the plane and proof which includes proofs of circle theorems as well as the similarity and congruence of triangles. Students will undertake an investigation of the definitions and properties of natural, rational and complex numbers and employ proofs using various strategies such as the method of direct proof, proof by contrapositive and by mathematical induction. Students will review trigonometry and investigate the use and application of the sine and cosine rules in non-right angled triangles and solve problems involving direction and the angles of elevation and depression. The definition and properties of the natural and rational numbers will be discussed as well as the applications of set notation and sets when solving worded problems. Students will discuss arithmetic and geometric sequences and series, including the use of technology to assist in the solution of worded problems arising from these. The definition and properties of the complex numbers will be investigated including their representation on an argand diagram and their involvement in the general solution of quadratic equations. The topic of kinematics will be discussed and will include modelling and analysis of rectilinear motion under constant acceleration, including the use of the constant acceleration formulas.

Areas of Study:

- Arithmetic and number
- Geometry, measurement and trigonometry
- Graphs of linear and non-linear relations

Unit 2 Details

In this unit students will cover vectors in the plane which will include the representation of vectors as directed line segments, with specific examples involving position, displacement and velocity. They will also be introduced to vector algebra and the application of vectors to geometric proofs, orienteering, navigation and statics. Cartesian, polar and parametric forms and graphs of lines, parabolas, circles, ellipses and hyperbola will be discussed and explored. Students will be introduced to and apply trigonometric identities including the Pythagorean identity; the angle sum, difference and double angle identities. Matrices will also be used to model situations and solve a range of problems including solving a system of simultaneous linear equations. Linear transformations of the plane will be explored and the effect of these linear transformations and their inverse transformations and compositions of these transformations on subsets of the plane such as points, lines, shapes and graphs will be discussed. Students will also undertake the study of statistics which includes simulations, sampling and sampling distributions including the introduction to random variables for discrete distributions.

Areas of Study:

- Geometry, measurement and trigonometry
- Graphs of linear and non-linear relations
- Transformations, trigonometry and matrices
- Statistics

Assessment:

Students will be required to satisfactorily complete:

- Tests
- Modelling tasks
- Problem solving tasks
- Mathematical investigations
- Semesters 1 and 2 Exams

Prerequisites:

Satisfactory completion of both the Year 10 Maths Methods Elective and Year 10 Core Maths Methods courses.
Whilst undertaking Specialist Mathematics Units 1 and 2 students must also be studying Mathematical Methods Units 1 and 2.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 11 SCIENCE
Biology - Units 1 & 2

Course Description:

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system, species and ecosystem levels. In undertaking this study, students examine how life has evolved over time and understand that in the dynamic and interconnected system of life all change has a consequence that may affect an individual, a species or the collective biodiversity of Earth. The study gives students insights into how knowledge of molecular and evolutionary concepts underpin much of contemporary biology, and the applications used by society to resolve problems and make advancements.

In VCE Biology, students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary biology-related issues, and communicate their views from an informed position.

VCE Biology provides for continuing study pathways within the discipline and leads to a range of careers. Branches of biology include botany, genetics, immunology, microbiology, pharmacology and zoology. In addition, biology is applied in many fields of endeavour including biotechnology, dentistry, ecology, education, food science, forestry, health care, horticulture, medicine, optometry, physiotherapy and veterinary science. Biologists also work in cross-disciplinary areas such as bushfire research, environmental management and conservation, forensic science, geology, medical research and sports science.

Unit 1 Details:

How do living things stay alive?

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.

Areas of Study:

- How do organisms function?
- How do living systems sustain life?
- Practical Investigation

Unit 2 Details:

How is the continuity of life maintained?

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.

A student-directed research investigation into, and communication of, an issue related to genetics and/or reproductive science is to be undertaken in Area of Study 3. The investigation draws on content from Area of Study 1 and/or Area of Study 2.

Areas of Study:

- How does reproduction maintain the continuity of life?
- How is inheritance explained?
- Investigation of an issue

Assessment:

Students will be required to satisfactorily complete:

- experimental reports based on practical investigations
- an annotated poster of experimental work
- a written report on fieldwork
- Units 1 and 2 exams.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Biology.

Additional Information:

Marine Discovery Centre / Barwon Heads field trip in April – approx. $150.

YEAR 11 SCIENCE

Chemistry - Units 1 & 2

Course Description:

VCE Chemistry enables students to examine a range of chemical, biochemical and geophysical phenomena through the exploration of the nature of chemicals and chemical processes. In undertaking this study, students apply chemical principles to explain and quantify the behaviour of matter, as well as undertake practical activities that involve the analysis and synthesis of a variety of materials.

In VCE Chemistry, students develop a range of inquiry skills involving practical experimentation and research specific to the knowledge of the discipline, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary chemistry-related issues, and communicate their views from an informed position.

VCE Chemistry provides for continuing study pathways within the discipline and leads to a range of careers. Branches of chemistry include organic chemistry, inorganic chemistry, analytical chemistry, physical chemistry and biochemistry. In addition, chemistry is applied in many fields of endeavour including agriculture, bushfire research, dentistry, dietetics, education, engineering, environmental sciences, forensic science, forestry, horticulture, medicine, metallurgy, meteorology, pharmacy, sports science, toxicology, veterinary science and viticulture.

Unit 1 Details:

How can the diversity of materials be explained?

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.

A research investigation is undertaken in Area of Study 3 related to one of ten options that draw upon and extend the content from Area of Study 1 and/or Area of Study 2.

Areas of Study

- How can knowledge of elements explain the properties of matter?
- How can the versatility of non-metals be explained?
- Research Investigation

Unit 2 Details:

What makes water such a unique chemical?

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.
A practical investigation into an aspect of water quality is undertaken in Area of Study 3. The investigation draws on content from Area of Study 1 and/or Area of Study 2.
Areas of Study:

- How do substances interact with water?
- How are substances in water measured and analysed?
- Practical Investigation

Assessment:

Students will be required to satisfactorily complete:

- Experimental reports of practical investigations
- A report of an independent investigation of a topic
- A poster of a student-designed quantitative laboratory investigation
- Topic tests
- Units 1 and 2 exams.

Prerequisites:

Students must have successfully completed their Year 10 Science course.

Additional Information:

Heinemann Chemistry 1 textbook required,
Heinemann Chemistry 1 Student Workbook required. Scientific calculator (not a CAS calculator) required.

YEAR 11 SCIENCE

Physics - Units 1 & 2

Course Description:

Physics is a natural science based on observations, experiments, measurements and mathematical analysis with the purpose of finding quantitative explanations for phenomena occurring from the subatomic scale through to the planets, stellar systems and galaxies in the Universe. While much scientific understanding in physics has stood the test of time, many other areas continue to evolve. In undertaking this study, students develop their understanding of the roles of careful and systematic experimentation and modelling in the development of theories and laws. They undertake practical activities and apply physics principles to explain and quantify both natural and constructed phenomena.

In VCE Physics, students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary physics-related issues and to communicate their views from an informed position.

VCE Physics provides for continuing study pathways within the discipline and leads to a range of careers. Physicists may undertake research and development in specialist areas including acoustics, astrophysics and cosmology, atmospheric physics, computational physics, education, energy research, engineering, instrumentation, lasers and photonics, medical physics, nuclear science, optics, pyrotechnics and radiography. Physicists also work in cross-disciplinary areas such as bushfire research, climate science, forensic science, geology, materials science, neuroscience and sports science.

Unit 1 Details:

What ideas explain the physical world?

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.

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

Areas of Study:

- How can thermal effects be explained?
- How do electric circuits work?
- What is matter and how is it formed?

Unit 2 Details:

What do experiments reveal about the physical world?

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.

A student designed practical investigation relates to content drawn from Area of Study 1 and/or Area of Study 2 and is undertaken in Area of Study 3.

Areas of Study:

- How can motion be described and explained?
- Options around observations of the physical world.
- Practical Investigation

Assessment:

Students will be required to satisfactorily complete:

- Experimental reports of practical investigations
- Student presentation
- Topic tests
- Units 1 & 2 exams.

Prerequisites:

Students must have successfully completed their Year 10 Science course.

Additional Information:

Heinemann Physics 11 textbook required.
Scientific calculator (not a CAS calculator)

YEAR 11 SCIENCE

Psychology – Units 1 & 2

Course Description:

VCE Psychology provides students with a framework for exploring the complex interactions between biological, psychological and social factors that influence human thought, emotions and behaviour. In undertaking this study, students apply their learning to everyday situations including workplace and social relations. They gain insights into a range of psychological health issues in society.

In VCE Psychology, students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary psychology-related issues, and communicate their views from an informed position.

VCE Psychology provides for continuing study pathways within the discipline and leads to a range of careers. Opportunities may involve working with children, adults, families and communities in a variety of settings such as academic and research institutions, management and human resources, and government, corporate and private enterprises. Fields of applied psychology include educational, environmental, forensic, health, sport and organisational psychology. Specialist fields of psychology include counselling and clinical contexts, as well as neuropsychology, social psychology and developmental psychology. Psychologists also work in cross-disciplinary areas such as medical research or as part of on-going or emergency support services in educational, institutional and industrial settings.

Unit 1 Details:

How are behaviour and mental processes shaped?

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. The research investigation draws on content from Area of Study 1 and/or Area of Study 2.

Areas of Study:

- How does the brain function?
- What influences psychological development?
- Student directed research investigation

Unit 2 Details:

How do external factors influence behaviour and mental processes?

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. The investigation draws on content from Area of Study 1 and/or Area of Study 2.

Areas of Study:

- What influences a person's perception of the world?
- How are people influenced to behave in particular ways?
- Student directed practical investigation

Assessment:

Students will be required to satisfactorily complete assignments, tests, practical investigations and written examinations at mid-year and end-of-year.

Prerequisites:

Units 1 & 2 students would ideally have successfully completed the Year 10 Psychology Elective.

YEAR 11 TECHNOLOGY

Applied Computing – Units 1 & 2

*New Study Design for 2020

Course Description:

VCE Applied Computing focuses on the strategies and techniques for creating digital solutions to meet specific needs and to manage the threats to data, information and software security. The study examines the attributes of each component of an information system including people, processes, data and digital systems (hardware, software, networks), and how their interrelationships affect the types and quality of digital solutions.

VCE Applied Computing is underpinned by four key concepts: digital systems, data and information, approaches to problem solving, and interactions and impact. Students will be provided with opportunities to acquire and apply knowledge and technical skills to use digital systems efficiently, effectively and innovatively when creating digital solutions or software. Digital solutions are produced by following a design process which involves analysis, design, development and evaluation.

VCE Applied Computing facilitates student-centred learning that enables students to build capabilities in critical and creative thinking, and to develop communication and collaboration, and personal, social and information and communications technology (ICT) skills. Students are provided with practical opportunities and choices to create digital solutions for real-world problems in a range of settings.

VCE Applied Computing provides a pathway to further studies in areas such as business analysis, computer science, cybersecurity, data analytics and data science, data management, games development, ICT, networks, robotics, software engineering and telecommunications, and other careers relating to digital technologies.

Unit 1 Details:

In this unit students are introduced to the stages of the problem-solving methodology. Students focus on how data can be used within software tools such as databases and spreadsheets to create data visualisations, and the use of programming languages to develop working software solutions.

Areas of Study:

1. Data analytics: database software, spreadsheet software and data visualisation software.
2. Software development: Python, Javascript, PHP, web technologies using design process (problem-solving methodology).

Outcomes

1. On completion of this unit the student should be able to interpret teacher-provided solution requirements and designs, collect and manipulate data, analyse patterns and relationships, and develop data visualisations to present findings.
2. On completion of this unit the student should be able to interpret teacher-provided solution requirements to design, develop and evaluate a software solution using a programming language.

Unit 2 Details:

In this unit students focus on developing innovative solutions to needs or opportunities that they have identified, and propose strategies for reducing security risks to data and information in a networked environment. Students work collaboratively and select a topic for further study to create an innovative solution in an area of interest. The innovative solution can be presented as a proof of concept, a prototype or a product. As an introduction to cybersecurity, students investigate networks and the threats, vulnerabilities and risks to data and information.

Areas of Study:

1. Software Development: Inquiry based collaborative project to develop an innovative solution to an identified need or opportunity.
2. Project management: Using Gantt chart to track and manage projects.
3. Networks: Cybersecurity, data Security, network threat and vulnerabilities.

Outcomes

1. On completion of this unit the student should be able to, in collaboration with other students, analyse, design, develop and evaluate an innovative solution to an identified need or opportunity involving a digital system.
2. On completion of this unit the student should be able to respond to a teacher-provided case study to examine the capabilities and vulnerabilities of a network, design a network solution, discuss the threats to data and information, and propose strategies to protect the security of data and information.

Assessment:

Students will be required to satisfactorily complete 4 outcomes over both units. Assessment is based on theoretical knowledge and practical application of key skills. There is also a mid-year and end-of-year examination which involve theoretical and practical skills assessment.

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Applied Computing. It is recommended that prospective students have an interest in the application of computing to solve problems and transform information.

YEAR 11 TECHNOLOGY

Food Studies – Units 1 & 2

Course Description:

VCE Food Studies takes an interdisciplinary approach to the exploration of food, with an emphasis on extending food knowledge, skills, and building individual pathways to health and wellbeing through the application of practical food skills. VCE Food Studies provides a framework for informed and confident food selection and food preparation within today's complex architecture of influences and choices. Students explore food from a wide range of perspectives. They study past and present patterns of eating, Australian and global food production systems and the many physical and social functions and roles of food. They research economic, environmental and ethical dimensions of food and critically evaluate information, marketing messages and new trends.

Practical work is integral to Food Studies and includes cooking, demonstrations, responding to design briefs, dietary analysis, food sampling and taste-testing, sensory analysis, product analysis and scientific experiments.

Unit 1: Food origins

This unit focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world. 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 global trade in food. Students consider the origins and significance of food through inquiry into particular food-producing regions of the world.

Students also investigate Australian indigenous food prior to European settlement and how food patterns have changed over time. 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.

Unit 2: Food makers

In this unit, students investigate food systems in contemporary Australia, exploring both commercial food production industries and food production in small-scale domestic settings. 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 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. Students design new food products and adapt recipes to suit particular needs and circumstances.

Assessment:

Comprises of a combination of the following:

- a range of practical activities and records of related practical activities
- written reports
- media analysis
- research inquiry
- structured questions
- case study analyses
- annotated visual reports
- oral presentations or practical demonstrations

Prerequisites:

There are no prerequisites for entry into Units 1 & 2 Food Studies. However, successful completion of any Year 10 Food elective would be advantageous.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 TECHNOLOGY

PD & T: Resistant Materials - Units 1 & 2

Course Description:

Product design is a response to changing needs and to improve quality of life by designing creative, innovative and sustainable products. Product design is enhanced through knowledge of social, technological, economic, historical, ethical, legal, environmental and cultural factors. These factors influence the aesthetics, form and function of products.

Central to VCE Product Design and Technology is design thinking, which is applied through the product design process providing a structure for creative problem solving. The design process involves identification of a real need, problem or opportunity that is then articulated in a design brief. The need, problem or opportunity is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional products. Development of these solutions requires the application of technology and a variety of cognitive and physical skills, including design thinking, drawing and computer-aided design, testing processes and materials, planning, construction, fabrication and evaluation.

Unit 1 Details:

Sustainable product redevelopment.
This unit will investigate the following Areas of Study:

- Sustainable redevelopment of a product.
- Producing and evaluating a redeveloped product.

Unit 2 Details:

Collaborative Design.
This unit will investigate the following Areas of Study:

- Designing within a team.
- Producing and evaluating within a team.

Assessment:

Students will be required to satisfactorily complete: The two compulsory assessment tasks for this unit are:

- a design folio that contains an analysis of a product's sustainability, a design brief, evaluation criteria, research, visualisations and design options, working drawings, a scheduled production plan, and an evaluation report on the finished product.
- a finished product and records of production and modifications.
- Units 1 & 2 examinations.

Prerequisites: While there are no prerequisites for entry into Units 1 & 2 Product Design and Technology, it is highly recommended that students have a strong interest in design related subjects.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 TECHNOLOGY

PD & T: Textiles - Units 1 & 2

Course Description:

Product design is a response to changing needs and to improve quality of life by designing creative, innovative and sustainable products. Product design is enhanced through knowledge of social, technological, economic, historical, ethical, legal, environmental and cultural factors. These factors influence the aesthetics, form and function of products.

Central to VCE Product Design and Technology is design thinking, which is applied through the product design process providing a structure for creative problem solving. The design process involves identification of a real need, problem or opportunity that is then articulated in a design brief. The need, problem or opportunity is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional products. Development of these solutions requires the application of technology and a variety of cognitive and physical skills, including design thinking, drawing and computer-aided design, testing processes and materials, planning, construction, fabrication and evaluation.

For VCE Product Design and Technology Textiles students assume the role of a designer-maker. In adopting this role, they develop and apply knowledge of factors that influence design and address the design factors relevant to their design situation.

Unit 1 Details:

Sustainable product redevelopment
This unit will investigate the following Areas of Study:

- Sustainable redevelopment of a textiles product
- Producing and evaluating a redeveloped textiles product

Unit 2 Details:

Collaborative Design
This unit will investigate the following Areas of Study:

- Designing within a team
- Producing and evaluating within a team

Assessment:

Students will be required to satisfactorily complete:
The two compulsory assessment tasks for this unit are:

- a design folio that contains an analysis of a textile product's sustainability, a design brief, evaluation criteria, research, visualisations and design options, working drawings, a scheduled production plan, and an evaluation report on the finished product.
- a finished textiles product and records of production and modifications.
- Units 1 & 2 examinations.

Prerequisites:

While there are no prerequisites for entry into Units 1 & 2 Product Design and Technology, it is highly recommended that students have a strong interest in design related subjects.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 TECHNOLOGY

Systems Engineering - Units 1 and 2

(Bonus subject status for *Engineering* by most Universities)

Course description:

VCE Systems Engineering promotes innovative systems thinking and problem-solving skills through the application of the systems engineering process. The study is based on integrated mechanical and electrotechnological engineered systems. The study provides opportunities for students to learn about and engage with systems from a practical and purposeful perspective. Students gain knowledge and understanding about technological systems and their applications. VCE Systems Engineering integrates aspects of designing, planning, producing, testing and evaluating in a project management process. It prepares students for careers in engineering, manufacturing and design through a university or TAFE vocational study pathway, employment, apprenticeships and traineeships. The study provides a rigorous academic foundation and a practical working knowledge of design strategies, production processes and evaluation practices. People with these skills, and the ability to apply systems engineering processes, are in increasing demand as participants in teams that are engaged with complex and multidisciplinary projects.

Unit 1: Mechanical Systems

Outcome One:

On completion of this unit the student should be able to describe and apply basic engineering concepts and principles, and use components to design and plan a mechanical system using the systems engineering process.

Key Skills include the ability to:

- Describe and explain how basic mechanical systems function, using appropriate engineering terms for the components and operational processes that make up these systems and subsystems
- Identify and represent individual components and mechanical systems in symbolic form, using IPO diagrams, and simulation software
- Identify and select appropriate components and subsystems that will form operational systems
- Measure system parameters using appropriate measuring/testing equipment, and interpret results
- Perform basic calculations on linkages, gear ratios and pulleys
- Apply the Systems Engineering Process and identify relevant influencing factors on the development and use of a system to research, design and plan a functional mechanical or electro-mechanical system
- Develop criteria to evaluate the finished operational system
- Develop a suitably detailed work plan and components/materials list for the construction of a system using appropriate communication techniques.

Outcome Two:

On completion of this unit the student should be able to produce, test, diagnose and evaluate a mechanical system using the systems engineering process.

Key Skills include the ability to:

- Select components, elements and materials that are appropriate for the system
- Use a range of processes to implement the workplan to make the system and to meet the requirements of the design brief
- Implement risk assessment and management processes
- Correctly select and safely use tools, equipment and machines in the production processes in accordance with OH&S requirements
- Undertake finishing techniques and processes
- Manage all aspects of the production process through to completion of the system, using ongoing evaluation; and record decision making, relevant data, changes and modifications
- Test, measure and record appropriate system parameters to evaluate system performance
- Use and evaluate the Systems Engineering Process.

Unit 2: Electrotechnological Systems

Outcome One:

On completion of this unit the student should be able to investigate, represent, describe and use basic electrotechnological and basic control engineering concepts, principles and components, and design and plan an electrotechnological system using the systems engineering process.

Key Skills include the ability to:

- Describe the operation of basic electrotechnology systems, open and closed loop systems and subsystems using appropriate engineering terminology
- Identify and represent electrotechnology systems in diagrammatic and symbolic forms such as flow charts, block diagrams, open and closed loop diagrams, and commonly used electronic components in symbolic form as used in a circuit schematic diagram
- Select appropriate electrotechnology subsystems, and electronic and mechanical components that will form operational systems and subsystems
- Measure, test and evaluate electrotechnology system parameters using appropriate measuring/ testing equipment; measure voltage, current and resistance and interpret the results
- Apply formulas to solve and calculate electrical circuit parameters using Ohm's Law and power calculations
- Use information and communications technology, and simulation and demonstration software to represent and demonstrate electrotechnology principles
- Read and interpret the resistor values in four and five colour band resistors with reference to a colour code chart
- Describe the factors that influence the design, planning, production and use of their electrotechnology system
- Apply the Systems Engineering Process to research, design and plan an operational electrotechnology system
- Develop criteria to evaluate the finished functional system
- Develop a suitably detailed workplan and components/materials list for the construction of a system using appropriate communication techniques.

Outcome Two:

On completion of this unit the student should be able to produce, test and evaluate an electrotechnological system, using the systems engineering process.

Key Skills include the ability to:

- Identify and select components, elements and materials that are appropriate for the system
- Use printed circuit boards and soldering and a range of other processes to implement the workplan to make the system
- Implement risk assessment and management processes
- Select, and correctly and safely use, materials, tools, equipment and machines in the production process in accordance with OH&S requirements
- Undertake finishing techniques and processes
- Manage all aspects of the manufacturing process through to completion of the system, using ongoing evaluation; and record decision making, relevant data, changes and modifications Monitor quality related to the system and undertake appropriate repair and maintenance procedures
- Test, measure and record appropriate system parameters to evaluate system performance Evaluate the use of the Systems Engineering Process, and the system produced through interpretation of measurements and use of the previously established evaluation criteria Suggest modifications and improvements; and identify how the factors that influenced the development and use of the system have been taken into account.

Assessments: (Unit 1 and Unit 2)

- A folio that demonstrates at least one completed project and a sustained body of work.
- Mid-year exam based on Unit 1 Coursework. (One and a half hours duration)
- End-of-year exam based on Units 1 and 2 Coursework. (One and a half hours duration).

Prerequisites: There are no prerequisites for entry to Units 1 and 2 but interest in emerging technologies and engineering would be advantageous.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 11 VCE Options

Work and Personal Development Skills

This year-long subject from the Intermediate strand of the VCAL certification allows students to learn through project based applied learning.
The subject aims to develop skills, knowledge and attitudes which lead toward social responsibility, building community, civic responsibility, improved self-confidence, self-esteem and valuing civic participation.
Outcomes include problem solving, leadership, teamwork, accepting responsibility for goal achievement, reflection on knowledge and skills for decision-making.
Projects selected are student centred. Possible projects may include the Foundation for Young Australians' *$20 Boss Program*, First Aid Certificates, working with people with special needs, collaborations with local organisations such as the Heidelberg Historical Society, sporting groups, financial literacy projects, workplace bullying training, hospitality courses, aged care and school landscaping projects. Students may also take part in Real Industry Job Interviews.
Students completing this program maybe considering working after completing VCE, rather than further study, may find choosing 6 meaningful subjects for Year 11 to be a challenge and/or considering VCAL as their preferred Year 12 certificate, but at this stage, want to keep the VCE pathway as an option.
Program Details:
Students will undertake the following subjects:

1. VCE Units 1 and 2 English
2. VCE Units 1 and 2 General Mathematics or Foundation Mathematics
3. A VCE subject of choice
4. Work and Personal Development Skills - VCAL subject (NEW!)
5. VET study offered through the Northern Melbourne VET Cluster
6. VCE Units 1 and 2 SWL (structured work placement) in an industry aligned to their VET study or select another VCE subject

Pathways:

Work, apprenticeship, further study in TAFE sector or progression to the Senior VCAL certificate. Students undertaking this subject will also qualify for VCE certification, provided enough VCE units are completed and continue on to complete VCE and achieve an ATAR.
Applications:
Students will be selected for this sought after program by way of application and interview. Numbers will be capped at 15 students.

YEAR 12 The ARTS

Drama - Units 3 & 4

Course Description:

VCE Drama focuses on the creation and performance of characters and stories that communicate ideas, meaning and messages. Students use creative processes, a range of stimulus material and play-making techniques to develop and present devised work. Students learn about and draw on a range of performance styles relevant to practices of ritual and story-telling, contemporary drama practice and the work of significant drama practitioners.

Students explore characteristics of selected performance and apply and manipulate conventions, dramatic elements and production areas. They use performance skills and expressive skills to explore and develop role and character. The performances they create will go beyond the reality of life as it is lived and may pass comment on or respond to aspects of the real world. These performances can occur in any space. Students also analyse the development of their own work and performances by other drama practitioners.

Unit 3 Details:

Devised ensemble performance

- devising and presenting ensemble performance
- analysing a devised ensemble performance
- analysing and evaluating a professional drama performance.

Unit 4 Details:

Devised solo performance

- demonstrating techniques of solo performance
- devising a solo performance
- analysing and evaluating a devised solo performance.

Assessment:

Unit 3 Coursework – 30%

- creating and presenting an ensemble performance task (in groups)
- written analysis of how the ensemble performance was created
- written analysis of a selected play from the VCAA playlist.

Unit 4 Coursework – 10%

- creating and presenting a solo performance task
- written analysis of how the solo performance tasks were created.

Solo Performance Examination – 35%
Written Examination – 25%

Prerequisites:

It is recommended that students have successfully completed Units 1 & 2 Drama, but it is not essential.

Additional Information:

In order to complete their coursework and exams, all students must attend an excursion to view a selected play from the VCAA Drama playlist. This will be likely to take place in Semester 1 and students usually see the play twice.

YEAR 12 The ARTS

Media – Units 3 & 4

Course Description:

Units 3 & 4 builds on the topics studied in Media Units 1 & 2. This study will allow students to develop and refine their skills in the areas of production and critical analysis to express their ideas through media forms (film, photography, print) and gain self-confidence and communication skills through their selected expression. Students will continue to build their understanding of the relationship between media products, their production context and the audiences that consume them.

Unit 3 Details:

Media Narratives and Pre-Production

In this unit, students explore stories that circulate in society through media narratives. They consider the use of media codes and conventions to structure meaning, and how this construction is influenced by the social, cultural, ideological and institutional contexts of production, distribution, consumption and reception. Students assess how audiences from different periods of time and contexts are engaged by, consume and read narratives using appropriate media language. Students use the pre-production stage of the media production process to design the production of a media product for a specified audience. They investigate a media form that aligns with their interests and intent, developing an understanding of the media codes and conventions appropriate to audience engagement, consumption and reception within the selected media form. They explore and experiment with media technologies to develop skills in their selected media form, reflecting on and documenting their progress. Students undertake pre-production processes appropriate to their selected media form and develop written and visual documentation to support the production and post-production of a media product in Unit 4.

Areas of Study:

1. Narrative and Ideology
2. Media Production Development
3. Media Production Design

Unit 4 Details:

Media Production and Issues in the Media

In this unit, students focus on the production and post-production stages of the media production process, bringing the media production design created in Unit 3 to its realisation. They refine their media production in response to feedback and through personal reflection, documenting the iterations of their production as they work towards completion.
Students explore the relationship between the media and audiences, focusing on the opportunities and challenges afforded by current developments in the media industry. They consider the nature of communication between the media and audiences, explore the capacity of the media to be used by governments, institutions and audiences, and analyse the role of the Australian government in regulating the media.

Areas of Study:

1. Media Production
2. Agency and Control in and of the Media

Assessment:

- School-assessed coursework for Unit 3 (two written tests)
- School-assessed coursework for Unit 4 (one written test)
- School-assessed task work over Unit 3 and 4 (two experiments, one production design plan [folio], and final product).
- End-of-year two hour and fifteen minute active examination.

Prerequisites:

There are no prerequisites for Units 3 & 4 Media, although Units 1 & 2 Media is recommended.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 The ARTS

Music Performance – Units 3 & 4

Course Description:

These units focus on building and refining performance and musicianship skills through group and solo works. Students present a program of works representing a range of styles and diversity of character for performance. They develop instrumental techniques that enable them to interpret the works and expressively shape their performances. Students develop their listening, aural, theoretical and analytical musicianship skills and apply this knowledge when preparing and presenting performances. For the school-assessed component, students must be involved in a teacher led/directed ensemble.

Unit 3 Details:

Develop skills to present a musically engaging performance. Present solo and group works. Investigate stylistic characteristics, performance techniques and performance conventions.

Areas of Study:

- prepare and perform a program of group and solo works, and demonstrate a diverse range of techniques and expressive qualities and an understanding of a wide range of music styles and performance conventions.
- demonstrate and discuss instrumental techniques and strategies relevant to the performance of selected works.
- identify, re-create, notate and transcribe short excerpts of music, and discuss the interpretation of expressive elements of music in pre-recorded works.

Assessment:

- a demonstration of performance techniques, technical work and exercises. Also a description of how the selected technical work and exercises support a student's development and a performance of unprepared material – (10% of final study score)
- a test that includes aural, written and practical components – (10% of final study score)

Unit 4 Details:

Refine skills to present a musically engaging performance to an audience. Present solo and group works. Investigate stylistic characteristics, performance techniques and performance conventions.

Areas of Study:

- present an accurate and expressive performance of all group and solo works being prepared for the external performance exam.
- demonstration of technical work and exercises and an explanation of how the selected technical work and exercises support a student's development
- identify, re-create, notate and transcribe excerpts of music and discuss the interpretation of expressive elements of music in pre-recorded work.

Assessment:

- performance of solo works – (External Performance - 50% of final study score)
- External aural and written exam – (20% of final study score)
- A demonstration of material selected to assist with development of general instrumental technique and preparation of works selected for Outcome 1 including exercise/s created by the student AND a discussion of how the selected material is supporting the student's development as an instrumentalist and their preparation of works for Outcome 1. The discussion may be presented in one or both of the following formats: oral; multimedia - (10% of final study score)
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Prerequisites:

A minimum level of grade 6 A.M.E.B or equivalent on your chosen instrument.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 The ARTS

Studio Arts - Units 3 & 4

Course Description:

Studio Arts provides a framework for the establishment of effective art practices through an understanding and application of a studio process. This course provides fine art studies in areas such as drawing, painting, printmaking, mixed media and sculpture. Students generate, explore and communicate ideas through specific studio forms and develop and use specialized skills in a range of media and techniques. The theoretical component of the study focuses on the role and practices of artists in society. Students develop an understanding of the way artists work in a range of cultures and periods of time, the artists' perceptions, beliefs and actions and their relationship with the viewer. Student research focuses on critical, reflective and creative thinking, the visual analysis of artworks and the investigation of how artists have interpreted sources of inspiration and influences in their art making. Students also study art industry contexts and the presentation and exhibition of artworks in art galleries and exhibition spaces. Visiting a variety of art exhibition spaces is integral to the student's artistic and creative development.

Unit 3 Details: Studio Practices and Processes

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.

Outcome One

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.

Outcome Two

On completion of this unit, the student 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.

Outcome Three

On completion of this unit, the student should 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.

Assessment:

- Exploration Proposal
- Recorded Studio Process
- Artist study Essay

Unit 4 Details: Studio Practice and Industry Contexts

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. This unit also investigates aspects of artists' involvement in the art industry, focusing on a least two different exhibitions, that the student has visited in the current year of study with reference to specific artworks in those exhibitions.

Outcome 1

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.

Outcome 2

On completion of this unit the student 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.

Outcome 3

On completion of this unit, the student should 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.

Assessment:

- At least 2 finished artworks
- Studio Process Documentation
- Artist Industry written responses

Prerequisites:

There are no pre-requisites for entry into Units 3 & 4 Studio Art.

Note: There is a fee associated with this course with Studio Arts 3/4 of $140.00 per year (subject to change).

YEAR 12 The ARTS

Theatre Studies - Units 3 & 4

(Please note: Theatre Studies Units 3 & 4 will not be offered in 2020. See Drama Units 3 & 4 as an alternative)

Course Description:

In Unit 3, students develop an interpretation of a script through the three stages of the theatre production process: planning, development and presentation. Students specialise in two production roles, working collaboratively, creatively and imaginatively to realise the production of a script. They use knowledge developed during this process to analyse and evaluate the ways work in production roles can be used to interpret script excerpts previously unstudied.

In Unit 4, students study a scene and an associated monologue. They initially develop an interpretation of the prescribed scene. This work includes exploring theatrical possibilities and using dramaturgy across the three stages of the production process. Students then develop a creative and imaginative interpretation of the monologue that is embedded in the specified scene. To realise their interpretation, they work in production roles as an actor and director, or as a designer.

Unit 3 Details:

Producing theatre

- staging theatre
- interpreting a script
- analysing and evaluating theatre

Unit 4 Details:

Presenting an interpretation

- researching and presenting theatrical possibilities
- interpreting a monologue
- analysing and evaluating a performance

Assessment:

Unit 3 Coursework – 30%

- interpreting a script across the stages of the production process (class production)
- written exploration of concepts and ideas for a creative interpretation of a script
- written analysis of a selected play from the VCAA playlist

Unit 4 Coursework – 15%

- written report on dramaturgical decisions for an interpretation of a monologue
- written analysis of acting, direction and design of a selected play from the VCAA playlist

Monologue Examination – 25%
Written Examination – 30%

Prerequisites:

It is recommended that students have successfully completed Units 1 & 2 Theatre Studies, but it is not essential.

Additional Information:

In order to complete their coursework and exams, all students must attend two excursions to view selected plays from the VCAA Theatre Studies playlist.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 The ARTS

Visual Communication Design - Units 3 & 4

Course Description:

The Visual Communication Design study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Students look at ways designers create and communicate to influence everyday life for individuals, communities and societies. The study emphasises the importance of developing a variety of drawing skills to visualise thinking and to present potential solutions. Students employ a design process to generate and develop their own visual communications. Students develop the skills to communicate ideas through manipulation and organisation of design elements, design principles, selected media, materials and methods of production.

UNIT 3 Details: Visual communication design practices

- Students analyse and create visual communication from each design field. They use manual, digital and technical drawing conventions.
- Students study the work of contemporary Australian Designers to learn ways the Design Process can be applied. Students learn about factors that influence design including legal obligations and copyright.
- Students develop their own brief and research and generate ideas to meet the needs of that brief. Outcome 3 is the start of student's exploration of their own design process. They will use design-thinking strategies to come up with ideas for two finished presentations that will continue to be explored in Unit 4.

UNIT 4 Details: Visual communication design development, evaluation and presentation

- Students focus on the design process stages of the development of concepts and refinement. Using separate design processes, students develop and refine design concepts that satisfy each of the communication needs of the brief established in Unit 3.
- Students deliver a 'pitch' to present their design folio to an audience.
- Students produce two final visual communication presentations, which are the refinements of the concepts developed in Outcome 1 Unit 4.

Assessment:

- School Assessed Coursework for Unit 3 (Practical folio SAC as well as a written SAC)
- School Assessed Task for Unit 3 and 4 (Folio)
- School Assessed Coursework for Unit 4 (Pitch)
- End of year exam (based on unit 3 and 4 coursework)

Prerequisites:

To have a reasonable chance of success in these units, students should have a solid record of achievement in Units 1 and 2 Visual Communication Design.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 – ENGLISH

English – Units 3 & 4

Beginning 2020, Viewbank College students will have the opportunity to study Units 3 and 4 Literature instead of Units 3 and 4 English. Students who have completed Units 1 and 2 Literature will be given priority. However, other interested students will need to have proven capability in their literary studies and have the approval of the English Domain Leader. Students also have the opportunity to study both Literature and English.

Course Description:

The study of English contributes to the development of literate individuals capable of critical and creative thinking, aesthetic appreciation and creativity. This study also develops students' ability to create and analyse texts, moving from interpretation to reflection and critical analysis. Through engagement with texts from the contemporary world and from the past, and using texts from Australia and from other cultures, students studying English become confident, articulate and critically aware communicators and further develop a sense of themselves, their world and their place within it. English helps equip students for participation in a democratic society and the global community.

Unit 3 Details

The focus of this unit is on reading and responding to texts analytically and creatively. Students identify, discuss and analyse how the features of selected texts create meaning and how they influence interpretation. They present sustained creative responses to selected texts, demonstrating their understanding of the world of the texts and how texts construct meaning. Students also analyse arguments and the use of persuasive language in texts. They read and view media texts in a variety of forms and develop their understanding of the ways in which language and argument complement one another in positioning the reader.

Areas of Study:

1. Reading and Creating Texts
2. Analysing Argument

Unit 4 Details

In this unit students explore the meaningful connection between two texts by analysing the interplay between character and setting, voice and structure, and how ideas, issues and themes are conveyed. They create an oral presentation intended to position audiences about an issue currently debated in the media. Students write a statement of intention to accompany their oral presentation, articulating the intention of decisions made in the planning process, and how these demonstrate the understanding of argument and persuasive language.

Areas of Study:

1. Reading and Comparing Texts
2. Presenting Argument

Assessment

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. The students' level of achievement will be determined by school assessed coursework and an end of year examination.

YEAR 12 – ENGLISH

English as an Additional Language (EAL) – Units 3 & 4

Course Description:

This study is designed for students whose first language is not English and who qualify for enrolment. It is designed to enable students to demonstrate their understanding through a range of spoken, written and visual forms, including class discussion, note-taking, graphic organisers and responses to short-answer questions.

Unit 3 Details

Areas of Study:

1. Reading and Creating Texts
2. Analysing Argument
3. Listening to Texts

Unit 4 Details

In this unit students explore the meaningful connection between two texts by analysing the interplay between character and setting, voice and structure, and how ideas, issues and themes are conveyed. They create an oral presentation intended to position audiences about an issue currently debated in the media. Students write a statement of intention to accompany their oral presentation, articulating the intention of decisions made in the planning process, and how these demonstrate the understanding of argument and persuasive language.

Areas of Study:

1. Reading and Comparing Texts
2. Presenting Argument

Assessment:

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. The student's level of achievement will be determined by school assessed coursework and an end of year examination.
Students need to meet the VCAA criteria for enrolment in EAL.

YEAR 12 – ENGLISH

Literature – Units 3 & 4

Beginning 2020, Viewbank College students will have the opportunity to study Units 3 and 4 Literature instead of Units 3 and 4 English. Students who have completed Units 1 and 2 Literature will be given priority. However, other interested students will need to have proven capability in their literary studies and have the approval of the English Domain Leader. Students also have the opportunity to study both Literature and English.

Course Description:

VCE Literature focuses on the meaning derived from texts, the relationship between texts, the contexts in which texts are produced and read, and the experiences the reader brings to the texts.
In VCE Literature students undertake close reading of texts and analyse how language and literary elements and techniques function within a text. The study provides opportunities for reading deeply, widely and critically, responding analytically and creatively, and appreciating the aesthetic merit of texts.
VCE Literature enables students to examine the historical and cultural contexts within which both readers and texts are situated. It considers how literary criticism informs the readings of texts and the ways texts relate to their contexts and to each other. Accordingly, the texts selected for study are drawn from the past through to the present, and vary in form and social and cultural contexts.

Unit 3 Details

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. Students draw on their study of adaptations and transformations to develop creative responses to texts.

Areas of Study:

1: Adaptations and Transformations
2: Creative Responses to Texts

Unit 4 Details

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.

Areas of Study:

1: Literary Perspectives
2: Close Analysis

Assessment:

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. The students' level of achievement will be determined by school assessed coursework and an end of year examination.

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YEAR 12 – ENGLISH

Philosophy – Units 3 & 4

Course Description:

This course aims to investigate human nature through the mind/body debate, questions the multiple aspects that relate to personal identity and critically examines the idea of the good life. Students will learn to think critically and with an open mind, fostering the reflection necessary for deep insights and ethical decision making needed at all levels of society. The course is designed to nurture curiosity, problem solving skills, open-mindedness and intellectual rigour. It involves explicitly developing the habits of clarifying concepts, analysing problems and constructing reasoned and coherent arguments. It encourages students to reflect critically on their own thinking and helps them to develop a sophisticated and intelligible world view. The ability to think philosophically is highly regarded in careers where conceptual analysis, strategic thinking, insightful questions and carefully reasoned arguments are needed.

Unit 3 Details:

This unit considers basic questions regarding the mind and the self through two key questions: Are human beings more than their bodies? Is there a basis for the belief that an individual remains the same person over time? Students critically compare the viewpoints and arguments put forward in set texts from the history of philosophy to their own views on these questions and to contemporary debates.

Areas of Study:

1. Minds and bodies
2. Personal identity

Unit 4 Details:

This unit considers the crucial question of what it is for a human to live well. What does an understanding of human nature tell us about what it is to live well? What is the role of happiness in a well lived life? Is morality central to a good life? How does our social context impact on our conception of a good life? In this unit, students will explore texts by both ancient and modern philosophers that have had a significant impact on contemporary western ideas about the good life. Students will critically compare the viewpoints and arguments in set texts from both ancient and modern periods to their own views on how we should live, and use their understandings to inform their analysis of contemporary debates.

Areas of Study:

1. Conceptions of the good life
2. Living the good life in the twenty-first century

Assessment:

The student's level of achievement in Units 3 and 4 will be determined by School-assessed coursework for each Area of Study and an end-of-year examination.

- School-assessed coursework for Unit 3 will contribute 25 percent.
- School-assessed coursework for Unit 4 will contribute 25 percent.
- Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 percent.

Prerequisites:

Although it is not a required prerequisite, it is recommended that students have successfully undertaken Units 1 and 2 in Philosophy. Students wishing to study Philosophy should be mature, respectful and have a keen and open attitude. A high level of critical and analytical thinking, processing and writing skills is beneficial.

YEAR 12 HEALTH & PHYSICAL EDUCATION

Health and Human Development – Units 3 & 4

Course Description:

Throughout the study of VCE Health and Human Development (HHD), students investigate health and human development in local, Australian and global communities.

Unit 3 Details:
This unit looks at health, wellbeing and illness as multidimensional, dynamic and subject to different interpretations and contexts. Students begin to explore health and wellbeing as a global concept and to take a broader approach to inquiry. They look at the fundamental conditions required for health improvement, as stated by the World Health Organization (WHO). Students also focus on health promotion and improvements in population health over time and look at various public health approaches and the interdependence of different models as they research health improvements and evaluate successful programs.

Areas of Study

- Understanding health and wellbeing
- Promoting health and wellbeing

Unit 4 Details:
This unit examines health and wellbeing, and human development in a global context. Students build their understanding of health in a global context through examining changes in burden of disease over time and studying the key concepts of sustainability and human development. They consider the health implications of increased globalisation and worldwide trends relating to climate change, digital technologies, world trade and the mass movement of people. Students looks at global action to improve health and wellbeing and human development, focusing on the United Nations' (UN's) Sustainable Development Goals (SDGs) and the work of the World Health Organization (WHO).

Areas of Study

- Health and wellbeing in a global context
- Health and the Sustainable Development Goals

Assessment:

The student's performance on each outcome is assessed using one or more of the following:

- a short written report, such as a media analysis, a research inquiry, a blog or a case study analysis
- an oral presentation, such as a debate or a podcast
- a visual presentation such as a graphic organiser, a concept/mind map, an annotated poster, a digital presentation
- structured questions, including data analysis.

Prerequisites:

To have a reasonable chance of success in these units, students should have a solid record of achievement in Health and Human Development Unit 1 & 2.

Additional Information:

Unit 1 & 2 Health and Human Development is an excellent introduction to Unit 3 & 4. The four units complement each other and lead to careers in health sciences.

YEAR 12 HEALTH & PHYSICAL EDUCATION

Physical Education – Units 3 & 4

Course Description:

VCE Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between psychological, physiological and sociological factors that influence physical performances, and participation in physical activity.

The assimilation of theoretical understanding and practice is central to the study of VCE Physical Education. Students participate in practical activities to examine the core concepts that underpin movement and that influence performance and participation in physical activity, sport and exercise.

Through integrated physical, written, oral and digital learning experiences, students apply theoretical concepts and reflect critically on factors that affect all levels of performance and participation in sport, exercise and physical activity.

This VCE study is suitable for students with a wide range of aspirations, including those who wish to pursue further formal study at tertiary level or in vocational education and training settings. The study prepares students for such fields as the health sciences, exercise science and education, as well as providing valuable knowledge and skills for participating in their own sporting and physical activity pursuits to develop as critical practitioners and lifelong learners.

Unit 3 Details:

Movement skills and energy for physical activity

This unit 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 skills and apply biomechanical and skill acquisition principles to improve and re ne 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 relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Unit 4 Details:

How does the body produce energy?

In this area of study students explore the various systems and mechanisms associated with the production of energy required for human movement. They consider the cardiovascular, respiratory and muscular systems and the roles of each in supplying oxygen and energy to the working muscles. They examine the way in which energy for activity is produced by the three energy systems and the associated fuels used for activities of varying intensity and duration. Students also consider the many factors contributing to fatigue as well as recovery strategies used to return to pre-exercise conditions. Through practical activities students explore the interplay of the energy systems during physical activity.

Assessment:

Assessment tasks for Units 1 - 4 will be drawn from the following activities:

- a practical laboratory report linking key knowledge and key skills to practical activity
- a case study analysis
- data analysis
- a critically reflective folio/diary of participation in practical activities
- a visual presentation such as a graphic organiser, concept/mind map, annotated poster, presentation file
- a multimedia presentation, including two or more data types (for example, text, still and moving images, sound) and involving some form of interaction
- a physical simulation or model
- an oral presentation such as podcast, debate
- a written report
- a test

Prerequisites:

There are no prerequisites for entry to Units 3 and 4, although Units 1 and 2 provide valuable understanding.

YEAR 12 HUMANITIES

Accounting – Units 3 & 4

Course Description:

VCE Accounting explores the financial recording, reporting, analysis and decision-making processes of a sole proprietor small business. Students study both theoretical and practical aspects of accounting. They collect, record, report and analyse financial data, and report, classify, verify and interpret accounting information. Students apply critical thinking skills to a range of business situations to model alternative outcomes and to provide accounting advice to business owners.

Unit 3 Details:

This unit focuses 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. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve business performance.

Areas of Study:

1. Recording and analysing financial data
2. Preparing and interpreting accounting reports

Unit 4 Details:

In this unit students 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. They analyse and interpret accounting reports and graphical representations to evaluate the performance of a business.

Areas of Study:

1. Extension of recording and reporting
2. Budgeting and decision-making

Assessment:

Assessment comprises a combination of classwork exercises, in class tests in addition to the end of year examination.

Unit 3: School Assessed Coursework: 25%

Unit 4: School Assessed Coursework: 25%

Final Examination: 50%

Prerequisites:

It is highly recommended that students have completed Units 1 and 2 Accounting prior to undertaking Unit 3 Accounting. Students must undertake Unit 3 prior to undertaking Unit 4.

Additional Information:

Students will need to purchase a non-graphics calculator, which must be brought to every class.

YEAR 12 HUMANITIES

Business Management – Units 3 & 4

Course Description:

VCE Business Management examines the ways businesses manage resources to achieve objectives. The VCE Business Management study design follows the process from the first idea for a business concept, to planning and establishing a business, through to the day-to-day management of a business. It also considers changes that need to be made to ensure continued success of a business. Students develop an understanding of the complexity of the challenges facing decision makers in managing these resources.

Unit 3 Details: Managing a business

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.

The Areas of Study:

1. Business foundations
2. Managing employees
3. Operations management

Unit 4 Details: Transforming a business

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.

The Areas of Study:

1. Reviewing performance – the need for change
2. Implementing change.

Assessment:

- School-assessed Coursework for Unit 3 (25%)
- School-assessed Coursework for Unit 4 (25%)
- End-of-year two hour examination (50%)

School-assessed Coursework for Units 3 and 4 will each contribute 25 per cent. The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 per cent.

Prerequisites:

No prerequisites, however, it is advised that successful completion of Units 1 and 2 Business Management will be beneficial for this subject.

YEAR 12 HUMANITIES

Economics – Units 3 & 4

Course Description:

Studying Economics as a social science enables students to gain valuable insight into the economic problems that they may face on an individual basis and collectively as a society to meet the needs and wants of citizens, and may therefore assist them in making more informed and responsible decisions.

Unit 3: Australia's Economic Prosperity

Students investigate the role of the market in allocating resources and examine the factors that are likely to affect the price and quantity traded for a range of goods and services. Students consider contemporary issues to explain the need for government intervention in markets and why markets might fail to maximise society's living standards.

Areas of study:

1. An introduction to microeconomics: On completion of this unit the student should be able to explain how markets operate to allocate resources, and discuss the effect of government intervention on market outcomes.

2. Domestic macroeconomic goals-On completion of this unit the student should be able to analyse key contemporary factors that may have influenced the Australian Government's domestic macroeconomic goals over the past two years and discuss how achievement of these goals may affect living standards.

3. Australia and the world economy-On completion of this unit the student should be able to explain the factors that may influence Australia's international transactions and evaluate how international transactions and trade liberalisation may influence the current account balance, the Australian Government's domestic macroeconomic goals and living standards in Australia.

Unit 4: Managing the Economy:

This unit focuses on the role of aggregate demand policies in stabilising the business cycle to achieve the Australian Government's domestic macroeconomic goals. Students consider how the Australian Government utilises aggregate supply policies to manage the Australian economy.

Areas of study:

1. Aggregate demand policies and domestic economic stability-On completion of this unit the student should be able to discuss the nature and operation of aggregate demand policies and analyse how the policies may influence the Australian Government's domestic macroeconomic goals and living standards.

2. Aggregate supply policies-On completion of this unit the student should be able to discuss the nature and operation of aggregate supply policies and analyse how the policies may influence the Australian Government's domestic macroeconomic goals and living standards.

Assessment:

Unit 3: School Assessed Coursework: 25%
Unit 4: School Assessed Coursework: 25%
Final Examination: 50%

Prerequisites:

There are no prerequisites for Economics but it is highly recommended that students have undertaken Units 1 & 2 Economics.

YEAR 12 HUMANITIES

Geography – Units 3 & 4

Course Description:

The study of Geography is a structured way of exploring, analysing and understanding the characteristics of places that make up our world. Geographers are interested in investigating key questions concerning places and geographic phenomena.

Unit 3 Details: Changing the Land

This unit focuses on two investigations of geographical change: change to land cover and change to land use.
Students investigate three major processes that are changing land cover in many regions of the world and the distribution and causes of these three processes. The three processes investigated are melting glaciers and ice sheets, deforestation and desertification.
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.

Areas of Study:

1. *Land use change* - On completion of this unit the student should be able to analyse, describe and explain land use change and assess its impacts.
2. *Land cover change* - On completion of this unit the student should 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.

Note: Fieldwork is a compulsory component of Unit 3.

Unit 4 Details: Human Population – Trends and Issues

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.
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.

Areas of Study:

1. *Population Dynamics* - On completion of this unit, the student should be able to analyse, describe and explain population dynamics on a global scale.
2. *Population Issues and Challenges* - On completion of this unit the student should be able to analyse, describe and explain the nature of significant population issues and challenges in selected locations and evaluate responses.

Assessment:

Unit 3 School-assessed Coursework; 25%
Unit 4 School-assessed Coursework: 25%
Written end-of-year examination: 50%

Prerequisites:

There are no prerequisites for Geography but it is highly recommended that students have undertaken Units 1 & 2 Geography or Year 10 Geography.

Additional Information:

Fieldwork is a compulsory component of this course so there will be a cost for this – between $15-$30.

YEAR 12 HUMANITIES

Global Politics – Units 3 & 4

Course Description:

Global Politics is the study of the political, social, cultural and economic forces that shape interactions between states and other global actors in the contemporary world. It examines the interconnectedness of the contemporary global political arena and the impact of globalisation on culture, sovereignty, human rights and the environment. It examines the nature and power of key global actors and the types of power used by an Asia-Pacific state to achieve its national interests. It considers global ethical issues including human rights, people movement, development and arms control and explores the nature and effectiveness of global responses to crises such as climate change, armed conflict, terrorism and economic instability.

Unit 3: Global actors

In this unit, students investigate the aims, roles and power of key global actors, including states, intergovernmental organisations, non-state actors and transnational corporations. They develop an understanding of the key actors through an in-depth examination of the concepts of national interests and power as they relate to the state, and the ways in which one Asia-Pacific state uses power to achieve its objectives.

Areas of study:

1. Global actors
2. Power in the Asia-Pacific region

Unit 4: Global challenges

In this unit, students investigate key global challenges facing the international community in the 21st century. They examine and analyse the debates surrounding two ethical issues that are underpinned by international law. They then evaluate the effectiveness of responses to these issues. Students also explore the context and causes of global crises and consider the varying effectiveness of responses and challenges to resolving them.
Areas of study:

1. Ethical issues and debates
2. Global crises

Assessment:

Assessment comprises a combination of short answer, extended response and essay tests, in addition to the end of year examination.
Unit 3: School Assessed Coursework: 25%
Unit 4: School Assessed Coursework: 25%
Final Examination: 50%

Prerequisites:

It is strongly recommended that students undertaking Units 3 & 4 Global Politics have successfully completed Units 1 & 2 Australian and Global Politics.

Additional Information:

This course of study enables students to:

- understand and apply fundamental political concepts
- understand the nature of contemporary politics and power in national and global contexts
- critically examine the characteristics and features of Australian democracy
- analyse factors that shape the formulation and implementation of domestic and foreign policy
- analyse global issues and challenges, and the key actors that influence these
- evaluate the effectiveness of international responses to global crises
- develop skills of logical and rational analysis, synthesis and argument.

The subject will appeal to students who:

- have an interest in current affairs and international relations and/or want to learn more about global issues
- may pursue a career in international development, diplomacy, international law, journalism, education, research or politics
- have a solid academic record, particularly in English, Global Issues and History.

Due to the changing nature of politics, reliable home internet access will be necessary in order to conduct research and to keep well-informed.

YEAR 12 HUMANITIES

History: Revolutions – Units 3 & 4

Course Description:

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. In Units 3 and 4 Revolutions, students investigate the significant historical causes and consequences of political revolution.

Unit 3 Details: American Revolution

1. *Causes of Revolution:*
   The period for this area of study is:
   The American Revolution from 1754 to 4 July 1776 (French and Indian War to the Declaration of Independence 1776)
2. *Consequences of Revolution:*
   The period for this area of study is:
   The American Revolution from 4th July 1776 to 1789 (Declaration of Independence to the acceptance of the Bill of Rights)

Unit 4 Details: Russian Revolution

1. *Causes of Revolution:*
   The period for this area of study is:
   The Russian Revolution from 1896 to October 1917 (Coronation of Tsar Nicholas to the 25th October Revolution 1917)
2 *Consequences of Revolution*
   The period for this area of study is:
   The Russian Revolution from October 1917 to 1927 (Early Sovnarkom decrees to the end of the NEP)

Assessment:

Unit 3 Coursework contributes 25%
Unit 4 Coursework contributes 25%

The following assessment tasks must be completed over Units 3 and 4

- a historical inquiry
- an analysis of primary sources
- an evaluation of historical interpretations
- an essay

End of year examination contributes 50%

Prerequisites:

In order to be best prepared for the coursework and skills, it is recommended that students have completed Units 1 and 2 History in Year 11.

YEAR 12 HUMANITIES

Legal Studies – Units 3 & 4

Course Description:

VCE Legal Studies examines the institutions and principles which are essential to Australia's legal system. It equips students with the ability to research and analyse legal information and apply legal reasoning and decision-making skills, and fosters critical thinking to solve legal problems.

Unit 3 Details: Rights and Justice

In this unit, students examine the methods and institutions in the justice system and consider their appropriateness in determining criminal cases and resolving civil disputes. Students explore matters such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system and discuss recent and recommended reforms to help achieve these.

Areas of Study:

1. *The Victorian Criminal Justice System (50%)* - Students explore the rights of the accused and of victims in the criminal justice system, discuss the means used to determine criminal cases and evaluate the ability of the criminal justice system to achieve the principles of justice.
2. *The Victorian Civil Justice System (50%)* – Students analyse the factors to consider when initiating a civil claim, discuss the institutions and methods used to resolve civil disputes and evaluate the ability of the civil justice system to achieve the principles of justice.

Unit 4 Details: The People and the Law

In this unit, students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and 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.

Areas of Study:

1. *The People and the Australian Constitution (40%)* – Students discuss the significance of High Court cases involving the interpretation of the Australian Constitution and evaluate the ways in which the Australian Constitution acts as a check on parliament in law-making.
2. *The People, the Parliament and the Courts (60%)* – Students discuss the factors that affect the ability of parliament and courts to make law, evaluate the ability of these law-makers to respond to the need for law reform, and analyse how individuals, the media and law reform bodies can influence a change in the law.

Assessment:

Unit 3 School-assessed Coursework; 25%
Unit 4 School-assessed Coursework: 25%
Written end-of-year examination: 50%

Prerequisites:

There are no prerequisites for Legal Studies but it is highly recommended that students have undertaken Units 1 & 2 Legal Studies or Year 10 Legal Studies.

YEAR 12 LANGUAGES

German – Units 3 & 4

Course Description:

This course has been designed for students who have previously studied 3 - 4 years of German. The study of Language contributes to the overall education of students, most particularly in the area of communication, but also in the areas of cross-cultural understanding, cognitive development, literacy and general knowledge. It provides access to the culture of communities that use the language and promotes understanding of different attitudes and values within the wider Australian community and beyond. The ability to communicate in German may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as trade, environmental studies, tourism, banking, technology and education. The study is designed to enable students to: speak German to communicate with others; understand and appreciate the cultural contexts in which German is used; understand their own culture(s) through the study of other cultures; understand language as a system; make connections between German and English, and/or other languages; apply German to work, further study, training or leisure.

Unit 3 Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for German.
Areas of Study:

- The Individual - personal identity, school and aspirations, leisure and lifestyles
- German-Speaking Communities - people and places, past and present, arts and entertainment
- The Changing World - the world of work, youth issues, tourism.

Unit 4 Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for German. It includes a detailed study based on one of the recommended sub-topics within the Study Design.
Areas of Study:

- The Individual - personal identity, school and aspirations, leisure and lifestyles
- German-Speaking Communities - people and places, past and present, arts and entertainment
- The Changing World - the world of work, youth issues, tourism.

Assessment:

- School-assessed Coursework for Unit 3 (3 outcomes covering listening, writing and speaking skills)
- School-assessed Coursework for Unit 4 (3 outcomes covering reading, writing and speaking skills)
- Mid-year 7 minute Oral Examination
- Mid-year Written Examination
- End-of-year 15 minute Oral Examination
- End-of-year two hour Written Examination

Prerequisites:

In order to study Units 3 and 4, students should have successfully completed Units 1 and 2 or equivalent level of accomplishment to have a reasonable chance of success in these Units.

Additional Information:

Students will also be strongly encouraged to attend extracurricular activities such as the VCE Forum to prepare for their final Languages Exam.

YEAR 12 LANGUAGES

Japanese (Second Language) – Units 3 & 4

Course Description:

This course has been designed for students who have previously studied 3 - 4 years of Japanese. The study of Language contributes to the overall education of students, most particularly in the area of communication, but also in the areas of cross-cultural understanding, cognitive development, literacy and general knowledge. It provides access to the culture of communities that use the language and promotes understanding of different attitudes and values within the wider Australian community and beyond. The ability to communicate in Japanese may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as trade, environmental studies, tourism, banking, technology and education. The study is designed to enable students to: use Japanese to communicate with others; understand and appreciate the cultural contexts in which Japanese is used; understand their own culture(s) through the study of other cultures; understand language as a system; make connections between Japanese and English, and/or other languages; apply Japanese to work, further study, training or leisure.

Unit 3 Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for Japanese.
Areas of Study:
• The individual - personal identity, daily life, school, leisure and lifestyles
• Japanese speaking communities - visiting Japan, life in Japan, getting know people in Japan.
• The changing world - the world of work, environmental issues, tourism.

Unit 4 Details:

This unit will investigate prescribed themes and topics, text types, kinds of writing, vocabulary and grammar as detailed in the VCE Study Design for Japanese. It includes a detailed study based on one of the recommended sub- topics within the Study Design.
Areas of Study:
• The individual - personal world, daily life, past and future.
• Japanese speaking communities - visiting Japan, life in Japan, getting know people in Japan.
• The changing world - the world of work, changes in daily life, lifestyle, home and neighbourhood.

Assessment:

School-assessed Coursework for Unit 3 (Students are required to demonstrate achievement of three outcomes)
• be able to express ideas through the production of original texts
• be able to analyse and use information from spoken texts
• be able to exchange information, opinions and experiences
School-assessed Coursework for Unit 4 (Students are required to demonstrate achievement of two outcomes)
• be able to analyse and use information from written texts
• be able to respond critically to spoken and written texts which reflect aspects of the language and culture of Japanese speaking communities
Mid-year 7 minute Oral Examination
Mid-year Written Examination
End-of-year 15 minute Oral Examination
End-of-year two hour Written Examination.

Prerequisites:

In order to study Units 3 and 4, students should have successfully completed Units 1 and 2 or equivalent level of accomplishment to have a reasonable chance of success in these Units.

Additional Information:

Students are expected to use a bilingual dictionary effectively in examination or non-examination situations.

YEAR 12 MATHEMATICS

Further Mathematics – Units 3 & 4

Course Description:

Further Mathematics is intended to provide for students with diverse needs and aspirations and is intended to be widely accessible. It is intended to provide general preparation for employment and further study in a variety of different fields.

Unit 3 Details

In this unit students will undertake the study of 'Data analysis' including investigating data distributions, associations between two variables as well as investigating and modelling linear associations and time series data. They will also cover the topic of 'Recursion and financial modelling' which will see them investigate the use of first-order linear recurrence relations and technology to model and analyse a range of financial situations, and solve related problems involving interest, appreciation and depreciation, loans, annuities and perpetuities.

Areas of Study:

- Data analysis
- Recursion and financial modelling

Unit 4 Details

In this unit students will undertake the study of the 'Matrices' module which will cover the definition of matrices, different types of matrices, matrix operations, transition matrices and the use of first-order linear matrix recurrence relations to model a range of situations and solve related problems. Students will also cover the 'Networks and decision mathematics' module which will cover the definition and representation of different kinds of undirected and directed graphs, Eulerian trails and circuits, bridges, Hamiltonian paths and cycles, and the use of networks

Areas of Study:

- Arithmetic and number
- Geometry, measurement and trigonometry
- Discrete mathematics

Assessment:

- Unit 3 School-assessed Coursework (an Application Task and a Modelling/Problem-solving task): 20%
- Unit 4 School-assessed Coursework (two Modelling/Problem-solving tasks): 14%
- End-of-year Examination 1 – a 1.5 hour exam of multiple choice questions: 33%
- End-of-year Examination 2 – a 1.5 hour exam of extended response questions: 33%

Prerequisites:

Satisfactory completion of VCE General Mathematics Units 1 and 2, including a minimum of 50% in both the Units 1 and 2 Examinations.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

Please refer to page 155 for further information on Mathematics pathways.

YEAR 12 MATHEMATCIS

Mathematical Methods – Units 3 & 4

This subject requires higher-order maths skills and necessitates intense focus on homework completion and continuous practice.

Course Description

Mathematical Methods Units 3 and 4 extends the introductory study of simple elementary functions of a single real variable studied in Mathematical Methods Units 1 and 2 to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. The appropriate use of technology, including but not limited to computer algebra system (CAS) technology, will be incorporated throughout these units to assist in the development of mathematical ideas and concepts. Mathematical Methods is intended to provide students with an appropriate foundation for further study in, but not limited to, areas such as Science, Engineering, Economics or Medicine.

It is also a prerequisite (may be studied concurrently) for any student considering undertaking Specialist Mathematics Units 3 and 4.

Unit 3 Details

In this unit students cover transformations of the plane and key features of elementary functions and their graphs. The behavior of these functions and their graphs will also be linked to applications in practical situations. Students will cover the algebra of functions and study the identification of appropriate solution processes for solving equations, and systems of simultaneous equations, presented in various forms. Graphical and numerical approaches for problems involving equations where exact value solutions are not required or which are not solvable by other methods will be investigated. Students will be introduced to the graphical treatment of limits, continuity and differentiability of functions and differentiation of these functions whilst linking these processes to application in practical situations.

Areas of Study:

- Functions and Graphs
- Algebra
- Calculus

Unit 4 Details

In this unit students will continue with the study of calculus, in particular with the anti-differentiation and integration of functions of a single real variable and be introduced to their application of practical situations. They will cover discrete and continuous random variables, their representation using tables, probability functions; the calculation and interpretation of central measures and measures of spread; and statistical inference for sample proportions. The focus is on understanding the notion of a random variable, related parameters, properties and application and interpretation in context for a give probability distribution.

Areas of Study:

- Functions and Graphs
- Algebra
- Calculus
- Probability and Statistics

Assessment:

- Unit 3 School-assessed Coursework (one Application Task): 17%
- Unit 4 School-assessed Coursework (two Modelling/Problem-solving tasks): 17%
- End-of-year Examination 1 – a one hour technology-free and notes-free exam: 22%
- End-of-year Examination 2 – a two hour technology-enabled with summary notes exam: 44%

Prerequisites:

To ensure a reasonable chance of success in these units, students should have a solid record of achievement in Mathematical Methods Units 1 and 2 with an average of 60% in both the tests and Units 1 and 2 Examinations.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

Please refer to page 159 for further information on Mathematics pathways.

YEAR 12 MATHEMATICS

Specialist Mathematics – Units 3 & 4

This subject requires higher-order maths skills and necessitates intense focus on homework completion and continuous practice.

Course Description

Enrolment in Specialist Mathematics Units 3 and 4 assumes a concurrent enrolment in, or previous completion, of Mathematical Methods Units 3 and 4. A large proportion of the material studied in Mathematical Methods 3 and 4 will be assumed knowledge for Specialist Mathematics Units 3 and 4. This course is intended to provide an appropriate foundation for students wishing to undertake further study in, but not limited to, areas such as Science and Engineering.

Unit 3 Details

In this unit students will cover inverse circular functions, reciprocal functions, rational functions and other simple quotient functions, the absolute value function, graphical representations of these functions, and the analysis of key features of their graphs. They will investigate the expression of simple rational functions as a sum of partial fractions; the arithmetic and algebra of complex numbers, including polar form; points and curves in the complex plane; introduction to factorisation of polynomial functions over the complex field; and an informal treatment of the fundamental theorem of algebra. They will cover advanced calculus techniques for analytic and numeric differentiation of a range of functions and their application in a variety of theoretical and practical situations including curve sketching and differential equations. Students will cover the arithmetic and algebra of vectors, linear dependence and independence of a set of vectors and proof of geometric results using vectors.

Areas of Study:

- Functions and Graphs
- Algebra
- Calculus
- Vectors

Unit 4 Details

In this unit students will cover advanced calculus techniques for analytic and numeric integration of a range of functions and their application in a variety of theoretical and practical situations including area and volume and kinematics. They will investigate vector representation of curves in the plane and vector kinematics in one and two dimensions. Newtonian mechanics will be introduced, for both constant and variable acceleration, and will include the study of equations of motion. They will cover statistical inference related to the definition and distribution of sample means, simulations and confidence intervals for means and will include the investigation of hypothesis testing for a population mean.

Areas of Study:

- Algebra
- Calculus
- Vectors
- Mechanics
- Probability and Statistics

Assessment:

- Unit 3 School-assessed Coursework (one Application Task): 17%
- Unit 4 School-assessed Coursework (two Modelling/Problem-solving tasks): 17%
- End-of-year Examination 1 – a one hour technology-free and notes-free exam: 22%
- End-of-year Examination 2 – a two hour technology-enabled with summary notes exam: 44%

Prerequisites:

To ensure a reasonable chance of success in these units, students should have a solid record of achievement in Mathematical Methods Units 1 and 2 including a minimum of 60% in both the Units 1 & 2 Examinations.
Satisfactory completion of Specialist Mathematics Units 1 and 2 is highly recommended for this course.

Additional Information:

Students must have a Ti-Nspire CAS calculator as prescribed on the booklist.

**Please refer to page 155 for further information on Mathematics pathways.*

YEAR 12 SCIENCE

Biology – Units 3 & 4

Course Description:

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system, species and ecosystem levels. In undertaking this study, students examine how life has evolved over time and understand that in the dynamic and interconnected system of life all change has a consequence that may affect an individual, a species or the collective biodiversity of Earth. The study gives students insights into how knowledge of molecular and evolutionary concepts underpin much of contemporary biology, and the applications used by society to resolve problems and make advancements.

In VCE Biology, students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary biology-related issues, and communicate their views from an informed position.

VCE Biology provides for continuing study pathways within the discipline and leads to a range of careers. Branches of biology include botany, genetics, immunology, microbiology, pharmacology and zoology. In addition, biology is applied in many fields of endeavour including biotechnology, dentistry, ecology, education, food science, forestry, health care, horticulture, medicine, optometry, physiotherapy and veterinary science. Biologists also work in cross-disciplinary areas such as bushfire research, environmental management and conservation, forensic science, geology, medical research and sports science.

Unit 3 Details:

How do cells maintain life?

The cell is a dynamic system of interacting molecules that define life. An understanding of the workings of the cell enables an appreciation of both the capabilities and the limitations of living organisms whether animal, plant, fungus or microorganism. The convergence of cytology, genetics and biochemistry makes cell biology one of the most rapidly evolving disciplines in contemporary biology.

In this unit, students investigate the workings of the cell from several perspectives. 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.

Areas of Study:

- How do cellular processes work?
- How do cells communicate?

Unit 4 Details:

How does life respond to change and challenges over time?

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.

Areas of Study:

- How are species related?
- How do humans impact biological processes?

Assessment:

School-assessed Coursework for Unit 3

- A report related to at least two practical activities from a practical logbook
- A data analysis task

School-assessed Coursework for Unit 4

- A report using primary or secondary data
- A report of a laboratory investigation
- A structured scientific poster
- End of year 2.5 hour exam (plus 15 minutes reading time).

Prerequisites:

There are no prerequisites for entry into Units 3 and 4 Biology.

Additional Information:

Nature of Biology 2 (Jacaranda) textbook

Checkpoints VCE Biology Units 3 & 4 (Cambridge)

YEAR 12 SCIENCE

Chemistry – Units 3 & 4

Course Description:

VCE Chemistry enables students to examine a range of chemical, biochemical and geophysical phenomena through the exploration of the nature of chemicals and chemical processes. In undertaking this study, students apply chemical principles to explain and quantify the behaviour of matter, as well as undertake practical activities that involve the analysis and synthesis of a variety of materials.

In VCE Chemistry, students develop a range of inquiry skills involving practical experimentation and research specific to the knowledge of the discipline, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary chemistry-related issues, and communicate their views from an informed position.

VCE Chemistry provides for continuing study pathways within the discipline and leads to a range of careers. Branches of chemistry include organic chemistry, inorganic chemistry, analytical chemistry, physical chemistry and biochemistry. In addition, chemistry is applied in many fields of endeavour including agriculture, bushfire research, dentistry, dietetics, education, engineering, environmental sciences, forensic science, forestry, horticulture, medicine, metallurgy, meteorology, pharmacy, sports science, toxicology, veterinary science and viticulture

Unit 3 Details:

How can chemical processes be designed to optimise efficiency?

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.

Areas of Study:

- What are the options for energy production?
- How can the yield of a chemical product be optimised?

Unit 4 Details:

How are organic compounds categorised, analysed and used?

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.

Areas of Study:

- How can the diversity of organic compounds be explained and categorised?
- What is the chemistry of food?

Assessment:

School-assessed Coursework for Unit 3

- A written report of a practical investigation
- An evaluation of research
- School-assessed Coursework for Unit 4
- A summary report of 2 practical activities
- A response to stimulus material
- A structured scientific poster
- End of year 2.5 hour exam (plus 15 minutes reading time).

Prerequisites:

Successful completion of Units 1 and 2 Chemistry.

Additional Information:

Heinemann Chemistry 2 textbook
Checkpoints VCE Chemistry Units 3 & 4 (Cambridge)
Scientific calculator (not a CAS calculator).

YEAR 12 SCIENCE

Physics – Units 3 & 4

Course Description:

Physics is a natural science based on observations, experiments, measurements and mathematical analysis with the purpose of finding quantitative explanations for phenomena occurring from the subatomic scale through to the planets, stellar systems and galaxies in the Universe. While much scientific understanding in physics has stood the test of time, many other areas continue to evolve. In undertaking this study, students develop their understanding of the roles of careful and systematic experimentation and modelling in the development of theories and laws. They undertake practical activities and apply physics principles to explain and quantify both natural and constructed phenomena.

In VCE Physics, students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary physics-related issues and to communicate their views from an informed position.

VCE Physics provides for continuing study pathways within the discipline and leads to a range of careers. Physicists may undertake research and development in specialist areas including acoustics, astrophysics and cosmology, atmospheric physics, computational physics, education, energy research, engineering, instrumentation, lasers and photonics, medical physics, nuclear science, optics, pyrotechnics and radiography. Physicists also work in cross-disciplinary areas such as bushfire research, climate science, forensic science, geology, materials science, neuroscience and sports science.

Unit 3 Details:

How do fields explain motion and electricity?

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.

Areas of Study:

- How do things move without contact?
- How are fields used to move electrical energy?

Unit 4 Details:

How can two contradictory models explain both light and matter?

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.

Areas of Study:

- How can waves explain the behaviour of light?
- How are light and matter similar?

Assessment:

School-assessed Coursework for Unit 3

- A written report of practical investigations
- Analysis and evaluation of stimulus material
- A report of a physics phenomenon
- School-assessed Coursework for Unit 4
- A summary report of 2 practical activities
- A response to stimulus material
- A structured scientific poster
- End of year 2.5 hour exam (plus 15 minutes reading time).

Prerequisites:

Successful completion of Units 1 and 2 Physics.

Additional Information:

Heinemann Physics 2 textbook
Checkpoints VCE Physics Units 3 & 4 (Cambridge)
Scientific calculator (not a CAS calculator).

YEAR 12 SCIENCE

Psychology – Units 3 & 4

Course Description:

This course covers topics in learning, memory, consciousness, sleep and mental wellbeing and is intended to provide an appropriate foundation for students wishing to undertake further study in, but not limited to, Behavioural Sciences.

Unit 3 Details:

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.

Areas of Study:

- How does the nervous system enable psychological functioning?
- How do people learn and remember?

Unit 4 Details:

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.

Areas of Study:

- How do levels of consciousness affect mental processes and behaviour?
- What influences mental wellbeing?
- Practical investigation.

Assessment:

- School-assessed coursework for Unit 3 (Two School Assessed Tasks): 16%
- School-assessed coursework for Unit 4 (Two School Assessed Tasks and a Practical Investigation): 24%
- End of year examination: 60%

Prerequisites:

To have a reasonable chance of success in these units, students should have a solid record of achievement in Psychology Units 1 & 2.

YEAR 12 TECHNOLOGY

Computing - Units 3 & 4

*New Study Design for 2020

Course Description:

Units 3 and 4 Computing is offered as two streams; Data Analytics and Software Development. Students should select one stream only, with the expectation that they may be enrolled in the other stream based upon overall student enrolment numbers. Software Development should be considered for those students who want to further develop their computational thinking and programming capability.

Unit 3 Details (Software Development stream):

Software Development: Programming

In this unit, students apply the problem-solving methodology to develop working software modules using a programming language. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

In Area of Study 1, students respond to teacher-provided solution requirements and designs and develop a set of working modules through the use of a programming language. Students examine a simple software requirements specification and a range of software design tools in order to apply specific processing features of a programming language to create working modules. In Area of Study 2 students analyse a need or opportunity, select an appropriate development model, prepare a project plan, develop a software requirements specification and design a software solution. Area of Study 2 forms the first part of the School-assessed Task (SAT) that is completed in Unit 4, Area of Study 1.

Areas of Study:

1 Programming: Javascript, PHP, SQL, HTML5 / CSS3, Node.JS
2 Software development: analysis and design, project management software, software modelling tools.

Outcomes

1. (SAC) On completion of this unit, the student should be able to interpret teacher-provided solution requirements and designs, and apply a range of functions and techniques using a programming language to develop and test working software modules.
2. (SAT) On completion of this unit, the student should be able to analyse and document a need or opportunity, justify the use of an appropriate development model, formulate a project plan, generate alternative design ideas and represent the preferred solution design for creating a software solution.

Unit 4 Details (Software Development stream):

Software Development: Development and Evaluation

In this unit, students focus on how the information needs of individuals and organisations are met through the creation of software solutions. They consider the risks to software and data during the software development process, as well as throughout the use of the software solution by an organisation.

In Area of Study 1, students apply the problem-solving stages of development and evaluation to develop their preferred design prepared in Unit 3, Area of Study 2, into a software solution and evaluate the solution, chosen development model and project plan. Area of Study 1 forms the second part of the School-assessed Task (SAT).

In Area of Study 2, students examine the security practices of an organization and the risks to software and data during the development and use of the software solutions. Students evaluate the current security practices and develop a risk management plan.

Areas of Study:

1. Development and evaluation: programming techniques, computational thinking, searching / sorting algorithms.
2. Cybersecurity: software security, data and information security, network threats, vulnerabilities and protections.

Outcomes

1. (SAT) On completion of this unit, the student should be able to develop and evaluate a software solution that meets requirements, evaluate the effectiveness of the development model and assess the effectiveness of the project plan.
2. (SAC) On completion of this unit, the student should be able to respond to a teacher-provided case study to examine the current software development security strategies of an organization, identify the risks and the consequences of ineffective strategies and recommend a risk management plan to improve current security practices.

Assessment:

Unit 3 School Assessed Coursework: 10%
Unit 4 School Assessed Coursework: 10%
Unit 3 & Unit 4 School Assessed Task: 30% (Folio)
External Exam: 50%

Prerequisites:

There are no prerequisites for entry into Software Development Units 3 & 4. However, it is assumed that students have sound design thinking and computational thinking skills.

(Alternative Stream)

Unit 3 Details (Data Analytics stream):

Data Analytics: Analysis and Design

In this unit, students apply the problem-solving methodology to identify and extract data through the use of software tools such as database, spreadsheet and data visualisation software to create data visualisations or infographics. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

In Area of Study 1, students respond to teacher-provided solution requirements and designs. Students develop data visualisations and use appropriate software tools to present findings. Appropriate software tools include database, spreadsheet and data visualisation software.

In Area of Study 2, students propose a research question, prepare a project plan, collect and analyse data, and design infographics or dynamic data visualisations. Area of Study 2 forms the first part of the School-assessed Task (SAT) that is completed in Unit 4, Area of Study 1.

Areas of Study:

1. Data collection and data management: databases, spreadsheet software, visualization software.
2. Data analytics: data management and data manipulation software, programming and project planning software.

Outcomes

1. (SAC) On completion of this unit, the student should be able to respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply a range of functions to develop software solutions to present findings.
2. (SAT) On completion of this unit, the student should be able to propose a research question, formulate a project plan, collect and analyse data, generate alternative design ideas and represent the preferred design for creating infographics or dynamic data visualisations.

Unit 4 Details (Data Analytics stream):

Data Analytics: Development and Evaluation

In this unit, students focus on determining the findings of a research question by developing infographics or dynamic data visualisations based on large complex data sets and on the security strategies used by an organisation to protect data and information from threats.

In Area of Study 1, students apply the problem-solving stages of development and evaluation to develop their preferred design prepared in Unit 3, Area of Study 2, into infographics or dynamic data visualisations, and evaluate the solutions and project plan. Area of Study 1 forms the second part of the School-assessed Task (SAT).

In Area of Study 2, students investigate security practices of an organisation. They examine the threats to data and information, evaluate security strategies and recommend improved strategies for protecting data and information.

Areas of Study:

1. Development and evaluation: databases, spreadsheet, visualization, programming and project planning software.
2. Cybersecurity: data and information security.

Outcomes

1. (SAT) On completion of this unit, the student should be able to develop and evaluate infographics or dynamic data visualisations that present findings in response to a research question, and assess the effectiveness of the project plan in monitoring progress.
2. (SAC) On completion of this unit, the student should be able to respond to a teacher-provided case study to investigate the current data and information security strategies of an organisation, examine the threats to the security of data and information, and recommend strategies to improve current practices.

Assessment:

Unit 3 School Assessed Coursework: 10%
Unit 4 School Assessed Coursework: 10%
Unit 3 & Unit 4 School Assessed Task: 30% (Folio)
External Exam: 50%

Prerequisites:

There are no prerequisites for entry into Data Analytics Units 3 & 4. However, it is assumed that students have sound design thinking and computational thinking skills.

YEAR 12 TECHNOLOGY

Food Studies - Units 3 & 4

Course Description:

VCE Food Studies takes an interdisciplinary approach to the exploration of food, with an emphasis on extending food knowledge and skills and building individual pathways to health and wellbeing through the application of practical food skills. VCE Food Studies provides a framework for informed and confident food selection and food preparation within today's complex architecture of influences and choices. Students explore food from a wide range of perspectives. They study past and present patterns of eating, Australian and global food production systems and the many physical and social functions and roles of food. They research economic, environmental and ethical dimensions of food and critically evaluate information, marketing messages and new trends.

Practical work is integral to Food Studies and includes cooking, demonstrations, responding to design briefs, dietary analysis, food sampling and taste-testing, sensory analysis, product analysis and scientific experiments.

Note: students need to be aware that Food Studies at the Unit 3 and 4 level is NOT a folio subject. There is no School Assessed Task (SAT) as has been the case in previous years, however students will need to demonstrate practical activities completed in class and provide records of these related to the relevant area of study.

Unit 3 Details:

This unit focuses on the science of food and how it nourishes and sometimes harms our bodies. We investigate the physiology of eating food, including digestion and changes that occur during food preparation. We also analyse Australian Government food selection resources and develop an understanding of nutrient requirements. We also focus on how people change their eating patterns over time and how our food values and behaviours develop within social environments. Students also inquire into the role of food in shaping and expressing identity and connectedness and the ways in which food information can be manipulated. We investigate behaviours that assist in the establishment of healthy dietary patterns. The practical component enables students to understand food science terminology and to apply specific techniques to the production of everyday food that encourages sustainable meal patterns.

Unit 4 Details:

This unit focuses on issues including 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 of water and land. Students research a selected topic and analyse work undertaken to solve problems that support sustainable futures. There is also a focus on food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. We study contemporary food fads, trends and diets, and improve food selection skills by interpreting food labels and analyse the marketing terms used on food packaging. The practical component provides students with opportunities to apply their responses to environmental and ethical food issues, and to extend their production of food items.

Assessment:

Comprises of a combination of the following:

- a range of practical activities and records of related practical activities
- written reports
- media analysis
- research inquiry
- structured questions
- case study analyses
- annotated visual reports
- oral presentations or practical demonstrations

Percentage contributions to the study score in VCE Food and Technology are as follows:

- Unit 3 School-assessed Coursework: 30 per cent
- Unit 4 School-assessed Coursework: 30 per cent
- End-of-year examination: 40 per cent.

Prerequisites:

There are no prerequisites for entry into Units 3 & 4 Food Studies.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 TECHNOLOGY

PD & T – Resistant Materials Units 3 & 4

Course Description:

Product design is a response to changing needs and to improve quality of life by designing creative, innovative and sustainable products. Product design is enhanced through knowledge of social, technological, economic, historical, ethical, legal, environmental and cultural factors. These factors influence the aesthetics, form and function of products. Central to VCE Product Design and Technology is design thinking, which is applied through the product design process providing a structure for creative problem solving. The design process involves identification of a real need, problem or opportunity that is then articulated in a design brief. The need, problem or opportunity is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional products. Development of these solutions requires the application of technology and a variety of cognitive and physical skills, including design thinking, drawing and computer-aided design, testing processes and materials, planning, construction, fabrication and evaluation. For VCE Product Design and Technology, students assume the role of a designer-maker. In adopting this role, they develop and apply knowledge of factors that influence design and address the design factors relevant to their design situation. The knowledge and use of resources is integral to product design. These resources include a range of materials, and the tools, equipment and machines needed to safely transform these materials into products. Increasingly, the importance of sustainability is affecting product design and development, and so is at the forefront throughout the product life cycle.

Unit 3 Details:

Applying the Product design process. This unit will investigate the following areas of study:

- Designing for end-user/s.
- Product development in industry.
- Designing for others.

Unit 4 Details:

Product development and evaluation. This unit will investigate the following areas of study:

- Product analysis and comparison.
- Product manufacture.
- Product evaluation.

Assessment:

The Victorian Curriculum and Assessment Authority (VCAA) will supervise the assessment of all students undertaking Units 3 and 4.

- School-assessed Coursework for Unit 3 - Written outcomes (2)
- School-assessed Task for unit 3 – (1) Design folio
- School-assessed Coursework for Unit 4 – Written outcomes (1)
- School-assessed Task for Unit 4 – (2) Production task and Evaluation
- End-of-year exam.

Prerequisites:

To have a reasonable chance of success in these units, students should have a solid record of achievement in Product Design and Technology in Units 1 & 2.

Subject to a materials charge. Please refer to the 2020 Materials Charges document for more information.

YEAR 12 TECHNOLOGY
PD & T – Textiles Units 3 & 4

Course Description:
Product design is a response to changing needs and to improve quality of life by designing creative, innovative and sustainable products. Product design is enhanced through knowledge of social, technological, economic, historical, ethical, legal, environmental and cultural factors. These factors influence the aesthetics, form and function of products.
Central to VCE Product Design and Technology Textiles is design thinking, which is applied through the product design process providing a structure for creative problem solving. The design process involves identification of a real need, problem or opportunity that is then articulated in a design brief. The need, problem or opportunity is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional products. Development of these solutions requires the application of technology and a variety of cognitive and physical skills, including design thinking, drawing and computer-aided design, testing processes and materials, planning, construction, fabrication and evaluation.
For VCE Product Design and Technology Textiles, students assume the role of a designer-maker. In adopting this role, they develop and apply knowledge of factors that influence design and address the design factors relevant to their design situation.
The knowledge and use of resources is integral to product design. These resources include a range of materials, and the tools, equipment and machines needed to safely transform these materials into products. Increasingly, the importance of sustainability is affecting product design and development, and so is at the forefront throughout the product life cycle.

Unit 3 Details:
Applying the Product design process.
This unit will investigate the following areas of study:

- Designing for end-user/s
- Product development in the textiles industry
- Designing for others

Unit 4 Details:
Product development and evaluation
This unit will investigate the following areas of study:

- Textiles product analysis and comparison
- Product manufacture
- Product evaluation

Assessment:
The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4.

- School-assessed Coursework for Unit 3 - written Outcomes (2)
- School-assessed Task for unit 3 – (1) Design folio
- School-assessed Coursework for Unit 4 – Written outcomes (1)
- School-assessed Task for Unit 4 – (2) Production task and Evaluation
- End-of-year exam

Prerequisites:
To have a reasonable chance of success in these units, students should have a solid record of achievement in Product Design and Technology Textiles in Units 1 & 2.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

YEAR 12 TECHNOLOGY

Systems Engineering - Units 3 & 4

(Bonus subject status for *Engineering* by most Universities)

Course description:

VCE Systems Engineering promotes innovative systems thinking and problem-solving skills through the application of the systems engineering process. The study is based on integrated mechanical and electrotechnological engineered systems. The study provides opportunities for students to learn about and engage with systems from a practical and purposeful perspective. Students gain knowledge and understanding about technological systems and their applications. VCE Systems Engineering integrates aspects of designing, planning, producing, testing and evaluating in a project management process. It prepares students for careers in engineering, manufacturing and design through a university or TAFE vocational study pathway, employment, apprenticeships and traineeships. The study provides a rigorous academic foundation and a practical working knowledge of design strategies, production processes and evaluation practices. People with these skills, and the ability to apply systems engineering processes, are in increasing demand as participants in teams that are engaged with complex and multidisciplinary projects.

Unit 3: Integrated and Controlled Systems

Outcome One:

On completion of this unit the student should be able to investigate, analyse and apply concepts and principles, and use components to design, plan and commence production of an integrated and controlled mechanical and electrotechnological system using the systems engineering process.

Key Skills include the ability to:

- Apply Ohm's Law to calculate voltage, current and resistance
- Calculate power using voltage and current
- Describe the operation of mechanical and electrotechnological systems using appropriate engineering terminology
- Identify and represent mechanical and electrotechnological systems in diagrammatic and symbolic forms
- Select appropriate mechanical and electrotechnological subsystems, materials and components and produce operational systems and subsystems
- Measure and diagnose mechanical and electrotechnological system parameters using appropriate measuring and testing equipment
- Construct and interpret circuit diagrams, schematics, PCB artwork, breadboard and Veroboard representations of electrical circuits, and transform one representation into another
- Apply formulas to calculate mechanical and electrical parameters, work done, mechanical advantage, pressure, efficiency, Ohm's Law and power calculations on DC, or purely resistive AC circuits
- Use digital technologies to simulate and demonstrate mechanical and electrotechnological principles
- Interpret the resistor values in four and five colour band resistors with reference to a colour code chart and interpret component data sheets
- Explain factors that influence the creation and use of the integrated system
- Apply the systems engineering process to:
    - Identify and document the problem, need, opportunity or situation
    - Research, design, plan and commence production of the operational integrated and controlled system.

Outcome Two:

On completion of this unit, the student should be able to discuss the advantages and disadvantages of renewable and non-renewable energy sources, and analyse and evaluate the technology used to harness, generate and store non-renewable and renewable energy.

Key Skills include the ability to:

- Describe forms of non-renewable and renewable energy sources
- Discuss advantages and disadvantages of non-renewable energy sources and renewable energy sources, including cradle-to-cradle analysis
- Explain recent technological developments to improve environmental credentials of non-renewable resources
- Evaluate the technologies and processes used to harness, generate and store renewable energy sources
- Describe factors that determine the efficiency of energy conversion
- Evaluate solar and wind power technologies and compare these methods of harnessing energy with non-renewable energy methods.

Unit 4: Systems Control

Outcome One:

On completion of this unit, the student should be able to finalise production, test and diagnose a mechanical and electrotechnological integrated and controlled system using the systems engineering process, and manage, document and evaluate the system and the process, as well as their use of it.

Key Skills include the ability to:

- apply the systems engineering process to produce, test, diagnose, evaluate and report on the system by:
    - implementing the work plan using a range of production processes
    - implementing and documenting risk assessment and management processes
    - selecting and using materials, tools, equipment and machines compliant with OH&S obligations
    - interpreting circuit diagrams, schematics, PCB artwork, breadboard and Veroboard representations of electrical circuits, and transforming one representation into another
    - managing production of the system, using ongoing reflection and evaluation, and documenting decision making, relevant data, changes and modifications
    - testing, measuring, diagnosing, repairing or modifying and recording appropriate system parameters to monitor quality and optimise system and subsystem performance
    - interpreting measurements and using previously established criteria
    - suggesting modifications and improvements
- identify how the factors that influenced the creation of the system and its use have been taken into account
- evaluate the use of the systems engineering process.

Outcome Two:

On completion of this unit the student should be able to evaluate a range of new or emerging systems engineering technologies and analyse the likely impacts of a selected technology.

Key Skills include the ability to:

- Research and evaluate the operations and applications of new and emerging developments in systems engineering processes and products
- Explain reasons for and drivers of the development of new and emerging technologies
- Analyse impacts and the potential of the new and emerging developments
- Present and analyse information about a specific new or emerging systems engineering innovation.

Assessments:

- Units 3 and 4 School-assessed Coursework: 20 per cent
- Units 3 and 4 School-assessed Task: 50 per cent
- End-of-year examination: 30 per cent.

Prerequisites: There are no prerequisites for entry to Units 3 and 4 but interest and basic knowledge of electronics or digital technology as well as keen interest in emerging technologies and engineering would be advantageous.

Subject to a materials charge. Please refer to the *2020 Materials Charges* document for more information.

VCE Planning

At Viewbank College, most students will undertake a VCE program of 22 units over 2 years. Students will study 12 units, (6 per semester) at Year 11, and 10 units (5 per semester) at Year 12. Variations on this program will, however, be available to some students.

VCE requirements direct students towards a breadth of choice while also enabling specialisation to suit individual aspirations. The selection of an appropriate course is of vital importance and should be carefully considered.

Before final course decisions are made, all students will undergo individual interviews with Careers Counsellors, Year Level Leaders and the relevant Senior Leaders. It is here that details of course selection will be finalised in accordance with students' final reports. Failure by any student to present for these final course selection interviews may jeopardise their chances of being enrolled in the subjects of their choice.

Students should consider the following guidelines and factors when choosing a VCE program and subjects.

1. Career intentions Studies should be appropriate for the career a student intends to follow.
2. Future options In choosing a VCE course, students should endeavour to keep career and further study options as open as possible. Consider two or three possible VCE courses rather than just one.
3. Prerequisite subjects for tertiary courses Many courses at universities have prerequisite studies. Students should research the prerequisites for courses they are interested in. Prerequisites are compulsory to gain entry into those courses.
4. Interests and abilities It is important that a student chooses studies which interest them and in which they can achieve. Students who choose unwisely and are unable to cope with a study may lose confidence and find themselves struggling in other studies as well.
5. Achieving a balance It is important to maintain a balance between career interests and the value of education in its own right. Students should attempt to balance their emotional, intellectual, physical and artistic needs when choosing their subjects.
6. Resources The most useful resources are as follows:
    - www.viewbankcollegecareers.com which contains external links to post-school options, including universities, TAFEs, workplace learning and apprenticeships.
    - The Careers staff – recommended this be the primary resource for pathways information.

Students should discuss their subject selections with a wide range of interested people - parents, subject teachers, Careers staff and Level Leaders.

The school intends to offer the VCE units listed in this handbook for study in 2020. However, subjects will only run if there is sufficient demand from students. The feasibility of a class running is dependent on many variables and constraints: the timetable, the minimum class size and the physical and human resources available at the school. Many of these issues cannot be dealt with until late in the year when results are known and the program for the rest of the school is determined. The school also reserves the right to modify a student's course selection in view of his/her final report.

The College will always endeavour to satisfy the choices and requirements of as many students as possible. Unfortunately, there can be situations where students may not receive their first choice.

Please refer also to VCE Pathways on page 156.

Vocational Education & Training Programs (VET)

Viewbank College permits participation in a Vocational Education and Training (VET) program. This allows students to complete a nationally recognised TAFE certificate as part of their regular VCE studies. Work placement in industry is often a component, and in some cases, VET subjects offer scored assessment (a Study Score) at Units 3 & 4. VET allows students to gain knowledge and experience in a learning area that is of particular interest to them – this can lead to future career pathways and options. VET qualifications usually lead directly into further education and training and allow students to experience industry standard equipment, technology and training methods. Completion of a VET program enables students to graduate with both a VCE Certificate and a Vocational Education and Training qualification. Most VET studies are offered off campus via the Northern Melbourne VET Cluster. A separate booklet outlines the studies available. Through our membership of the Northern Melbourne VET Cluster, we are also able to offer students in Years 10-12 a wide range of VET programs (currently around 25). The cluster comprises a range of schools, and allows our students to benefit from sharing arrangements in terms of classes and trainers. Examples of programs regularly on offer include: Fashion design, Automotive, Media, Engineering, Hospitality, Interior Design, Building and Construction, Plumbing, Music, Sport and Recreation (and many more).
Students and parents who are interested in VET studies should contact the VET Coordinator for more information. Students undertaking VETis courses leave school early one day per week (usually Wednesday) to attend classes at neighbouring secondary schools. For successful completion of VET certificates, most courses require a 2 year commitment. A detailed explanation of all the courses offered in 2019 can be found in the *Northern Melbourne VET Cluster Handbook* available from the Careers Office.

NOTE: All VET courses incur material fees.

ADVANTAGES OF A VET PROGRAM

- Students can complete one or more VET Certificates whilst completing their VCE.
- Students who successfully complete a two year sequence are often able to count this study in their *primary four*. The study score maybe included in the calculation of the ATAR.
- Completion of a Vocational Education and Training Certificate provides students with a range of pathways: university, diploma and/or certificate courses.
- Students will develop specific industry level skills through workplace learning.
- School-industry programs give students from Years 10 and 12 the opportunity to combine traditional classroom learning with hands-on industry training.
- Each of the VET programs enables students to gain practical confidence as vocational competencies are developed.
- Students may have enhanced employment opportunities.
- The acquisition of both a VCE Certificate issued by the VCAA and a VET Certificate via the Registered Training Organisation.
- Each VET Certificate is nationally accredited in the Australian Qualifications Framework.
- The VET Certificate is recognised by the State Training Board.

PATHWAYS

Students completing these programs have a range of options available.
They may:

- Apply to a University course with credit for their vocational subjects included in their ATAR score.
- Proceed to a TAFE course, entering the program with credit for modules already completed.
- Proceed directly to employment using the vocational skills acquired, especially those certificates recognised as pre apprenticeship qualifications.

RECOGNITION OF PRIOR LEARNING

Recognition of Prior Learning (RPL) is the acknowledgement of skills and knowledge previously attained through formal training, work experience and/or life experience. Students may be eligible for credit into a Certificate III VET course based on relevant prior learning and/or experience. Recognition of Prior Learning is available on application to all Certificate III VET programs offered at Viewbank College. RPL Application Forms can be obtained from the VET Coordinator.

WORK PLACEMENT

Students undertaking a VET program are encouraged to complete a structured industry-based work placement during the program. The purpose of the work placement is to enable students to extend the skills and knowledge they have gained from their training in the VET program. Viewbank College encourages students to complete a work placement during the school holidays, or in the week following the Term 4 examination period, though students may be able to negotiate other times throughout the year.

School Based Apprenticeships and Traineeships

School Based Apprenticeships and Traineeships (SBAT) allow students over 15 years of age to work as paid part-time apprentices, or trainees, while still at school. While doing VCE, a student can enter the workforce in a particular industry by working and training on the job, and receiving off the job training from a Registered Training Organisation.

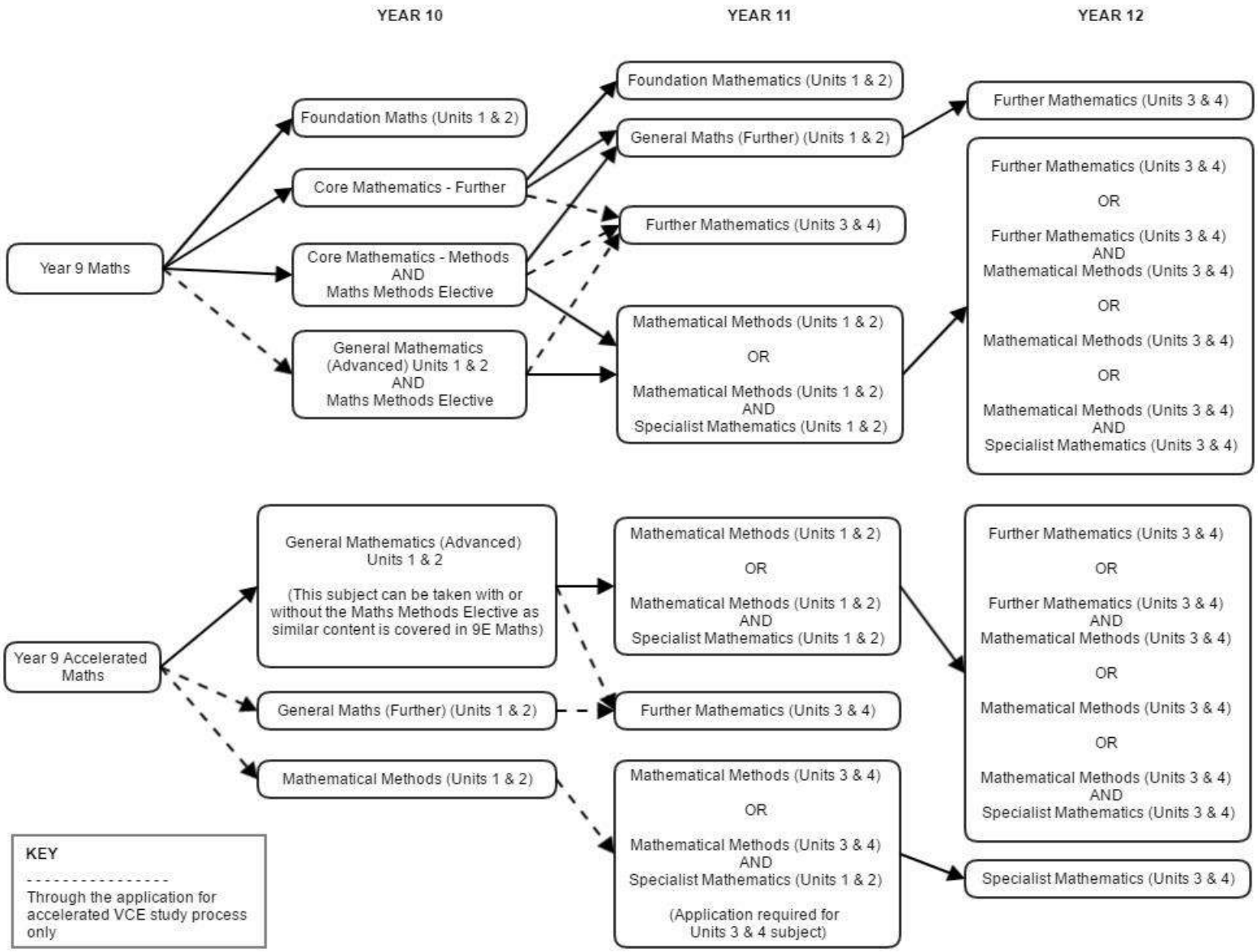
The minimum requirements of an SBAT:

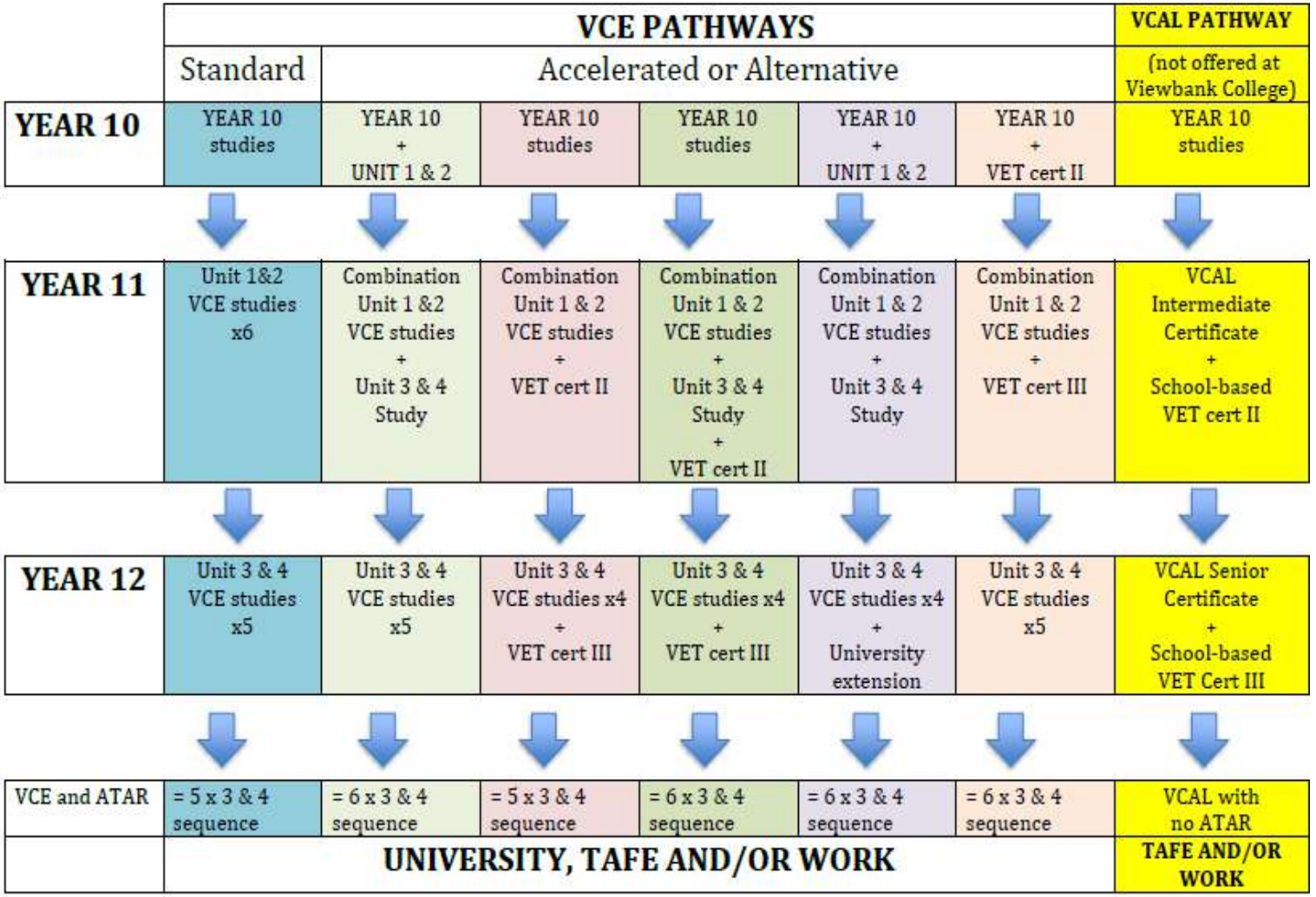
- 13 hours per week which is made up of a combination of work and training.
- It must impact the school timetable and cannot be solely completed outside school hours.
- Viewbank College must sign and agree to the training.
- Employers must pay at least award wages.

HOW A SBAT CONTRIBUTES TO THE VCE

Upon successful completion of the SBAT, the School Based Apprentice will have gained credit towards a VET (Vocational Education & Training) qualification and their VCE. If a student is studying VCE, the SBAT may contribute to their ATAR score.

The Pathways Leader, the VET Coordinator and the Well-Being Leader would need to be consulted before a student considers this option.


YEAR 10
YEAR 11
YEAR 12
Year 9 Maths
Foundation Maths (Units 1 & 2)
Core Mathematics - Further
Core Mathematics - Methods
AND
Maths Methods Elective
General Mathematics
(Advanced) Units 1 & 2
AND
Maths Methods Elective
Foundation Mathematics (Units 1 & 2)
General Maths (Further) (Units 1 & 2)
Further Mathematics (Units 3 & 4)
Mathematical Methods (Units 1 & 2)
OR
Mathematical Methods (Units 1 & 2)
AND
Specialist Mathematics (Units 1 & 2)
Further Mathematics (Units 3 & 4)
Further Mathematics (Units 3 & 4)
OR
Further Mathematics (Units 3 & 4)
AND
Mathematical Methods (Units 3 & 4)
OR
Mathematical Methods (Units 3 & 4)
OR
Mathematical Methods (Units 3 & 4)
AND
Specialist Mathematics (Units 3 & 4)
Year 9 Accelerated
Maths
General Mathematics (Advanced)
Units 1 & 2
(This subject can be taken with or
without the Maths Methods Elective as
similar content is covered in 9E Maths)
General Maths (Further) (Units 1 & 2)
Mathematical Methods (Units 1 & 2)
Mathematical Methods (Units 1 & 2)
OR
Mathematical Methods (Units 1 & 2)
AND
Specialist Mathematics (Units 1 & 2)
Further Mathematics (Units 3 & 4)
Mathematical Methods (Units 3 & 4)
OR
Mathematical Methods (Units 3 & 4)
AND
Specialist Mathematics (Units 1 & 2)
(Application required for
Units 3 & 4 subject)
Further Mathematics (Units 3 & 4)
OR
Further Mathematics (Units 3 & 4)
AND
Mathematical Methods (Units 3 & 4)
OR
Mathematical Methods (Units 3 & 4)
OR
Mathematical Methods (Units 3 & 4)
AND
Specialist Mathematics (Units 3 & 4)
Specialist Mathematics (Units 3 & 4)
KEY
- - - - - - - - - - - - - - - -
Through the application for
accelerated VCE study process
only



VCE = Victorian Certificate of Education **VET** = Vocational Education and Training **VCAL** = Victorian Certificate of Applied Learning
ATAR = Australian Tertiary Admissions Rank

Trial Subject Selection Sheet

Courses or careers I am interested in:

1. _____

2. _____

3. _____

4. _____

What are the prerequisites of the courses or careers I have listed above?

1. _____

2. _____

3. _____

4. _____

(Indicate the study name and the Unit level in each box)

Yr11 Unit 1	ENGLISH 1 or EAL					
Yr11 Unit 2	ENGLISH 2 or EAL					
Yr12 Unit 3	ENGLISH 3 or EAL					(Units 3 & 4 MUST be completed as a sequence)
Yr12 Unit 4	ENGLISH 4 or EAL					

REMEMBER: Students should select 22 units over a period of 2 years. Most students will select 12 units in Year 11 and 10 units in Year 12. All students must include in their program 4 units from the English group and at least 3 sequences of level 3/4 units which can include further sequences from the English group.

Glossary

Australian Tertiary Admission Rank (ATAR)
The overall ranking on a scale of 0–99.95 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.

General Achievement Test (GAT)
A compulsory test for all students undertaking a VCE Units 3 and 4 sequence or scored VCE VET Units 3 and 4 sequence.

Outcomes
What you are expected to know and be able to do by the time you have finished a VCE unit.

Registered Training Organisation (RTO)
An institution that has been approved by the Victorian Registration and Qualifications Authority (VRQA) to deliver specified trainings.

Satisfactory completion
This means you have achieved the outcomes for the unit. An 'S' is awarded for satisfactory completion of a unit. If the unit is not satisfactorily completed, then an 'N' is awarded.

Semester
One half of the academic year. Most units last for one semester.

Sequence
The order in which you undertake your VCE units, for example a Units 3 and 4 sequence.

Statement of Attainment
A record of recognised learning that may contribute towards a qualification in the VET sector.

Statement of Results
A set of documents that formally state the results you achieved in the VCE and/or VCAL, and whether or not you have graduated.

Studies
The subjects available in the VCE.

Study design
The description of the content of a VCE study, and how students' 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
A score with a maximum of 50 which shows how you performed in a VCE study or scored VCE VET, relative to all other students doing that same study. It is calculated using the scores achieved in each of the three graded assessments for the study.

Technical and Further Education (TAFE)
TAFE institutes offer a range of mainly vocational tertiary education courses up to the level of Advanced Diploma.

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

Victorian Certificate of Applied Learning (VCAL)
The VCAL is a 'hands-on' option for students in Years 11 and 12. Like the VCE, the VCAL is a recognised senior secondary school qualification. VCAL students are more likely to be interested in going on to training at TAFE, doing a apprenticeship or getting a job after Year 12.

Victorian Curriculum and Assessment Authority (VCAA)
The Victorian State Government agency responsible to the Minister for Education for the management of the VCE and VCAL.

Vocational Education and Training (VET)
This refers to nationally recognised vocational certificates.

Victorian Tertiary Admissions Centre (VTAC)
The VTAC is responsible for calculating and distributing the ATAR and for processing student applications for tertiary entrance to universities, TAFE institutes and other further education colleges.