# VCE & VOCATIONAL PATHWAYS

UNIT DESCRIPTORS
2024





INTEGRITY • COLLABORATION • ASPIRATION • EXCELLENCE



TRAFALGAR HIGH SCHOOL

#### INTRODUCTION

In 2023, Victoria moved to a new integrated senior secondary certificate that has aligned the Victorian Certificate of Education (VCE) and the Victorian Certificate of Applied Learning (VCAL) to give students greater choice and flexibility to pursue their strengths and aspirations and develop the skills and capabilities needed to succeed in further education, work and life.

The VCE, with the inclusion of the Vocational Major to cater for students with vocation and applied aspirations will be implemented in full at Trafalgar High School in 2024. More information about the senior secondary reforms can be found at:

https://www.vcaa.vic.edu.au/victorianseniorsecondarycertificatereform/Pages/Index.aspx

This handbook contains everything you need to know about the VCE and VCE Vocational Major programs offered by Trafalgar High School.

The VCE and VCE Vocational Major programs are carefully planned each year taking into account the latest information regarding possible career and tertiary education options. Senior school students are provided with a range of programs to guide them in their career choices including Pathways Days and the Managed Individual Pathways Program.

Please read the material carefully. A good starting point is to decide what career area you would like to pursue after finishing your VCE or VCE Vocational Major. The course counselling process at the school will help you with your decisions. This involves you working with your parents or guardians, your teachers, a course counsellor and with Ms Gabrielle Evans, our pathways advisor.

The handbook provides valuable information to match your choice to the most appropriate program in your final years of school.

#### **New Students**

Trafalgar High School welcomes new enrolments. Please contact the school and an appointment can be made to discuss your learning program options with our Senior School Coordinators.

We look forward to working with you in the Course Counselling program.

Brett Pedlow Principal There are two main sections, which have been colour coded for easy reference. They are:

General Information - Coloured Section
Unit Descriptions for subjects offered - White Section

If further information is required about course structure or about particular subjects, please do not hesitate to contact the school.

Principal Mr. Brett Pedlow Assistant Principal Ms. Jimi Hopkins

Ms. Amanda McQualter

Ms. Lee Jinks

Senior Sub-School Leader Ms. Louisa Draper

Year 12 Coordinator
Year 11 Coordinator
Year 10 Coordinator
VASS Coordinator
VASS Coordinator
ducation Supervisor

Ms. Rebecca Hardman
Ms. Bronwyn O'Meara
Mr. Richard Morrison
Ms. Jodie Deppler
Ms. Louisa Draper

Distance Education Supervisor Ms. Louisa Draper Senior Pathways Coordinator Ms. Gabrielle Evans

#### **FACULTY LEADERS**

Arts Mr. Ben Smith
Technologies Mr. Allen Gilmore
Languages Ms. Lean Foo

Humanities Mr. Michael Spence
English Ms. Sarah Sandford
Health & Physical Education Ms. Fiona McLaurin and

Mr. Alan Schack

Mathematics

Ms. Field McLadin and
Mr. Alan Schack

Ms. Belinda Devitt

Science Mr. Antony Chandler VCE Vocational Major Ms. Jessica Hancock

Staff can be contacted either by the school email address or school number:

Trafalgar High School. School Road, Trafalgar, 3824.

Telephone: 5633 1733

email: trafalgar.hs@education.vic.gov.au

#### **TABLE OF CONTENTS**

INTRODUCTION	2
WHERE TO NOW?	6
HOW VCE OPERATES FOR YEAR 11 AND YEAR 12 STUDENTS	7
VCE MATHEMATICS PATHWAYS	10
VCE ENGLISH REQUIREMENTS	11
VCE STUDIES OFFERED AT TRAFALGAR HIGH SCHOOL	12
CHOOSING A COURSE OF STUDY	12
DISTANCE EDUCATION TUITION	13
VCE VOCATIONAL MAJOR (VM)	14
VCE VICTORIAN PATHWAYS CERTIFICATE (VPC)	17
CAREER INFORMATION	18
TERTIARY ENTRY REQUIREMENTS:	19
APPROVED HIGHER EDUCATION STUDIES IN SCHOOLS	20
VDSS = VOCATIONAL EDUCATION AND TRAINING DELIVERED TO SCHOOL	
STUDENTS	21
SUBJECTS OFFERED	
	25
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING	<b>25</b> 25
VISUAL ARTSART MAKING & EXHIBITINGMEDIA	<b>25</b> 252525
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING	<b>25 25</b> 252830
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING  MEDIA  ART CREATIVE PRACTICE	25 25 28 30 33
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING  MEDIA  ART CREATIVE PRACTICE  VISUAL COMMUNICATION & DESIGN	2525283033
SUBJECTS OFFERED  VISUAL ARTS	252530333638
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING	2525303336363638
SUBJECTS OFFERED  VISUAL ARTS  ART MAKING & EXHIBITING  MEDIA  ART CREATIVE PRACTICE  VISUAL COMMUNICATION & DESIGN  PERFORMING ARTS  DANCE  DRAMA  MUSIC	2525303336363640
SUBJECTS OFFERED  VISUAL ARTS	2525303336364042
SUBJECTS OFFERED  VISUAL ARTS	25253036364042
SUBJECTS OFFERED  VISUAL ARTS	252530333636364042424444
SUBJECTS OFFERED  VISUAL ARTS	25253036363640424242444444

GLOBAL POLITICS50	)
HISTORY	
VCE PHILOSOPHY55	i
ENGLISH	58
ENGLISH58	)
LITERATURE61	
HEALTH AND PHYSICAL EDUCATION	63
HEALTH AND HUMAN DEVELOPMENT63	;
OUTDOOR AND ENVIRONMENTAL STUDIES65	
PHYSICAL EDUCATION68	•
TECHNOLOGIES	71
FOOD STUDIES71	_
PRODUCT DESIGN & TECHNOLOGY73	
DIGITAL TECHNOLOGIES	75
APPLIED COMPUTING75	j
MATHEMATICS	77
SCIENCE	82
BIOLOGY82	)
CHEMISTRY85	
ENVIRONMENTAL SCIENCE87	
PHYSICS89	
PSYCHOLOGY91	

# Where to Now?

Pathway options at Trafalgar High School

Senior secondary education	Further study options	Employment options
VCE	Tertiary study options requiring an ATAR (e.g. for university and TAFE)	Apprenticeship or employment
VCE VM	Tertiary study options that don't require an ATAR (e.g. for apprenticeships, traineeships, further education and training, alternate university entry and workforce entry)	Apprenticeship or employment
VPC	VCE VM or Certificate II level VET (e.g. entry-level Vocational Education and Training, or straight into a job)	Community participation, apprenticeship or employment

\*VET (Vocational Education & Training).
This is industry specific based training and learning, undertaking a Certificate II or III.

Typically one day per week over two years

#### **HOW VCE OPERATES FOR YEAR 11 AND YEAR 12 STUDENTS**

VCAA – Victorian Curriculum and Assessment Authority is the body responsible for the implementation of the VCE.

The VCE course is made up of studies and units, some of which must be studied as a sequence. A study is a subject, for example, English or Biology. It is made up of four units (Units,1,2,3 and 4), each of which is a semester in length.

Student typically study Unit 1&2 sequences in Year 11 and Unit 3&4 sequences in Year 12. However, students can study Unit 1&2 sequences in Year 10 and Unit 3&4 sequences in Year 11.

Most students complete 22 units towards their VCE. Year 11 students usually complete 12 units and Year 12 students usually complete 10 units.

At Trafalgar High School students may attempt one Unit 1&2 sequence whilst in Year 10 in order to prepare them for the demands of VCE.

All Year 10 and 11 students are given opportunities for personal course counselling before making subject choices for the following year.

To graduate with a VCE, students must satisfactorily complete at least 16 units.

These must include:

- Three units from the English group, two of which must be a Unit 3 and 4 sequence. (see the VCAA website www.vcaa.vic.edu.au)
- At least three additional Unit 3 and 4 sequences.

#### **OUTCOMES AND THE SATISFACTORY (S) COMPLETION OF A UNIT**

Each unit has a list of outcomes specific to that study. Each outcome is described in terms of key knowledge and key skills.

The award of satisfactory completion for a unit is based on the *subject teacher's professional judgement* that the student has demonstrated achievement of the set of outcomes specified for the unit.

Demonstration of achievement of outcomes and satisfactory completion of a unit are determined by evidence gained through the assessment of a range of learning activities and tasks.

#### **ASSESSMENT IN UNITS 1 & 2**

For Units 1 and 2 students receive either S (Satisfactory) or N (Not Satisfactory) for each unit. There will also be a range of assessments that are marked with a percentage grade. Assessments in Units 1 and 2 are set and marked by the teachers at the school level. The assessments have deadlines and work will need to be submitted on time. Deadlines can only be extended in special circumstances.

For Unit 1 and 2, only the S or N result is reported to the VCAA.

#### **ASSESSMENT IN UNITS 3 & 4**

For Units 3 and 4 students receive either S (Satisfactory) or N (Not Satisfactory) for each unit.

There are three graded assessments for each VCE study at Unit 3 and 4 level. Depending on the study these may be School-based Assessments and/or external assessments.

For example, the assessment in English will have:

- School assessed Coursework in Unit 3,
- School assessed Coursework in Unit 4, and
- An externally assessed Examination.

**School-based Assessments** are set by the teacher and include **School-assessed Coursework** (SAC) that is completed at school, and **School-assessed Tasks** (SAT) that are completed at school and at home. School-based Assessments are marked by at the school.

**External Assessments** are set and marked by the VCAA. Usually this will be an exam – whether written, oral, performance or in an electronic format. Each unit 3&4 sequence has either one or two external assessments. External Assessments are marked by assessors who are experts in there are of study.

Exams are held each year in October and Novemeber.

The percentage that each assessment contributes to the student's overall assessment in that study varies from study to study.

For specific details of the Assessment Structure for VCE Studies refer to the VCAA website.

#### **STUDY SCORE**

If students obtain at least two graded assessments and achieve an S for both Units 3 and 4 in a study in the same year, they will receive a study score.

A study score is a number between 0 and 50 that indicates a ranking in terms of all students doing that study in that year.

Each of the three assessments in a study contributes a certain percentage towards the study score. Using the English example again:

- Unit 3 course work contributes 25%
- Unit 4 course work contributes 25%
- The written examination contributes 50% towards the overall score for each student.

#### **ATAR**

Students wanting to pursue a pathway in higher education at University will need to obtain an ATAR.

The ATAR is calculated by the Victorian Tertiary Admissions Centre (VTAC) on the basis of study scores and is presented as a ranking between 0.00 and 99.95.

If you want to obtain an ATAR, you need to have at least four study scores, one of which must be from the English group.

You can find out more information about the ATAR, subject combinations and course choices through VTAC

#### STATISTICAL MODERATION

To avoid the problems associated with a teacher in one school marking course assessment either harder or easier than a teacher in another school, statistical moderation is used. The teacher's marks are statistically moderated against the exam results of the students in that study, in that school and the GAT.

If the teacher's marks are higher than the exam results of the group, the student's marks are pulled down; likewise, if the teacher's marks are lower, the student's marks are pulled up.

Students are given feedback on each SAC from their subject teacher.

It is important to note that due to the moderation process, the mark awarded to the student by the teacher is likely to change.

HOWEVER, THE RANKING OF THE STUDENT BY THE TEACHER DOES NOT CHANGE.

#### **GENERAL ACHIEVEMENT TEST - GAT**

The GAT consists of two sections:

Section A will assess literacy and numeracy skills.

Section B will assess skills in mathematics, science, technology, the arts and humanities, with an increased focus on critical and creative thinking skills.

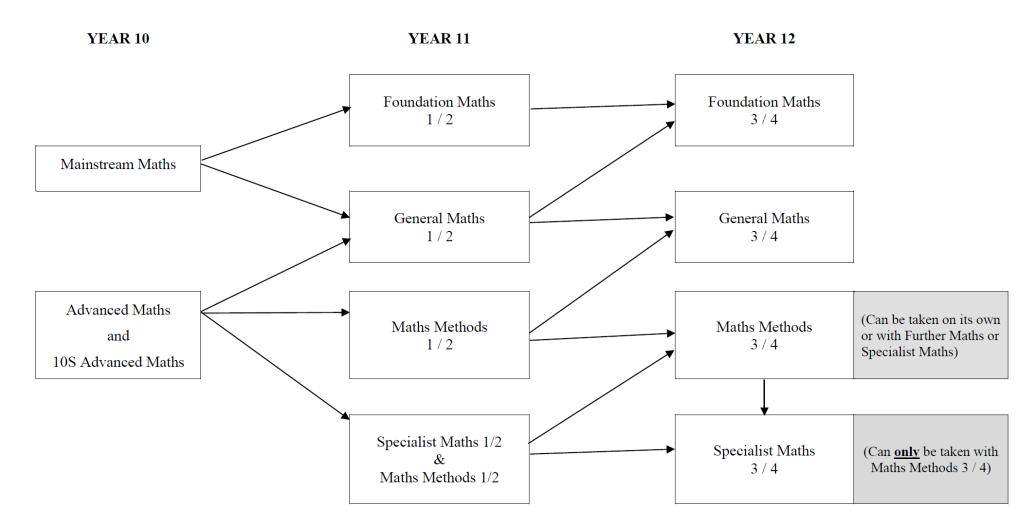
All students enrolled in at least one Unit 3 & 4 sequence must sit the GAT in that year. Some students will sit the GAT in Year 11 and Year 12.

The GAT indicates whether students have demonstrated the literacy and numeracy skills typically expected of someone completing their secondary schooling.

Although the results do not count directly toward a student's VCE result, they play an important role in checking that school-based and external assessments have been fairly and accurately assessed. The GAT may also be used to determine Derived Examination Scores for student who are ill or affected by other personal circumstances at the time of the VCE exams and whose result is unlikely to be a fair or accurate indication of their learning or achievement.

Further information regarding the rules, Procedures and Policies for Senior Students at Trafalgar High School can be found in the 'Trafalgar High School Senior School Rules and Procedures Handbook'.

### **VCE MATHEMATICS PATHWAYS**



<sup>\*</sup>Selection into VCE Mathematics is based on teacher recommendations.

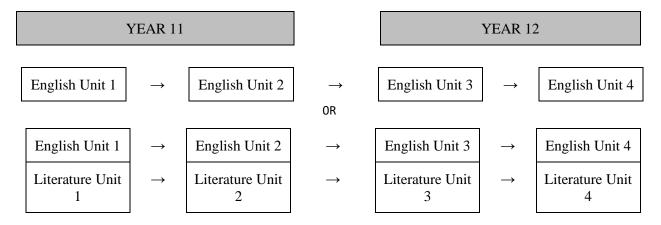
#### **VCE ENGLISH REQUIREMENTS**

The compulsory English requirement for the VCE is fulfilled by the satisfactory completion of an approved combination of three units of English-type subjects over the four semesters of the VCE. Unit 3 and 4 units must be taken as a sequence or a pair (i.e. as one subject over the whole Year 12 year.)

English Units 1 and 2 are offered in Year 11 and English Units 3 and 4 at Year 12. Literature is offered as Units 1 and 2 (to Year 11 and 10S students). Literature is also offered at Units 3 and 4 to both Year 11 and Year 12 students (generally those who have studied it the year before).

Students are able to undertake Literature Units 1-4 without English Units 1-4 <u>but this is not</u> <u>recommended</u>. Those with a passion for reading, writing and discussing ideas are advised to <u>undertake both English and Literature</u>. This will give these students an opportunity to strengthen their skills in both subjects and maximise the ATAR potential of an area of strength. <u>Signed</u> <u>approval from the Head of English KLD is required to undertake only Literature at Years 11 and 12. (See course counsellor for relevant form).</u>

Other combinations of English and Literature units than those presented below are possible but not usual. These will only be made available after consultation with Head of English KLD.



10S students may undertake Literature Units 1 and 2 in Year 10 and complete the Unit 3 and 4 sequence in Year 11.

When selecting courses of study, students will need to consider the Maths and English requirements carefully.

#### **VCE STUDIES OFFERED AT TRAFALGAR HIGH SCHOOL**

Visual Arts			
Art Making & Exhibiting	(4 Units)	Health & Physical Education	
Media	(4 Units)	Health & Human Development	(4 Units)
Art Creative Practice	(4 Units)	Outdoor & Environmental Studies	(4 Units)
Visual Communication Design	(4 Units)	Physical Education	(4 Units)
Viodai Commanication Beolgin	(1 011110)	1 Try oldar Edddallott	(101110)
Performing Arts		<u>Technologies</u>	
Dance	(4 Units)	Food Studies	(4 Units)
Drama	(4 Units)	Product Design & Technology	(4 Units)
Music	(4 Units)	3 3,	,
	(/	Digital Technologies	
<u>Languages</u>		Applied Computing	(4 Units)
Indonesian Second Language	(4 Units)	. htm	(
	( ,	<u>Mathematics</u>	
Business & Economics		Foundation Mathematics	(4 Units)
Accounting	(4 Units)	General Mathematics	(4 Units)
Business Management	(4 Units)	Mathematical Methods	(4 Units)
Legal Studies	(4 Units)	Specialist Mathematics	(4 Units)
Logar Stadios	(1 011110)	opeoidilet Mathematice	(1011110)
Humanities		<u>Science</u>	
Global Politics	(4 Units)	Biology	(4 Units)
Geography	(4 Units)	Chemistry	(4 Units)
History	(4 Units)	Environmental Science	(4 Units)
Philosophy	(4 Units)	Physics	(4 Units)
	(101110)	Psychology	(4 Units)
<u>English</u>	(4 Units)	. 5,55.59,	( : 31116)
English	(4 Units)		
Literature	(1 011110)		
Littorature			

#### **CHOOSING A COURSE OF STUDY**

When selecting a course of study, students should refer to the subject outlines in this book.

Students should also consider choosing studies that:

- You enjoy
- You are good at
- Reflect what you are interested in studying at tertiary level
- Help provide you with more career options if you are undecided

Subjects should not be considered on the basis of the courses taken by friends or on the basis of teacher popularity, etc.

Whilst students should finalise their course selections by the end of the year, they may alter their courses within the first three weeks of the school year, after consultation with their Year Level Coordinator, Pathways Coordinator and the individual subject teachers concerned

#### DISTANCE EDUCATION TUITION

Some subjects are available to students through the Distance Education School. This tuition involves students and teachers using written communication as well as telephone and electronic facilities in the learning process and exchange of information. (Application for tuition in these subjects is made in December of the previous year through the Distance Education Supervisor).

Distance Education students are required to pay a fee of \$160 per subject per year. Language Distance Education students are required to pay a fee of \$160 per subject per year.

Students and parents should be aware that tuition is only available under certain conditions. In summary these are:-

- Where no class is available in a language which has been offered at THS (i.e. Indonesian)
- Where there is an immediate family background (i.e. Parent who speaks the language)
- Where a VCE subject is either not offered at Trafalgar High School or is unavailable to a student due to a clash in blockings.
- Where the student has been studying a VCE subject not available at Trafalgar High School at a previous school and has transferred during the year.

Students interested in Distance Education tuition should apply to the appropriate Year Level Coordinator in late November. They should then see the Distance Education Coordinator, whereupon subject availability can be discussed.

Students should see the Distance Education Coordinator in the school (Trafalgar High) to confirm application process and payment.

<u>NOTE</u>: Every effort would be made to have students taught directly rather than by Distance Education. This may involve students taking single subjects in another school.

WE HAVE FOUND IN THE PAST YEARS THAT STUDENTS NEED TO BE PARTICULARLY WELL-MOTIVATED AND ORGANISED TO BE SUCCESSFUL IN DISTANCE EDUCATION COURSES. YOU SHOULD REMEMBER THAT A TEACHER IS NOT PROVIDED TO ASSIST AND GUIDE STUDENTS IN A CLASSROOM SITUATION.

ONCE ENROLLED, IT IS THE STUDENT'S RESPONSIBILITY TO COMMUNICATE WITH THEIR TUTOR AT THE DECV OR VSL DIRECTLY. THE STUDENT MUST ENSURE THAT THEY HAVE THE RELEVANT COURSE MATERIALS, TEXTBOOKS AND EQUIPMENT REQUIRED TO COMPLETE THE COURSE. THEY SHOULD DIRECT ANY QUERIES ABOUT THE CURRICULUM AND/OR ASSESSMENT TO THEIR ASSIGNED TUTOR.

A STUDENT'S ELIGIBILITY TO UNDERTAKE DISTANCE EDUCATION WILL BE SUBJECT TO NEGOTIATION WITH LEVEL COORDINATORS AND THE DISTANCE EDUCATION SUPERVISOR ON AN INDIVIDUAL BASIS AND MUST BE IN ACCORDANCE WITH TRAFALGAR HIGH SCHOOL'S DISTANCE EDUCATION POLICY.

#### **VCE Vocational Major (VM)**

VCE Vocational Major is another way for students to complete their secondary schooling. The VCE Vocational Major (VM) is a vocational and applied learning program within the VCE designed to be completed over a minimum of two years, completing a 1 – 4 Unit sequence. The VCE VM will give students greater choice and flexibility to pursue their strengths and interests and develop the skills and capabilities needed to succeed in further education, work and life. It prepares students to move into apprenticeships, traineeships, further education and training, university (via non-ATAR pathways) or directly into the workforce.

#### Structure

The VCE VM program covers five main areas of study, all of which must be met to be awarded a certificate. Students are required to meet the following pre-requisites, and their programs will be designed to mee the demands of the certificate:

To be eligible to receive the VCE VM, students must satisfactorily complete a minimum of 16 units, including:

- 3 VCE VM Literacy or VCE English units (including a Unit 3–4 sequence)
- 2 VCE VM Numeracy or VCE Mathematics units
- 2 VCE VM Work Related Skills units
- 2 VCE VM Personal Development Skills units, and
- 2 VET credits at Certificate II level or above (180 nominal hours)

Students must complete a minimum of three other Unit 3–4 sequences as part of their program. Units 3 and 4 of VM studies may be undertaken together over the duration of the academic year to enable these to be integrated.

Students in Year 11 in 2023 enrolling into the VCE VM will undertake the following studies:

#### **Literacy Skills:**

#### Unit 1: Literacy for Personal Use and Understanding and Creating Digital Texts

During unit 1 students will develop their reading and viewing skills and expand their responses beyond the Victorian Curriculum F–10: English.

Throughout this unit students will explore a variety of areas of studies. Area of study 1 focuses on the structures and features of a range of texts – print, visual and film – and the personal reasons readers may have for engaging with these texts. Students will read or watch a variety of texts for a personal purpose, such as finding information. Texts should be chosen from a range of local and global perspectives, including First Nations peoples' and multicultural perspectives, and should include film, TV, online videos, song, poetry, biographies and digital content, and other texts of interest to the cohort. Through discussions and class activities students will develop their understanding of the structures and features of these text types, and examine how they are influenced by purpose, context, audience and culture.

During area of study 2, students build on and work to consolidate their digital literacy skills. Students will develop their capacity to critically assess digital texts, including webpages for vocational and workplace settings, podcasts and social media. They will continue to develop the analytic skills they used in Area of Study 1 to identify and discuss aspects of digital texts. As a part of their studies, students will discuss the reliability and effectiveness of websites in connecting with audiences and delivering factual messages and information.

#### Unit 2: Understanding issues and voices and Responding to Opinions

In area of study 1, students will engage in issues that are characterised by disagreement or discussion, developing and expanding upon students' learning from Unit 1. Students will consider the values and beliefs that underpin different perspectives and how these values create different biases and opinions, including

thinking about how these issues might arise in particular vocational or workplace settings. Students will read, view and listen to a range of texts and content that demonstrate diverse opinions on a range of local and global issues, and which may impact on their community or be of particular concern to a vocational or workplace group. Students should consider the language and purpose of different text types and consider how this language is used to influence an audience

In area of study 2, students practise their use of persuasive language and participate in discussion of issues, either in print, orally or via a digital platform. Students consider their own perspectives on issues and develop reasoned and logical responses to these discussions in a respectful and thoughtful manner.

Students consider the arguments presented and critically analyse the language, evidence and logic of the arguments of others so that they can create their own response. In constructing their own responses, students select evidence that supports their viewpoint. Students learn to accurately reference and acknowledge the evidence they select.

In developing their responses, students draft, revise, check and edit their writing to improve the clarity and meaning of their work.

#### **Numeracy Skills:**

VCE Mathematics (VCE Foundation Maths Unit 1 &2 or VCE General Maths Unit 1 &2)
 Please refer to subject outline in the VCE Mathematics section of this handbook

#### **Work Related Skills:**

#### **Unit 1: Careers and Learning for the Future**

This unit recognises the importance of sourcing reliable information relating to future education and employment prospects to engage in effective pathway planning and decision-making. Students will investigate information relating to future employment, including entry-level pathways, emerging industries, and growth industries and trends, and evaluate the impact of pursuing employment in different industries. Students will reflect on this research in the context of their individual skills, capabilities and education and/or employment goals. They will develop and apply strategies to communicate their findings.

#### **Unit 2: Workplace Skills and Capabilities**

As the nature of work changes over time, so do the skills and capabilities needed for success. Fundamental to achieving personal goals relating to future education and employment is the ability to recognise and develop individual skills and capabilities that are valued in a chosen pathway. In this unit, students will consider the distinction between essential employability skills, specialist and technical work skills and personal capabilities, and understand the importance of training and development to support the attainment and transferability of skills. Students will collect evidence and artefacts relating to their personal skills and capabilities and promote them through resumes, cover letters and interview preparation.

#### **Personal Development Skills:**

#### **Unit 1: Healthy Individuals**

This unit focuses on the development of personal identity and individual pathways to optimal health and wellbeing. It begins with concepts of personal identity and the range of factors that contribute to an individual's perception of self and individual health and wellbeing. Students will use these findings to enhance an understanding of community cohesion, community engagement and how sense of identity may affect outcomes in different contexts. Students will investigate the elements of emotional intelligence and begin to develop an awareness of interrelationships between communities and the health and wellbeing of individuals. Students will investigate local health-promoting organisations and resources and play an active, participatory role in designing and implementing activities or mechanisms to improve health and wellbeing. This unit highlights the importance of critical and creative thinking and clear communication as individuals explore personal identity and the role of community. Students will examine relationships between technologies and health and wellbeing, and develop tools for analysing the reliability, validity and accuracy of information and the efficacy of health messages.

#### **Unit 2: Connecting with Community:**

This unit focuses on the benefits of community participation and how people can work together effectively to achieve a shared goal. It begins with definitions of community and different types of communities at a local, national and global level. Students will look at the relationships between active citizenship, empathy and connection to culture, and individual health and wellbeing. They will investigate the barriers and enablers to problem solving within the community.

In the topic of community engagement, students will seek to understand different perspectives on issues affecting a community. They will reflect on relationships between community issues, social cohesion, and health and wellbeing, and the importance of clear information and communication. Students will investigate how communities may be called upon to support individual members and identify effective strategies for creating positive community change. They will plan, implement and evaluate an active response to an individual's need for community support.

#### **Industry Specific Skills**

- VET Course e.g.: Hospitality, Building, Hairdressing, Community Services, Engineering, Automotive delivered by TAFE or other provider.

Students will be off-campus for up to 2 days each week completing TAFE and/or Industry Work Placement. The work placement must be related to the student's VET & chosen career pathway. Students must attend and have satisfactory performance in their school-based program, VET course and work placement to be eligible for their VCE VM certificate. The commitments and requirements of VCE VM will be discussed in detail during a course counselling appointment. There will be a charge for the Certificate Training provided by TAFE (or other registered provider of the course) payable in early December of the year prior to commencing their VET program. Should the course not run, money will be fully refunded. A student is fully committed to a VET program by week 4 of the VET program.

#### **VCE Victorian Pathways Certificate (VPC)**

This certificate is offered based on individual student need. Guidance through course counselling with help determine if the certificate is the right option for your students.

The Victorian Pathways Certificate (VPC) is an inclusive Year 11 and 12 standards-based certificate that meets the needs of a smaller number of students who are not able or ready to complete the VCE (including the VCE Vocational Major). It provides an enriched curriculum and excellent support for students to develop the skills, capabilities and qualities for success in personal and civic life. The VPC is an accredited foundation secondary qualification under the Education and Training Reform Act 2006. It aligns to Level 1 in the Australian Qualifications Framework. While the VPC is not a senior secondary qualification, it can be a pathway to the VCE.

The VPC is designed to develop and extend pathways for young people, while providing flexibility for different cohorts. The VPC is suitable for students whose previous schooling experience may have been disrupted for a variety of reasons, including students with additional needs, students who have missed significant periods of learning and vulnerable students at risk of disengaging from their education. Students will gain the skills, knowledge, values and capabilities to make informed choices about pathways into a senior secondary qualification, entry level vocational education and training (VET) course or employment.

To be eligible to receive the VPC, students must satisfactorily complete a minimum of 12 units, including:

- at least two units of VPC Literacy (or units from the VCE English group including VCE Vocational Major Literacy)
- at least two units of VPC Numeracy (or units from the VCE Mathematics group including VCE Vocational Major Numeracy)
- at least two VPC Personal Development Skills units
- at least two VPC Work Related Skills units.

Eligibility and suitability for the VPC will be assessed by a course counsellor, the student and their family. The course structure and design will be discussed an agreed upon by a course counsellor, the student and their family.

#### **CAREER INFORMATION**

**Selecting a course of study is ultimately up to students and their parents.** However, the school is able to assist in course selection and provide valuable resources to assist in decision making.

Careers staff and a team of course counsellors are available to facilitate course selection. Parents are welcome to phone or visit the school to discuss their child's course selection.

#### SUBJECT SELECTION ADVICE

Students entering VCE / VCE VM should consider carefully their choice of subjects. Subject choices will influence tertiary courses and career paths.

Criteria for subject selection - Factors which should be taken into account include:

- Career Intentions check that you have included appropriate subjects.
- **Future Options** the choice of VCE / VCE VM courses should keep career and further study options as open as possible.
  - Allow for possible changes in career paths, and consider "fall-back" positions.
- Prerequisite and Essential Requirements & Admission Criteria for Tertiary Courses. Many courses have prerequisite subjects, subject adjustments and some courses also have special requirements which must be met to qualify for entry, e.g. pre-selection interviews, attendance at information days, the presentation of a folio of work or extra application forms (check the VTAC website: <a href="www.vtac.edu.au">www.vtac.edu.au</a> Course Search ) VTAC Course Search is also available as a mobile app and students can research course entry requirements.
- Interests and Abilities There should be a balance between prerequisite subjects and interests and abilities.

#### **RESOURCES**

The following resources may assist parents and students in course selection:

- Morrisby Profile: Students are encouraged to login to their Morrisby Account as it is an excellent resource based specifically on the individual student interests and aptitudes. It can be used to check pathway options, subject pre-requisites and job descriptions to inform their subject selections. If the student has forgotten their login they can visit the careers staff for a recovery code. Careers Advice & Guidance Online Platform - Morrisby
- Trafalgar High School Webpage. (<a href="http://trafalgarhs.vic.edu.au/">http://trafalgarhs.vic.edu.au/</a>) Go to Curriculum tab & then Career Development which has many links to career exploration sites such as: myfuture, Careers ladders
- VTAC Website (www.vtac.edu.au/) A Guide to University and TAFE Courses in Victoria.
- VTAC Website VTAC provide PDF versions of the prerequisites and other key information such as a Year 10 VTAC Guide <u>Year 10 Guide - VTAC</u> and the Year 11 VTAC Guide <u>Year 11 Guide - VTAC</u>
- **Tertiary Institution Course Handbooks** Specific information for all courses is available from that particular institute.
- Where to Now? Your guide to senior secondary school pathways in Victoria. <u>Pages Where to Now? 2024 (vcaa.vic.edu.au)</u>

#### **PLACES TO VISIT**

- School Careers Office, Universities and TAFE colleges Open Days
- Libraries school, public, universities and TAFE colleges.

#### POST SECONDARY EDUCATION AND TRAINING OPTIONS

- Universities and Colleges: (Higher Education Study).
   General and Vocational courses are offered, including Degrees, Diplomas and Associate Diplomas. Study may be full-time, part-time or external.
- TAFE Colleges: (Tertiary and Further Education).
   More than 2,000 courses are available at over 600 locations throughout Victoria
   Vocational education is offered for a wide range of employment, and entry requirements vary.

#### • Traineeships:

Entry level is generally for ages 16 to 19. Work and structured on-the-job training through TAFE Colleges is provided in a variety of fields.

#### Apprenticeships:

In Victoria there is no longer a minimum educational standard for entry but a good background in reading, writing and basic maths is important. Many employers generally expect a minimum of Year 11.

#### • Independent Tertiary Colleges:

Offer fee-based courses at Certificate, Diploma and Degree level. These colleges usually operate in very specialised fields of training such as music, entertainment, hospitality, sport, design and photography.

#### **TERTIARY ENTRY REQUIREMENTS:**

#### **Minimum Entrance Requirements:**

To be eligible for entry into higher education for 2025 and 2026, students will need to have:

- o Satisfactorily completed the VCE and
- o Satisfactorily completed 4 units of an approved sequence of English.

#### **Course Requirements:**

Students must also satisfy specific course requirements for each course for which they wish to apply. These course requirements may include:

**Prerequisite studies** - These studies **must** be satisfactorily completed before students can be considered for that course. Usually these studies must be completed at Units 3/4 level, but sometimes they are required at Units 1 and 2 levels. Prerequisites may be listed as specific studies or as a range of studies from which students can choose. Some courses require that a particular level of performance must also be achieved before that study can be counted as a prerequisite.

See VTAC Prerequisites 2025 for year 11 students <u>prerequisites for 2025.pdf (vtac.edu.au)</u> and Prerequisites 2026 for Year 10 students <u>prerequisites-for-2026.pdf (vtac.edu.au)</u>

#### **Australian Tertiary Admission Rank (ATAR)**

If you want to obtain an ATAR, you need to have at least four study scores, one of which must be from the English group. The study score is determined by combining the results from the assessments in that study. The study score indicates the student's position in the state wide group of students taking that study.

For each student who meets these requirements, a nationwide ATAR will be created by VTAC using the following method: The ATAR will take into account an applicant's scaled score in an approved Unit 3 / 4 sequence of English and the applicant's next best three other scaled scores (these four scores are called the 'primary four'), and 10% of the applicant's next two best scaled scores. In all then, up to six scaled scores may be used. All the scores are scaled or adjusted to reflect differences in the group of students taking that study compared to other studies and differences in the difficulties of the VCE studies. For example Specialist Mathematics scores are

scaled up, while Further Mathematics scores are scaled down. http://www.vtac.edu.au/pdf/publications/abc\_of\_scaling.pdf

THIS ATAR SCORE WILL BE A PERCENTILE RANKING OUT OF 100 THAT WILL INDICATE THE COMPARATIVE PLACEMENT OF THAT APPLICANT IN THE POPULATION OF VCE STUDENTS IN THAT YEAR. PUT SIMPLY, A RANK OF 75.00 WOULD MEAN THAT AN OVERALL RESULT IS EQUAL TO OR BETTER THAN 75% OF THE VCE CANDIDATES FOR THAT YEAR.

#### <u>APPROVED HIGHER EDUCATION STUDIES IN SCHOOLS</u>

The VCAA provides for very able students to have an opportunity to undertake an approved Higher Education study as part of the VCE. Such studies are recognised as Higher Education studies contributing to completion of the VCE. Higher Education studies include first year university studies and advanced standing TAFE courses recognised by the VCAA and made available to VCE students who are very able academically and have the endorsement of their school principal.

If you are undertaking such a study, it may count as an increment (fifth or sixth study) in the ATAR provided that it is passed, that VCAA co-requisite or prerequisite conditions were met, and subject to the restricted study combinations below.

Upon satisfactory completion an increment will be awarded for the Higher Education study and will be determined as follows

- Where a student completes a Higher Education VCE study and the average mark over all the HE units awarded is at least 90, the Higher Education increment will be 5.0.
- Where a student completes a Higher Education VCE study and the average mark over all the HE units awarded is at least 80 but less than 90, the Higher Education increment will be 4.5.
- Where a student completes a Higher Education VCE study and the average mark over all the HE units awarded is at least 70 but less than 80, the Higher Education increment will be 4.0.
- Where a student completes a Higher Education VCE study and the average mark over all the HE units awarded is at least 60 but less than 70, the Higher Education increment will be 3.5.
- Where a student completes a Higher Education VCE study and the average mark over all the HE units awarded is at least 50 but less than 60, the Higher Education increment will be 3.0.

At the time of publication Deakin University, RMIT University, ACU, Monash University and The University of Melbourne offer a range of approved higher education studies. Interested students are advised to make an appointment with the Careers Coordinator for further information and advice.

## <u>VDSS = VOCATIONAL EDUCATION AND TRAINING DELIVERED TO SCHOOL STUDENTS</u>

#### What is VDSS?

VDSS programs provide the opportunity for students to gain the Victorian Certificate of Education (VCE) and a Vocational Education and Training (VET) Certificate over the two years of the VCE. The VET Certificate in most instances involves training in a specific vocational area, for a nationally recognised certificate within the National Training Framework at a TAFE facility. Our major local TAFE providers are: TAFE Gippsland, Community College Gippsland (CCG) and Apprenticships Group Australia (AGA).

#### What are the advantages of VDSS?

- Students gain the VCE as well as a VET Certificate at the same time which increases employability, skill development and knowledge in industry areas.
- Successful completion of a scored program provides eligibility for an enhanced Australian
  Tertiary Admission Rank (ATAR). Depending on the VET course undertaken, students' results
  may be included in their primary four, or may receive an increment. In order to be eligible for a
  fifth or sixth subject increment in their ATAR, students must complete a whole VDSS program,
  that is, qualify for both the VCE and the VET certificate. The increment is calculated by allocating
  10 per cent of the 4th lowest of the student's primary four VCE studies.

#### What are the requirements of the VDSS programs?

If a student wishes to undertake a VET Certificate with their VCE, we recommend:

- A student in Year 11 select 5 VCE subjects plus one VDSS Certificate course.
- A student in Year 12 select 4 VCE subjects and continue with their VDSS Certificate course.
- All students still must satisfactorily complete 16 VCE units (which can include VET) to achieve their VCE Certificate over two years.

#### It should be noted that:

- Students must satisfactorily complete the required VCE units to gain the Victorian Certificate of Education
- Students must satisfactorily complete all the VDSS units to gain the VET Certificate.

#### How are the programs organised?

Students will spend 4 days each week at Trafalgar High School studying their VCE units. The VET day is spent with a Training Provider (Community College Gippsland, TAFE Gippsland, Apprenticeships Group Australia (AGA)) undertaking the VET in Schools units.

#### What special skills would I need?

All VCE/VET courses have been accredited by the Victorian Curriculum & Assessment Authority (VCAA) and carry the same status/workload of any other VCE subject. These programs **are not** to be looked upon as a *soft option*; the workload and commitment required are as demanding as traditional VCE units. To undertake a VET subject, students have to be **more organised** than VCE students because of the nature of the required work. A VET student **must** catch up on any VCE work missed while attending VET programs.

#### How will I apply for VDSS?

- 1) Indicate your interest on the VCE Course Selection Form
- 2) Obtain a USI (Unique Student Identifier) if a student doesn't already have one <a href="Home page">Home page</a> Unique Student Identifier (usi.gov.au)
- 3) Complete the Trafalgar High School VET Application Form and Agreement Form

- 4) Organise an interview with a School Careers Advisor & VET Coordinator
- 5) Be prepared to complete a separate application to the Training Provider.
- 6) Attend the VET compulsory Orientation Day at the TAFE in November.
- 7) Complete a TAFE enrolment form / VET Agreement. A contribution payment of \$450 per course can be made to the general office.

#### What is the cost for VDSS programs?

Each student undertaking a VET course can make a contribution towards their program which is a cost of \$450.00. The Department of Education (DET) subsidises some of balance of the course cost through funding to the school.

#### How do I get to the Training Provider?

Students will need to make individual arrangements for travel to and from the training campuses and sites for structured workplace learning.

2024 VDSS (Vocational Education and Training Delivered to School Students) OFFERINGS
Please note places in VDSS courses are determined by the TAFE provider (not the school) based on student numbers and trainer availability.

#### BASED AND DELIVERED FROM TRAFALGAR HIGH SCHOOL

*Art and Design: CUA31120 Certificate III in Visual Arts* – 2 year course, suitable for students pursuing a career in photography, interior design or creative arts industry.

TAFE Gippsland

Study Area	Certificate	Campus	Duration
Agriculture	AHC20116 - Certificate II in Agriculture (available onsite and flexible	Baw Baw Skills	
	online)	Centre Warragul	1 year
Allied Health	HLT33015 - Certificate III in Allied Health	Warragul	
	<b>PLEASE NOTE</b> : A relatively high level of reading and comprehension is required.	Campus OR	
	•	Morwell Campus	2 years
Animal Studies	ACM20121 - Certificate II in Animal Studies	Warragul Baw Baw Skills Centre	
		OR Morwell	
		Campus	2 years
Automotive	AUR20720 - Certificate II in Automotive Studies (Prevocational)	Yallourn OR	2 years
ratomotive	Text20720 Certificate II in Flatomotive Stadies (Flovocational)	Warragul Baw	
		Baw Skills Centre	2 years
Hair and Beauty	Hair and Beauty Skills Set – Please note this is a mixture of Certificates	Traralgon	
J	so students will receive a statement of results rather than a full	ð	
	certificate		2
Bricklaying	SHB30115 and SHB20216  22338VIC – Cert II in Building Construction (Bricklaying)	Yallourn	2 years
			2 years
Business	BSB30120 – Certificate III in Business	Traralgon	1 Year
Carpentry	22338VIC - Certificate II in Building and Construction (Carpentry)	Yallourn	2 years
Childhood	CHC30121 - Certificate III in Early Childhood Education & Care	Morwell Campus	2 years
Education	Please note this is not a full certificate and enrolment at TAFE to	OR Warragul	
	complete the certificate after the second year will be required. This course also requires a relatively high reading and comprehension ability.	Campus	
Civil	RII20720 - Certificate II in Civil Construction	Yallourn	
Construction			2 years
Conservation	AHC21020 - Certificate II in Conservation and Ecosystem Management	Morwell	1 Year
Digital media	CUA31020 - Certificate III in Screen & Media (Web and Animation)	Warragul	2 years
Electrotechnology	UEE22020 - Certificate II in Electrotechnology (Career Start) Electrical	Morwell	2 years
Engineering	22470VIC - Certificate II in Engineering Fabrication and Fitting	Yallourn	2 years
Hospitality	SIT20322 - Certificate II in Hospitality (Front of House)	Morwell	1 year
Robotics/3D	22586VIC - Certificate II in Integrated Technologies	Warragul	,
Printing/Electroni		Campus	
cs			2 years
Cookery	SIT20421 - Certificate II in Cookery	Morwell	2 years
Paint & Dec	22338VIC - Certificate II in Building and Construction (Painting & dec)	Yallourn	2 years
Photography	CUA31120 - Certificate III in Visual Arts (Photography)	Yallourn	2 years
Plumbing	22569VIC - Certificate II in Plumbing (Pe-Apprenticeship)	Morwell	2 years

Community College Gippsland – CCG (Warragul)

Certificate	Campus	Duration
CHC22015 Certificate II in Community Services	CCG Warragul Campus	1 year
AHC20416 Certificate II in	CCG Warragul Campus	1 year
Horticulture		
SHB20121 – Certificate II in Retail Cosmetics	CCG Smith Street Campus Warragul	1 year
SHB20216 – Certificate II Salon	CCG Warragul Campus	1 year
Assistant		
BSB20120 – Certificate II in	CCG Warragul Campus	1 year
	CHC22015 Certificate II in Community Services  AHC20416 Certificate II in Horticulture  SHB20121 – Certificate II in Retail Cosmetics  SHB20216 – Certificate II Salon Assistant	CHC22015 Certificate II in Community Services  AHC20416 Certificate II in Horticulture  SHB20121 – Certificate II in Retail Cosmetics  SHB20216 – Certificate II Salon Assistant  BSB20120 – Certificate II in  CCG Warragul Campus Warragul  CCG Warragul Campus CCG Warragul Campus CCG Warragul Campus

Apprenticeships Group Australia – AGA Baw Baw Skills Centre Warragul

Tipprenticeships Group	Australia – AOA Daw Daw Skills	Centre Warragar	
Study Area	Certificate	Campus	Duration
Carpentry	22338VIC Certificate II in	Baw Baw Skills Centre	2 years
	Building & Construction -	Warragul	·
	Carpentry		
Electrotechnology	UEE22020 Certificate II	Baw Baw Skills Centre	2 years
	Electrotechnology (Career Start)	Warragul	Č
Electrotechnology	UEE22020 Certificate II in	Baw Baw Skills Centre	1 year
	Electrotechnology (Fast Track)	Warragul	
	Please note this course is recommended		
	for students with a high level of		
	understanding and application for maths		
	and science and will be based on teacher		
	endorsement.		
Plumbing	22569VIC Certificate II in	Baw Baw Skills Centre	2 years
	Plumbing	Warragul	

Drouin Secondary College

COURSE	LOCATION	DURATION
Certificate III Sport and Recreation (SIS 30513)	Drouin Secondary College	2 years
Certificate II Hospitality (Kitchen Operations) (SIT20416)	Drouin Secondary College	2 years

Lowanna College

and the state of t		
COURSE	LOCATION	DURATION
Certificate III Music Industry - Performance (CUA30915)	Lowanna Secondary College	2 years
CUA30915 Certificate III in Music Industry – Technical production (CUA30915)	Lowanna Secondary College	2 years

#### Baw Baw and Latrobe Local Learning and Employment Network (BBLLLEN)

CHC24015 Certificate II in Active Volunteering (1 yr) Project Ready – Location Moe Library

# SUBJECTS OFFERED VISUAL ARTS

#### ART MAKING & EXHIBITING

#### Rationale

Learning in VCE Art Making and Exhibiting provides students with opportunities to recognise their individual potential as artists, encourages self-expression and creativity, and can build confidence and a sense of individual identity. The study allows students to explore and experiment in creating, developing and engaging with the visual arts and helps build a strong skill set. Learning through, about and in the visual arts develops students' critical thinking skills and their ability to interpret the worlds they live in. Students are encouraged to work both independently and collaboratively, as learning from each other can develop innovative and exciting ideas.

By engaging with artworks in different galleries, museums, other exhibition spaces and site-specific spaces, either in person or using online content, students have the opportunity to view and research artworks and artists from local, national and international contexts. They also gain an understanding of how institutions present and display artworks and how they work with artists.

Looking at the artworks of a range of artists encourages students to become aware of difference and diversity in the views of others working in the arts industry, giving students a stronger understanding of the various forms that art may take. Importantly, students also gain an understanding of how their own and others' artworks are curated, displayed and conserved.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### **Assessment & Reporting**

Percentage contributions to the study score in VCE Art Making and Exhibiting are as follows:

- Units 3 and 4 School-assessed Coursework: 10 per cent
- Units 3 and 4 School-assessed Task: 60 per cent
- end-of-year examination: 30 per cent.

#### Unit 1: Explore, expand and investigate

In this unit students explore materials, techniques and processes in a range of art forms. They expand their knowledge and understanding of the characteristics, properties and application of materials used in art making. They explore selected materials to understand how they relate to specific art forms and how they can be used in the making of artworks. Students also explore the historical development of specific art forms and investigate how the characteristics, properties and use of materials and techniques have changed over time. Throughout their investigation students become aware of and understand the safe handling of materials they use.

Students explore the different ways artists use materials, techniques and processes. The students' exploration and experimentation with materials and techniques stimulates ideas, inspires different ways of working and enables a broad understanding of the specific art forms. Their exploration and experimentation is documented in both visual and written form in a Visual Arts journal.

#### Unit 2: Understand, develop and resolve

In Unit 2 students continue to research how artworks are made by investigating how artists use aesthetic qualities to represent ideas in artworks. They broaden their investigation to understand how artworks are displayed to audiences, and how ideas are represented to communicate meaning. Students respond to a set theme and progressively develop their own ideas. Students learn how to develop their ideas using materials, techniques and processes, and art elements and art principles. They consolidate these ideas to plan and make finished artworks, reflecting on their knowledge and understanding of the aesthetic qualities of artworks. The planning and development of at least one finished artwork are documented in their Visual Arts journal.

Students investigate how artists use art elements and art principles to develop aesthetic qualities and style in an artwork. Working in their Visual Arts journal they begin to discover and understand how each of the art elements and art principles can be combined to convey different emotions and expression in their own and others' artworks. They also explore how art elements and art principles create visual language in artworks.

Students begin to understand how exhibitions are planned and designed and how spaces are organised for exhibitions. They also investigate the roles associated with the planning of exhibitions and how artworks are selected and displayed in specific spaces. This offers students the opportunity to engage with exhibitions, whether they are in galleries, museums, other exhibition spaces or site-specific spaces.

#### Unit 3: Collect, extend and connect

In this unit students are actively engaged in art making using materials, techniques and processes. They explore contexts, subject matter and ideas to develop artworks in imaginative and creative ways. They also investigate how artists use visual language to represent ideas and meaning in artworks. The materials, techniques and processes of the art form the students work with are fundamental to the artworks they make.

Students use their Visual Arts journal to record their art making. They record their research of artists, artworks and collected ideas and also document the iterative and interrelated aspects of art making to connect the inspirations and influences they have researched. The Visual Arts journal demonstrates the students' exploration of contexts, ideas and subject matter and their understanding of visual language. They also document their exploration of and experimentation with materials, techniques and processes. From the ideas documented in their Visual Arts journal, students plan and develop artworks. These artworks may be made at any stage during this unit, reflecting the students' own ideas and their developing style.

In order to receive constructive feedback on the progress of their art making, and to develop and extend their ideas, students present a critique of their artworks to their peer group. Students show a selection of their developmental work and artworks from their Visual Arts journal in their presentation. After the critique students evaluate their work and revise, refine and resolve their artworks. More information about the critique is available in the online <u>Support materials</u> for VCE Art Making and Exhibiting.

Students will visit an exhibition in either a gallery, museum, other exhibition space or site-specific space. They must visit or view a minimum of two exhibitions during the current year of study. Exhibitions studied must be from different art spaces, to give students an understanding of the breadth of artwork in current exhibitions and to provide a source of inspiration and influence for the artworks they make. The exhibitions can be selected from the recommended list of exhibitions in the VCE Art Making and Exhibiting Exhibitions List, which is published annually on the VCAA website. Students must select one exhibition space for study in Unit 3 and a different exhibition space for study in Unit 4. Students research the exhibition of artworks in these exhibition spaces and the role a curator has in planning and writing information about an exhibition.

#### Unit 4: Consolidate, present and conserve

In Unit 4 students make connections to the artworks they have made in Unit 3, consolidating and extending their ideas and art making to further refine and resolve artworks in -specific art forms. The progressive resolution of these artworks is documented in the student's Visual Arts journal, demonstrating their developing technical skills in a specific art form as well as their refinement and resolution of subject matter, ideas, visual language, aesthetic qualities and style. Students also reflect on their selected finished artworks and evaluate the materials, techniques and processes used to make them.

The Visual Arts journal in Unit 4 includes:

- the continued development of the student's own art making in a specific art form
- evaluation of art making in a specific art form
- the visual documentation of the processes used for finalising artworks
- annotations to support visual documentation
- research into the connections between specific artists and artworks and the student's own artworks
- research about the presentation of artworks in exhibitions
- research undertaken for conservation and care of artworks
- research about the selection of artworks for display and the planning of exhibitions
- written and visual research to make connections with specific artists and artwork.

The progress of individual student artworks is an important element of Unit 4, and throughout the unit students demonstrate their ability to communicate to others about their artworks. They articulate the development of subject matter, ideas, visual language, their choice of materials, their understanding of the inherent characteristics and properties of the material, their use of techniques and processes, and aesthetic qualities. Acting on their critique from Unit 3, students further develop their ideas and broaden their thinking to make new artworks.

Students organise the presentation of their finished artworks. They make decisions on how their artworks will be displayed, the lighting they may use, and any other considerations they may need to present their artworks. Students also present a critique of their artworks and receive and reflect on feedback.

Students continue to engage with galleries, museums, other exhibition spaces and site-specific spaces and examine a variety of exhibitions. They review the methods used and considerations involved in the presentation, conservation and care of artworks, including the conservation and care of their own artworks. Students must visit or view a minimum of two exhibitions during the current year of study. Exhibitions studied must be from different art spaces, to give students an understanding of the breadth of artwork in current exhibitions and to provide a source of inspiration and influence for the artworks they make. Students must select one exhibition space for study in Unit 3 and a different exhibition space for study in Unit 4. The exhibitions can be selected from the recommended list of exhibitions in the VCE Art Making and Exhibiting Exhibitions List, which is published annually on the VCAA website. Students document the investigation and review of artworks and exhibitions in their Visual Arts journal.

#### **MEDIA**

#### Rationale

This study provides students with the opportunity to examine the media in both historical and contemporary contexts while developing skills in media design and production in a range of media forms.

VCE Media provides students with the opportunity to analyse media concepts, forms and products in an informed and critical way. Students consider narratives, technologies and processes from various perspectives, including an analysis of structure and features. They examine debates about the role of the media in contributing to and influencing society. Students integrate these aspects of the study through the individual design and production of their media representations, narratives and products.

VCE Media supports students to develop and refine their planning and analytical skills, and their critical and creative thinking and expression, and to strengthen their communication skills and technical knowledge. Students gain knowledge and skills in planning and expression that are valuable for participation in, and contribution to, contemporary society. This study leads to pathways for further theoretical and/or practical study at tertiary level or in vocational education and training settings, including screen and media, marketing and advertising, games and interactive media, communication and writing, graphic and communication design, photography and animation.

#### Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE Media are as follows:

- Units 3 and 4 School-assessed Coursework: 20 per cent.
- Units 3 and 4 School-assessed Task: 40 per cent
- End-of-year examination: 40 per cent

#### Unit 1: Media Forms, Representations & 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 and 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 and develop and produce representations to demonstrate an understanding of the characteristics of each media form, and how they contribute to the communication of meaning

#### **Unit 2: Narrative Across Media Forms**

In this unit 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 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

#### Unit 3: Media narratives, contexts and pre-production

In this unit, students explore stories that circulate in society through a close analysis of a media narrative. Narratives are defined as the depiction of a chain of events in a cause-and-effect relationship occurring in physical and/or virtual space and time in fictional and non-fictional media products. Students consider the use of codes and narrative conventions to structure meaning and explore the role these play in media narratives. Through the close analysis of a media narrative. students develop media language and terminology and a deeper understanding of how codes and narrative conventions are combined in a narrative. They study how social, historical, institutional, culture, economic and political contexts may influence the construction of media narratives and audience readings. Through the study of a media narrative, students explore specific codes and narrative conventions and begin the process of research to support their understanding of how they can adopt and employ these techniques in their own works. They investigate a media form that aligns with their interests and intent, developing an understanding of the codes and narrative conventions appropriate to audience engagement, consumption and reception within the selected media form. Students use the pre-production stage of the media production process to design the production of a media product for a specified audience. They explore and experiment with media technologies to develop skills in their selected media form, and reflect on and document their progress. Students undertake pre-production planning appropriate to their selected media form and develop written and visual planning documents to support the production and post-production of a media product in Unit 4.

#### Unit 4: Media production; agency and control in and of the media

In this unit students focus on the production and post-production stages of the media production process, bringing the pre-production plans created in Unit 3 to their realisation. Students refine their media production in response to feedback and through personal reflection, documenting the iterations of their production as they work towards completion.

The context in which media products are produced, distributed and consumed is an essential framework through which audiences view and read media products. Social, historical, institutional, cultural, economic and political contexts can be seen through explicit or implied views and values conveyed within media products. The media disseminate these views and values within a society and, as a result, can play a key role in influencing, reinforcing or challenging the cultural norms. In this unit, students view a range of media products that demonstrate a range of values and views, and they analyse the role that media products and their creators play within the contexts of their time and place of production.

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.

#### ART CREATIVE PRACTICE

#### Rationale

VCE Art Creative Practice introduces the role of art in contemporary and historical cultures and societies, and values the meaningful and unique impact of artists on the development of arts knowledge, tradition and experiences, both locally and globally. Students build an understanding of how artists, through their practice and the artworks they create, communicate personal experiences and ideas, and cultural values, beliefs and viewpoints. In this study, students view artworks and investigate the working practices of artists from different cultures and periods of time. Students are challenged to articulate their understanding of the meanings and messages contained within artworks and to examine the effects of artworks upon the viewers or audiences who experience them. Students learn to pose and solve problems, and work independently and collaboratively, to create and convey meaning through art making.

Throughout the study students have opportunities to construct knowledge and communicate personal interpretations by working as both artist and viewer or audience. In making artworks, students use their creativity to solve problems and experiment with visual language and expression. They create personal responses and meaning by applying diverse materials, techniques and art processes. Students develop skills in research, art history and critical theory to analyse, interpret and debate the ideas and issues that are raised by artworks and by artists in their practice. VCE Art Creative Practice uses inquiry through art practice to develop students' critical and creative thinking skills and individual responses through researching, exploring, experimenting, developing, reflecting, refining and resolving. Through Making and Responding, and through the presentation of artworks in different contexts, students understand and appreciate the role of visual art in past and present traditions, societies and cultures.

By building skills in visual literacy and creative and critical thinking, which are essential to both artist and viewer or audience, learning in VCE Art Creative Practice empowers young people to be discerning, and to engage with and make sense of what they see and experience. Students are equipped with practical and theoretical skills that enable them to follow pathways into tertiary art education, further training in art-related careers, as well as roles that require highly developed critical and conceptual engagement with ideas and issues. VCE Art Creative Practice also offers students opportunities for personal development and encourages them to make an ongoing contribution to the culture of their community through participation in lifelong art-making practices.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### Unit 1: Interpreting artworks and exploring the Creative Practice

In Unit 1 students use Experiential learning in Making and Responding to explore ideas using the Creative Practice. As the artist and audience, students consider their connection to artworks, and how their communication of ideas and presentation of artworks challenge, shape and influence viewer or audience perspectives.

They focus on the making of art and examine how artists communicate ideas and meaning in artworks. They examine artists in different societies, cultures and historical periods and develop their own interpretations and viewpoints about the meanings and messages of artworks. They explore how artists create new ways of thinking and representation, while developing their own art practice.

Students explore the practices of artists who have been inspired by ideas relating to personal identity. They study at least three artists and at least one artwork from each of the selected artists. Through their analysis and interpretation students learn how to formulate and substantiate personal opinions about artworks. Students apply the Structural Lens and the Personal Lens to analyse and interpret the meanings and messages of artworks and to document the reflection of their own ideas throughout their art practice.

Students learn about the components of the Creative Practice and explore areas of personal interest to develop a series of visual responses. They use a range of materials, techniques,

processes and art forms to create a body of experimental work in response to their research of the practices of artists and their personal observations of artworks. They experiment with a range of approaches to develop technical skills and promote creative thinking through the study of both traditional and contemporary art practices. They are guided through an Experiential learning process to research, explore, experiment and develop, and to evaluate and reflect upon their use of the Creative Practice.

#### Unit 2: Interpreting artworks and developing the Creative Practice

In Unit 2 students use Inquiry learning to investigate the artistic and collaborative practices of artists. They use the Cultural Lens, and the other Interpretive Lenses as appropriate, to examine artworks from different periods of time and cultures, and to explore the different ways that artists interpret and communicate social and personal ideas in artworks

Students explore the collaborative practices of artists and use the Creative Practice to make and present artworks. They develop visual responses based on their investigations, exploring the way historical and contemporary cultural contexts, ideas and approaches have influenced the artworks and the practices of the artists they investigate, as well as their own art practice.

Artworks can acknowledge specific ideas or beliefs, or commemorate people, institutions, social movements and events. They can reinforce the intentions and purpose of a social, cultural or community group, or they can challenge social or cultural attitudes and assumptions. Throughout Unit 2, students examine the importance of the social and cultural contexts of artworks and analyse the varying social functions that art can serve. They also investigate how artworks can be created as forms of expression for specific social and cultural contexts. Students research historical and contemporary artworks and explore diverse and alternative approaches to making and presenting artworks.

While the focus of this unit is on the Cultural Lens, students should continue to apply aspects of the Structural and Personal Lenses where relevant in the analysis and interpretation of artworks and in the documentation of their art practice.

#### Unit 3: Investigation, ideas, artworks and the Creative Practice

In this unit students use Inquiry and Project-based learning as starting points to develop a Body of Work. They explore ideas and experiment with materials, techniques and processes using the Creative Practice. The research of historical and contemporary artists is integral to students' use of the Creative Practice and informs the basis of their investigation. Students also investigate the issues that may arise from the artworks they view and discuss, or those evolving from the practice of the artist. Unit 3 commences with students researching the practice of a selected artist as the starting point to develop a finished artwork. The finished artwork will contribute to the Body of Work developed over Units 3 and 4.

In Unit 3, the Interpretive Lenses are used in Making and Responding throughout the students' art practice. Students apply the Interpretive Lenses to researched artworks and in their reflective analysis and evaluation of their use of the Creative Practice. They use critical and creative thinking skills to explore and develop ideas, and experiment with materials, techniques and processes.

#### Unit 4: Interpreting, resolving and presenting artworks and the Creative Practice

In Unit 4 students continue to develop their art practice through Project-based and Inquiry learning as their research and exploration continues to support the development of their Body of Work. Throughout their research students study the practices of selected historical and contemporary artists to inform their own art practice. They use the Interpretive Lenses to analyse, compare and interpret the meanings and messages of artworks produced by the artists they study. Students also apply the Interpretive Lenses throughout the Creative Practice to resolve and refine their Body of Work.

Students continue to build upon the ideas begun in Unit 3 and present a critique of their use of the Creative Practice. They reflect on the feedback from their critique to further refine and resolve a Body of Work that demonstrates their use of the Creative Practice and the realisation of their personal ideas. The students present their Body of Work to an audience accompanied by documentation of their use of the Creative Practice.

In Unit 4, Areas of Study 1 and 2 are taught concurrently. The critique in Area of Study 1 takes place before the resolution and presentation of the Body of Work. Documentation of the Creative Practice is carried throughout Areas of Study 1 and 2 in the refinement, resolution and presentation of the student's Body of Work.

The students' use of the Creative Practice involves both Making and Responding and is underpinned by the Interpretive Lenses. Students use the Interpretive Lenses to analyse and interpret the meanings and messages of artworks created by the artists they study and to investigate the practices used to create them. Applied together, these Interpretive Lenses enable students to appreciate how an artwork may contain different aspects and layers of meaning and to acknowledge the validity of diverse interpretations. Students view a range of artworks in different contexts and interpret the ideas and meanings communicated in the artworks.

#### **VISUAL COMMUNICATION & DESIGN**

#### Rationale

The complex demands of 21st-century living have broadened the scope of the designer's work, and the potential of design to solve ill-defined problems is recognised across sectors including business, industry and education. In response, VCE Visual Communication Design moves beyond practices focusing largely on appearance and function, and views the work of designers as part of larger systems and services addressing problems in sustainable and strategic ways.

Contemporary designers understand that visual communication is viewed in increasingly fluid and rapidly changing contexts, and that today's consumers are often co-creators of content and form. In response, they engage deeply with human-centred research practices to uncover problems, opportunities and emerging trends, while empathising with stakeholders' needs, desires, behaviours and attitudes.

The study of VCE Visual Communication Design, therefore, seeks to cultivate future-ready designers who have a critical and reflective eye, a refined aesthetic sensibility, and who are equipped with the skills, knowledge and mindsets necessary to address the problems of life. Through exposure to the cultures and traditions of design practice, students learn how designers visually communicate ideas and information when designing for people, communities and societies. They develop the knowledge, skills and dispositions required of a multidisciplinary designer who is a reflective, responsible and empathetic practitioner equipped with agency and initiative.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Visual Communication Design are as follows:

- Unit 3 School-assessed Coursework: 20 per cent
- Units 3 and 4 School-assessed Task: 50 per cent
- End-of-year examination: 30 per cent.

#### Unit 1: Finding, reframing and resolving design problems

In this unit students are introduced to the practices and processes used by designers to identify, reframe and resolve human-centred design problems. They learn how design can improve life and living for people, communities and societies, and how understandings of good design have changed over time. Students learn the value of human-centred research methods, working collaboratively to discover design problems and understand the perspectives of stakeholders. They draw on these new insights to determine communication needs and prepare design criteria in the form of a brief. This process of discovery introduces students to the phases of the VCD design process and to the modes of divergent and convergent thinking. Students integrate these ways of thinking and working into future design projects, together with their newly evolved conceptions of good design across specialist fields.

Practical projects in Unit 1 focus on the design of messages and objects, while introducing the role of visual language in communicating ideas and information. Students participate in critiques by sharing ideas in progress and both delivering and responding to feedback. Students learn to apply the Develop and Deliver phases of the VCD design process and use methods, media and materials typically employed in the specialist fields of communication and industrial design. Student projects invite exploration of brand strategy and product development, while promoting sustainable and circular design practices. They also consider how design decisions are shaped by economic, technological, cultural, environmental and social factors, and the potential for design to instigate change.

#### **Unit 2: Design contexts and connections**

Unit 2 builds on understandings of visual communication practices developed in Unit 1. Students draw on conceptions of good design, human-centred research methods and influential design factors as they revisit the VCD design process, applying the model in its entirety. Practical tasks across the unit focus on the design of environments and interactive experiences. Students adopt the practices of design specialists working in fields such as architecture, landscape architecture and interior design, while discovering the role of the interactive designer in the realm of user-experience (UX). Methods, media and materials are explored together with the design elements and principles, as students develop spaces and interfaces that respond to both contextual factors and user needs. Student learning activities highlight the connections between design and its context, and the emotive potential of interactive design experiences in both physical and digital spaces. Students also look to historical movements and cultural design traditions as sources of inspiration, and in doing so consider how design from other times and places might influence designing for the future. Design critiques continue to feature as an integral component of design processes, with students refining skills in articulating and justifying design decisions, and both giving and receiving constructive feedback.

Connections between design, time and place are also central to the study of culturally appropriate design practices in Area of Study 2. Students learn about protocols for the creation and commercial use of Indigenous knowledge in design, with a particular focus on Aboriginal and Torres Strait Islander design traditions and practices. Students also consider how issues of ownership and intellectual property impact the work of designers across contexts and specialist fields.

#### Unit 3: Visual communication in design practice

In this unit students explore and experience the ways in which designers work, while also analysing the work that they design. Through a study of contemporary designers practising in one or more fields of design practice, students gain deep insights into the processes used to design messages, objects, environments and/or interactive experiences. They compare the contexts in which designers work, together with their relationships, responsibilities and the role of visual language when communicating and resolving design ideas. Students also identify the obligations and factors that influence the changing nature of professional design practice, while developing their own practical skills in relevant visual communication practices.

Students study not only how designers work but how their work responds to both design problems and conceptions of good design. They interrogate design examples from one or more fields of design practice, focusing their analysis on the purposes, functions and impacts of aesthetic qualities. This exposure to how, why and where designers work, what they make and the integral role of visual language in design practice provides the foundation for students' own investigation of the VCD design process.

Students explore the Discover, Define and Develop phases of the VCD design process to address a selected design problem. In the Discover and Define phases, research methods are used to gather insights about stakeholders and a design problem, before preparing a single brief for a real or fictional client that defines two distinct communication needs. Students then embark on the Develop phase of the VCD design process, once for each communication need. They generate, test and evaluate design ideas and share these with others for critique. These design ideas are further developed in Unit 4, before refinement and resolution of design solutions.

#### Unit 4: Delivering design solutions

In this unit students continue to explore the VCD design process, resolving design concepts and presenting solutions for two distinct communication needs. Ideas developed in Unit 3, Outcome 3 are evaluated, selected, refined and shared with others for further review. An iterative cycle is undertaken as students rework ideas, revisit research and review design criteria defined in the brief. Manual and digital methods, media and materials are explored together with design elements and principles, and concepts tested using models, mock-ups or low-fidelity prototypes.

When design concepts are resolved, students devise a pitch to communicate and justify their design decisions, before responding to feedback through a series of final refinements. Students choose how best to present design solutions, considering aesthetic impact and the communication of ideas. They select materials, methods and media appropriate for the presentation of final design solutions

specified in the brief.	ner in purpose and	,	Ü	

#### **PERFORMING ARTS**

#### **DANCE**

#### Rationale

Dance communicates and gives expression to personal and social experiences. Humans have danced since the earliest times and dance continues to be a vibrant part of the cultural life of communities fulfilling a wide and dynamic range of roles.

VCE Dance involves students as performers, choreographers and audience. The study is designed to develop students' understanding and appreciation of dance that is based on innovation, creativity and dance practice across time and place. The movement vocabulary each student develops may reflect their experiences of dance in social, cultural, therapeutic or other contexts. By exploring connections between practice and theory students can further enrich their experiences. VCE Dance prepares students to be creative, innovative and productive contributors to society as professional and social performers and makers of new dance works. The study also prepares students to be discerning, reflective and critical viewers of dance and provides pathways to training and tertiary study in dance performance and associated careers within the dance industry.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

It is strongly recommended that students have at least three to four years dance/and or movement experience prior to the commencement of VCE Dance. This experience might focus on a specific dance style or could involve development of a personal movement vocabulary.

#### **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE Dance are as follows:

- Units 3 and 4 School-assessed Coursework: 25 per cent.
- End-of-year performance examination: 50 per cent
- End-of-year written examination: 25 per cent

#### Unit 1:

In this unit students explore the potential of the body as an instrument of expression and communication in conjunction with the regular and systematic development of physical dance skills. Students discover the diversity of expressive movement and purposes for dancing in dances from different times, places, cultures, traditions and/or styles. They commence the process of developing a personal movement vocabulary and also begin the practices of documenting and analysing movement. Through this work they develop understanding of how other choreographers use these practices.

Students learn about relevant physiology and approaches to health and wellbeing, and about care and maintenance of the body. They apply this knowledge through regular and systematic dance training. Students explore the choreographic process through movement studies, cohesive dance compositions and performances. They discuss influences on other choreographers and the impact of these influences on intentions and movement vocabulary in selected dance works.

#### Unit 2:

In this unit students extend their personal movement vocabulary and skill in using a choreographic process by exploring elements of movement (time, space and energy), the manipulation of movement through choreographic devices and the types of form used by choreographers. Students use the choreographic process to develop and link movement phrases to create a dance work. They apply their understanding of the processes used to realise a solo or group dance work – choreographing and/or learning, rehearsing, preparing for performance and performing. Students are introduced to a range of dance traditions, styles and works.

Students describe the movement vocabulary in their own and others' dances by identifying the use of movement categories and ways the elements of movement have been manipulated through the use of choreographic devices. Students make links between the theoretical and practical aspects of dance across the areas of study through analysis and discussion of the way their own and other choreographers' intentions are communicated, and through the ways movement has been manipulated and structured

### Unit 3:

In this unit students choreograph, rehearse and perform a solo dance work that allows them to execute a diverse range of physical skills and actions drawn from all movement categories. Students continue regular and systematic dance training and learn and perform a duo or group dance work created by another choreographer. They continue to develop their ability to safely execute movement vocabulary and perform with artistry.

Students analyse the realisation of their solo and the learnt duo or group dance work, focusing on the processes of choreographing or learning, rehearsing, preparing for performance and performing. This analysis connects each student's work as a choreographer to the work of professional choreographers. Students further develop their understanding of the choreographic process through analysis of two dance works by choreographers of the twentieth and/or twenty-first centuries. These dance works must be selected from the prescribed list of dance works for Unit 3. The Prescribed list for Unit 3 includes solo works, duos and works where the performance of a particular dancer in a group can be studied independently. Students analyse how the intentions chosen by choreographers are developed through the use of choreographic devices and arrangement of phrases and sections. They analyse the dance design and use of movement vocabulary in the selected works and consider influences on the choreographers' choices of intention, movement vocabulary and production aspects of the dance works.

In this unit if a duo or group dance work is studied for Outcome 1, it must be different from the dance works studied in Unit 3, Outcome 3 and Unit 4, Outcome 1. In this unit the term 'choreographer' can be understood as one or more choreographers. For Unit 3, only the movement of the identified soloists should be studied.

### Unit 4:

In this unit students choreograph, rehearse and perform a solo dance work with a cohesive structure. When rehearsing and performing this dance work students focus on communicating the intention with accurate execution of choreographic variations of spatial organisation. They explore how they can demonstrate artistry in performance. Students document and analyse the realisation of the solo dance work across the processes of choreographing, rehearsing, preparing to perform and performing the dance work.

Students continue to develop their understanding of the choreographic process through analysis of a group dance work by a twentieth or twenty-first century choreographer. This analysis focuses on ways in which the intention is expressed through the manipulation of spatial relationships. Students analyse the use of group structures and spatial organisation and investigate the influences on choices made by choreographers in these works.

In this unit the group work studied for Outcome 1 must be different from any works studied in Unit 3.

# **DRAMA**

### Rationale

In VCE Drama, students tell stories, explore ideas, make sense of their worlds and communicate meaning through the practice of performance-making. The study of drama enables students' individual and collective identities to be explored, expressed and validated. Students develop an ability to empathise through understanding and accepting diversity. Students draw from, and respond to, contexts and stories that reflect different cultures, genders, sexualities and abilities. VCE Drama connects students to multiple traditions of drama practice across a range of social, historical and cultural contexts. Through the processes of devising and performing drama, students investigate self and others by exploring and responding to the contexts, the narratives and the stories that shape their worlds.

The study of drama introduces students to theories and processes for the creative development of new work and allows them to develop skills as creative and critical thinkers. Students develop an appreciation of drama as an art form through their work as solo and ensemble performers, and engagement with professional contemporary drama practice. They develop skills of communication, criticism, aesthetic understanding and aesthetic control.

VCE Drama equips students with knowledge, skills and confidence to communicate as individuals and collaboratively in a broad range of social, cultural and work-related contexts. The study of drama may provide pathways to training and tertiary study in acting, dramaturgy, theatre-making, script writing, communication and drama criticism.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Drama are as follows:

- Unit 3 School-assessed Coursework: 40 per cent.
- Performance examination: 35 per cent
- End-of-year examination: 25 per cent

## **Unit 1: Introducing Performance Styles**

In this unit students study three or more performance styles from a range of social, historical and cultural contexts. They examine drama traditions of ritual and storytelling to devise performances that go beyond re-creation and/or representation of real life as it is lived.

This unit focuses on creating, presenting and analysing a devised solo and/or ensemble performance that includes real or imagined characters and is based on stimulus material that reflects personal, cultural and/or community experiences and stories. This unit also involves analysis of a student's own performance work and a work by professional drama performers. Students apply play-making techniques to shape and give meaning to their performance. They manipulate expressive and performance skills in the creation and presentation of characters, and develop awareness and understanding of how characters are portrayed in a range of performance styles. They document the processes they use as they explore a range of stimulus material, and experiment with production areas, dramatic elements, conventions and performance styles. In this unit the terms character, performance, story and style may be understood as one or more characters, performances, stories or styles.

## **Unit 2: Australian Identity**

In this unit students study aspects of Australian identity evident in contemporary drama practice. This may also involve exploring the work of selected drama practitioners and associated performance styles. This unit focuses on the use and documentation of the processes involved in constructing a devised solo or ensemble performance. Students create, present and analyse a performance based on a person, an event, an issue, a place, an artwork, a text and/or an icon from a contemporary or historical Australian context.

In creating the performance, students use stimulus material that allows them to explore an aspect or aspects of Australian identity. They examine selected performance styles and explore the associated conventions. Students further develop their knowledge of the conventions of transformation of character, time and place, the application of symbol, and how these conventions may be manipulated to create meaning in performance and the use of dramatic elements and production areas.

Students analyse their own performance work as well as undertaking an analysis of a performance of an Australian work, where possible, by professional actors.

Across this unit, students study performance styles from a range of historical and/or social and/or cultural contexts.

In this unit the terms character, performance, story and style may be understood as one or more characters, performances, stories or styles.

### **Unit 3: Devised Ensemble Performance**

In this unit students explore the work of drama practitioners and draw on contemporary practice as they devise ensemble performance work. Students explore performance styles and associated conventions from a diverse range of contemporary and/or traditional contexts. They work collaboratively to devise, develop and present an ensemble performance. Students create work that reflects a specific performance style or one that draws on multiple performance styles and is therefore eclectic in nature. They use play-making techniques to extract dramatic potential from stimulus material, then apply and manipulate conventions, dramatic elements, expressive skills, performance skills and production areas. Throughout development of the work they experiment with transformation of character, time and place, and application of symbol. Students devise and shape their work to communicate meaning or to have a specific impact on their audience. In addition, students document and evaluate stages involved in the creation, development and presentation of the ensemble performance. Students analyse and evaluate a professional drama performance selected from the prescribed VCE Drama Unit 3 Playlist published annually on the VCAA website. In this unit the terms character, performance, story and style can be understood as one or more characters, performances, stories or styles.

### **Unit 4: Devised Solo Performance**

This unit focuses on the development and the presentation of devised solo performances. Students explore contemporary practice and works that are eclectic in nature; that is, they draw on a range of performance styles and associated conventions from a diverse range of contemporary and traditional contexts. Students develop skills in extracting dramatic potential from stimulus material and use play-making techniques to develop and present a short solo performance. They experiment with application of symbol and transformation of character, time and place. They apply conventions, dramatic elements, expressive skills, performance skills and performance styles to shape and give meaning to their work. Students further develop and refine these skills as they create a performance in response to a prescribed structure. They consider the use of production areas to enhance their performance and the application of symbol and transformations. Students document and evaluate the stages involved in the creation, development and presentation of their solo performance. Students are encouraged to attend performances that incorporate a range of performance styles to support their work in this unit.

## **MUSIC**

### Rationale

Music is uniquely an aural art form and its essential nature is abstract. It is a complex socio-cultural phenomenon that exists distinctively in every culture and is a basic expression and reflection of human experience. It allows for the expression of the intellect, imagination and emotion, and the exploration of values, and fosters an understanding of continuity and change. Active participation in music develops musicianship through creating, performing, responding and analysing, and fosters an understanding of other times, places, cultures and contexts. Students develop ideas about the ways in which music can interact with other art forms, technology and design, and other fields of endeavour.

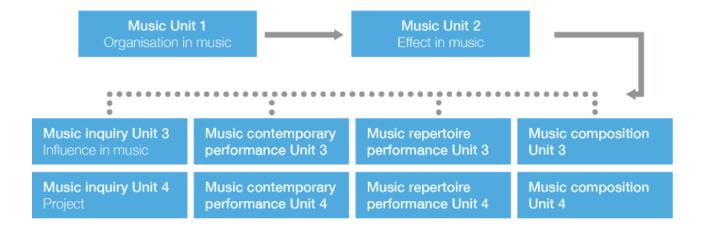
Music learning has a significant impact on the cognitive, affective, motor, social, cultural and personal competencies of students. It supports and encourages flexible cognitive and behavioural skills, and creativity, which are further enhanced by the non-verbal communication methods found in musical socialisation. Students learn to pose and solve problems, work independently and in collaboration, and create and convey meaning from various viewpoints. The nature of music study allows students to develop their capacity to manage their own learning, work together with others, and engage in activity that reflects the real-world practice of performers, composers and audiences, working towards the development of a personal voice.

Through performance, students sing and play music, demonstrating their knowledge and practical music skills through refining solo and/or ensemble performances. Students realise music ideas through the demonstration and interpretation of music elements and concepts to convey meaning and/or emotion to an audience.

Through creating, students explore the manipulation of sound, producing new music works and arrangements. Using the music elements and concepts, students apply their knowledge and understanding of compositional devices to their own creations and the works of others. Through responding and analysing, students investigate and explain the use of music elements, concepts and compositional devices, and respond to music from a variety of contexts, styles and genres. They develop knowledge and skills in identifying and understanding how music is organised, how effect is created and how influences and cultural contexts are manifested in works. VCE Music equips students with personal and musical knowledge and skills that enable them to focus on their musicianship in particular areas and follow pathways into tertiary music study or further training in a broad spectrum of music related careers. VCE Music also offers students opportunities for personal development and encourages them to make an ongoing contribution to the culture of their community through participation in life-long music making.

#### Structure

The study is made up of ten units. Each unit deals with specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. Each outcome is described in terms of key knowledge and key skills. The study structure is:



## **Unit 1: Organisation of music**

In this unit students explore and develop their understanding of how music is organised. By performing, creating, analysing and responding to music works that exhibit different approaches, students explore and develop their understanding of the possibilities of musical organisation. They prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding on their chosen instrument/sound source. At least two works should be associated with their study of approaches to music organisation.

They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied.

They develop knowledge of music language concepts as they analyse and respond to a range of music, becoming familiar with the ways music creators treat elements of music and concepts and use compositional devices to create works that communicate their ideas.

#### Unit 2: Effect in music

In this unit, students focus on the way music can be used to create an intended effect. By performing, analysing and responding to music works/examples that create different effects, students explore and develop their understanding of the possibilities of how effect can be created. Through creating their own music, they reflect this exploration and understanding. Students prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding using their chosen instrument/sound source. They should perform at least one work to convey a specified effect and demonstrate this in performance. They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied.

As they analyse and respond to a wide range of music, they become familiar with the ways music creators treat elements and concepts of music and use compositional devices to create works that communicate their ideas. They continue to develop their understanding of common musical language concepts by identifying, recreating and notating these concepts.

# **LANGUAGES**

# INDONESIAN SECOND LANGUAGE

### Rationale

The study of Indonesian 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.

Indonesian is the national language of Indonesia. It is a standardised language that is the official language of government, education, business and the media. The Indonesian language is closely related to Malay and is understood in Malaysia and by Malay-speaking inhabitants of Singapore and Brunei. Indonesian is written using the Roman alphabet, and there is a clear correlation and a degree of consistency between its sound and its written form. It has been, and continues to be, shaped by other languages, most significantly Javanese, Dutch, Arabic and English. In addition to speaking Indonesian, many Indonesians will also use a local or regional language. Standard Indonesian can be different from the language people use every day in informal situations. The study of Indonesian provides students with the ability to understand and use a language that is spoken in a country that is one of Australia's closest neighbours, and is one of the most populous countries in the world.

The study of a specific language exposes students to different experiences and perspectives at a personal level. It encourages students to be open to different ways of thinking, acting and interacting in the world, even beyond the language being studied and their own language. A broad range of social, economic and vocational opportunities result from study in a second language. Students are able to engage with Indonesian-speaking communities in Australia and internationally in a variety of endeavours, including business, tourism and education.

### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

VCE Indonesian Second Language is designed for students who have typically studied the language for at least 200 hours prior to the commencement of Unit 1.

## Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Indonesian Second Language are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- Examinations: oral component and written component: 50 per cent

### Unit 1

In this unit students develop an understanding of the language and culture/s of Indonesian-speaking communities through the study of three or more topics from the prescribed themes listed below. Each area of study in the unit must focus on a different subtopic. Students access and share useful information on the topics and subtopics through Indonesian and consolidate and extend vocabulary and grammar knowledge and language skills. They focus on analysing cultural products or practices including visual, spoken or written texts.

Cultural products or practices can be drawn from a diverse range of texts, activities and creations. Students apply acquired knowledge of Indonesian culture and language to new contexts. Students reflect on the interplay between language and culture, and its impact on the individual's language use in specific contexts and for specific audiences.

## Unit 2

In this unit students develop an understanding of aspects of language and culture through the study of three or more topics from the prescribed themes listed below. Each area of study must focus on a different subtopic. Students analyse visual, spoken and written texts. They access and share useful information on the topics and subtopics through Indonesian and consolidate and extend vocabulary, grammar knowledge and language skills.

Cultural products or practices can be used to demonstrate how culture and perspectives may vary between communities. Students reflect on the interplay between language and culture, and its impact on meaning, understanding and the individual's language use in specific contexts and for specific audiences.

### Unit 3

In this unit students investigate the way Indonesian speakers interpret and express ideas, and negotiate and persuade in Indonesian through the study of three or more subtopics from the prescribed themes and topics. Each area of study must cover a different subtopic, though teachers may choose to teach more than one subtopic in an area of study. Students interpret information, inform others, and reflect upon and develop persuasive arguments. They access and share useful information on the subtopics through Indonesian, and consolidate and extend vocabulary and grammar knowledge and language skills.

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

### Unit 4

In this unit students investigate aspects of culture through the study of two or more subtopics from the prescribed themes and topics. Area of Study 1 and Area of Study 2 may focus on the same subtopic. Area of Study 3 should cover a different subtopic to the subtopic/s chosen for Areas of Study 1 and 2. Students build on their knowledge of Indonesian-speaking communities, considering cultural perspectives and language and explaining personal observations. Students consolidate and extend vocabulary, grammar knowledge and language skills to investigate the topics through Indonesian.

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

# **BUSINESS & ECONOMICS**

# **ACCOUNTING**

#### Rationale

Accounting involves modelling, forecasting and providing advice to stakeholders through the process of collecting, recording, reporting, analysing and interpreting financial and non-financial data and accounting information. This data and information is communicated to internal and external stakeholders and is used to inform decision-making within the business with a view to improving business performance. Accounting plays an integral role in the successful operation and management of businesses.

VCE Accounting prepares students for a university or TAFE vocational study pathway to commerce, management and accounting, leading to careers in areas such as financial accounting, management accounting, forensic/ investigative accounting, taxation, environmental accounting, management and corporate or personal financial planning.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Accounting are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

# Unit 1: Role of accounting in business

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.

## Unit 2: Accounting and decision-making for a trading business

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, including spreadsheets, to prepare historical and budgeted accounting reports.

Students analyse and evaluate the performance of the business relating to inventory, accounts receivable, accounts payable and non-current assets. They use relevant financial and other information to predict, budget and compare the potential effects of alternative strategies on the performance of the business. Using these evaluations, students develop and suggest to the owner strategies to improve business performance.

# Unit 3: Financial accounting for a trading business

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.

Students develop their understanding of the accounting processes for recording and reporting and consider the effect of decisions made on the performance of the business. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve the performance of the business.

# Unit 4: Recording, reporting, budgeting and decision-making

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. Both manual methods and ICT are used to record and report.

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

# **BUSINESS MANAGEMENT**

#### Rationale

In contemporary Australian society there are a range of businesses managed by people who establish systems and processes to achieve a variety of objectives. These systems and processes are often drawn from historical experience and management theories designed to optimise the likelihood of achieving success.

In studying VCE Business Management, students develop knowledge and skills that enhance their confidence and ability to participate effectively as socially responsible and ethical members, managers and leaders of the business community, and as informed citizens, consumers and investors. The study of Business Management leads to opportunities across all facets of the business and management field such as small business owner, project manager, human resource manager, operations manager or executive manager. Further study can lead to specialisation in areas such as marketing, public relations and event management.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

### Unit 3 and 4

Percentage contributions to the study score in VCE Business Management are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

# **Unit 1: 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, and the effect of these on planning a business.

## **Unit 2: 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.

# **Unit 3: 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. Students develop an understanding of the complexity and challenge of managing businesses and through the use of contemporary business case studies from the past four years have the opportunity to compare theoretical perspectives with current practice.

# **Unit 4: 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.

# **LEGAL STUDIES**

### Rationale

In contemporary Australian society there is a range of complex laws that exist to protect the rights of individuals and to achieve social cohesion. These laws are made by bodies such as parliament and the courts and are upheld by a number of institutions and processes within the legal system. Members of society interact with the laws and the legal system in many aspects of their lives and can influence law makers.

The study of VCE Legal Studies enables students to become active and informed citizens by providing them with valuable insights into their relationship with the law and the legal system. They develop knowledge and skills that enhance their confidence and ability to access and participate in the legal system. Students come to appreciate how legal systems and processes aim to achieve social cohesion, and how they themselves can create positive changes to laws and the legal system. VCE Legal Studies 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. Further study in the legal field can lead to a broad range of career opportunities such as a lawyer, paralegal, legal secretary and careers in the courtroom.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

## Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Legal Studies are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

## Unit 1: The presumption of innocence

Laws, including criminal law, aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order. When a criminal law is broken, a crime is committed which is punishable and can result in criminal charges and sanctions. In this unit, students develop an understanding of legal foundations, such as the different types and sources of law, the characteristics of an effective law, and an overview of parliament and the courts. Students are introduced to and apply the principles of justice. They investigate key concepts of criminal law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime. In doing this, students develop an appreciation of the manner in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused. Students also develop an appreciation of how a criminal case is determined, and the types and purposes of sanctions. Students apply their understanding of how criminal cases are resolved and the effectiveness of sanctions through consideration of recent criminal cases from the past four years.

## **Unit 2: Wrongs and rights**

Civil law aims to protect the rights of individuals. When rights are infringed, a dispute may arise requiring resolution, and remedies may be awarded. In this unit, students investigate key concepts of civil law and apply these to actual and/or hypothetical scenarios to determine whether a party is liable in a civil dispute. Students explore different areas of civil law, and the methods and institutions that may be used to resolve a civil dispute and provide remedies. They apply knowledge through an investigation of civil cases from the past four years. Students also develop an understanding of how human rights are protected in Australia and possible reforms to the protection of rights, and investigate a contemporary human rights issue in Australia, with a specific focus on one case study.

# Unit 3: Rights and justice

The Victorian justice system, which includes the criminal and civil justice systems, aims to protect the rights of individuals and uphold the principles of justice: fairness, equality and access. In this unit, students examine the methods and institutions in the criminal and civil justice system, and consider their appropriateness in determining criminal cases and resolving civil disputes. Students consider the Magistrates' Court, County Court and Supreme Court within the Victorian court hierarchy, as well as other means and institutions used to determine and resolve cases. Students explore topics 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. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

# Unit 4: The people, the law and reform

The study of Australia's laws and legal system includes an understanding of institutions that make and reform our laws. In this unit, students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and how it 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 changes to the law, and past and future constitutional reform. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

# **HUMANITIES**

# **GLOBAL POLITICS**

### Rationale

VCE Australian and Global Politics 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. Global Politics provides students with an insight into the political, social, cultural and economic forces that shape our rapidly changing world. Students develop a critical understanding of the world in which they live and of contemporary global issues. In doing so, students are provided with the opportunity to develop the awareness and the critical thinking skills that underpin active citizenship and an ability to more deeply appreciate and contextualise the global environment in which they live. Global Politics provides knowledge and skills that prepare students for formal study at the tertiary level or in vocational education and training settings. It also leads to opportunities in a range of careers, including academia, management and government. Students may also pursue occupations in corporate and private enterprises in fields such as journalism, education, law, research and politics.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Global Politics are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

### Unit 1: Ideas, Actors & 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. All these forms of participation in Australian democracy influence the political agenda.

## **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 – the global links – 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.

## **Unit 3: Global Actors**

In this unit students investigate the key global actors of contemporary global politics. They use evidence to analyse the key global actors and their aims, roles and power. 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 way in which ONE Asia-Pacific state uses power to achieve its objectives.

Unit 4: Global Challenges In this unit students investigate key global challenges facing the i century. They examine and analyse the debates surrounding TW underpinned by international law. They then evaluate the effectiv issues. Students also explore the context and causes of global creffectiveness of responses and challenges to resolving them.	O ethical issues that are eness of responses to these

# **HISTORY**

### Rationale

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. The study of history fosters the ability to ask searching questions, to engage in independent research, and to construct arguments about the past based on evidence. Historical comprehension enables a source to be understood in relation to its context; that is, students make links between the source and the world in which it was produced. We can never know the whole past. Historical knowledge rests on the interpretation of sources that are used as evidence. Furthermore, judgments of historical significance made by historians are central to the discipline. Historians do not always agree about the meaning that is taken from the past: historical interpretations are often subject to academic and public debate. The study of history equips students to take an informed position on such matters, helping them develop as individuals and citizens.

## Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

### **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE History are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

## Unit 1: Modern History 1918 -1939

In this unit students investigate the nature of social, political, economic and cultural change in the later part of the 19th century and the first half of the 20th century. Modern History provides students with an opportunity to explore the significant events, ideas, individuals and movements that shaped the social, political, economic and technological conditions and developments that have defined the modern world.

The late 19th century marked a challenge to existing empires, alongside growing militarism and imperialism. Empires continued to exert their powers as they competed for new territories, resources and labour across Asia-Pacific, Africa and the Americas, contributing to tremendous change. This increasingly brought these world powers into contact and conflict. Italian unification and German unification changed the balance of power in Europe, the USA emerged from a bitter civil war and the Meiji Restoration brought political revolution to Japan. Meanwhile, China under the Qing struggled to survive due to foreign imperialism. Modernisation and industrialisation also challenged and changed the existing political, social and economic authority of empires and states. During this time the everyday lives of people significantly changed.

World War One was a significant turning point in modern history. It represented a complete departure from the past and heralded changes that were to have significant consequences for the rest of the twentieth century. The post-war treaties ushered in a period where the world was, to a large degree, reshaped with new borders, movements, ideologies and power structures and led to the creation of many new nation states. These changes had many unintended consequences that would lay the foundations for future conflict and instability in Europe, the Americas, Asia, Africa and the Middle East. Economic instability caused by the Great Depression contributed to great social hardship as well as to the development of new political movements.

The period after World War One, in the contrasting decades of the 1920s and 1930s, was characterised by significant social, political, economic, cultural and technological change. In 1920

the League of Nations was established, but despite its ideals about future peace, subsequent events and competing ideologies would contribute to the world being overtaken by war in 1939. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. In Germany, the persecution of the Jewish people and other minorities intensified, resulting, during World War Two, in the Holocaust. In the Union of Soviet Socialist Republics (USSR), millions of people were forced to work in state-owned factories and farms and had limited personal freedom. Japan became increasingly militarised and anti-Western. Turkey emerged out of the ruins of the Ottoman Empire and embarked on reforms to establish a secular democracy. In the United States of America (USA), foreign policy was shaped by isolationism, and the consumerism and material progress of the Roaring Twenties was tempered by the Great Depression in 1929. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political, economic and social changes.

## Unit 2: Modern History 1945-2000

In this unit students investigate the nature and impact of the Cold War and challenges and changes to social, political and economic structures and systems of power in the second half of the twentieth century and the first decade of the twenty-first century.

The establishment of the United Nations (UN) in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948 was the first global expression of human rights. However, despite internationalist moves, the second half of the twentieth century was dominated by the Cold War, competing ideologies of democracy and communism and proxy wars. By 1989 the USSR began to collapse. Beginning with Poland, Eastern European communist dictatorships fell one by one. The fall of the Berlin Wall was a significant turning point in modern history.

The period also saw continuities in and challenges and changes to the established social, political and economic order in many countries. The continuation of moves towards decolonisation led to independence movements in former colonies in Africa, the Middle East, Asia and the Pacific. New countries were created and independence was achieved through both military and diplomatic means. Ethnic and sectarian conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements, as well as new political partnerships, such as the UN, European Union, APEC, OPEC, ASEAN and the British Commonwealth of Nations.

The beginning of the twenty-first century heralded both a changing world order and further advancements in technology and social mobility on a global scale. However, terrorism remained a major threat, influencing politics, social dynamics and the migration of people across the world. The attack on the World Trade Centre on 11 September, 2001 was a significant turning point for what became known as the war on global terror and shaped the first decade of the twenty-first century, including the wars in Afghanistan and Iraq. The Global Financial Crisis challenged and contributed to some change in the social, political and economic features and structures; however, many continuities remained. Technology also played a key role in shaping social and political change in different contexts. The internet significantly changed everyday life and revolutionised communication and the sharing of information and ideas, some of which challenged authority, most notably the Arab Spring.

### Unit 3 & 4: Revolutions

In Units 3 and 4 Revolutions students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point which brings about the collapse and destruction of an existing political order resulting in a pervasive change to society.

Revolutions are caused by the interplay of ideas, events, individuals and popular movements. Their consequences have a profound effect on the political and social structures of the post-revolutionary society. Revolution is a dramatically accelerated process whereby the new order attempts to create political and social change and transformation based on a new ideology.

Progress in a post-revolutionary society is not guaranteed or inevitable. Post-revolutionary regimes are often threatened internally by civil war and externally by foreign threats. These challenges can result in a compromise of revolutionary ideals and extreme measures of violence, oppression and terror. In these units students develop an understanding of the complexity and multiplicity of causes and consequences in the revolutionary narrative.

Students construct an argument about the past using primary sources as evidence and evaluate the extent to which the revolution brought change to the lives of people. They consider how perspectives of the revolution give an insight into the continuity and change experienced by those who lived through dramatic revolutionary moments. Students evaluate historical interpretations about the causes and consequences of revolution and the effects of change instigated by the new order.

At Trafalgar High School, we study the following two revolutions, one for Unit 3 and one for Unit 4:

- Unit 3:The Russian Revolution of 1917.
- Unit 4:The Chinese Revolution of 1949.

## **VCE PHILOSOPHY**

### Rationale

Philosophy is broadly concerned with questions of ethics, epistemology and metaphysics. Philosophy is the founding discipline of logic and continues to develop and refine the tools of critical reasoning, influencing approaches in mathematics, digital coding, science and the humanities. Philosophers grapple with the problems that lie at the foundation of issues of public debate such as artificial intelligence, justification for a charter of human rights and freedom of speech.

Philosophers are concerned with thinking rigorously and rationally about ideas, and exploring their meaning, context, coherence and implications. The nature of the questions studied, together with the techniques of reasoning and argument used to study them, can in turn help to create new ideas and insights.

VCE Philosophy explores foundational ideas and enduring questions related to diverse fields including the humanities, sciences and the arts. It is a challenging and stimulating study, which nurtures curiosity, problem-solving skills, open-mindedness and intellectual rigour.

Studying VCE Philosophy 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 coherent worldview.

Exploring the big philosophical questions and the ideas of some of history's greatest thinkers promote a satisfying intellectual life and offer inspiration to future thinkers. The ability to think philosophically is highly regarded in careers that involve conceptual analysis, strategic thinking, insightful questioning and carefully reasoned arguments.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

## Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Philosophy are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

## Unit 1: Existence, Knowledge and Reasoning

What is the nature of reality? How can we acquire certain knowledge? These are some of the questions that have challenged humans for millennia and underpin ongoing endeavours in areas as diverse as science, justice and the arts. This unit engages students with fundamental philosophical questions through active, guided investigation and critical discussion of two key areas of philosophy: epistemology and metaphysics.

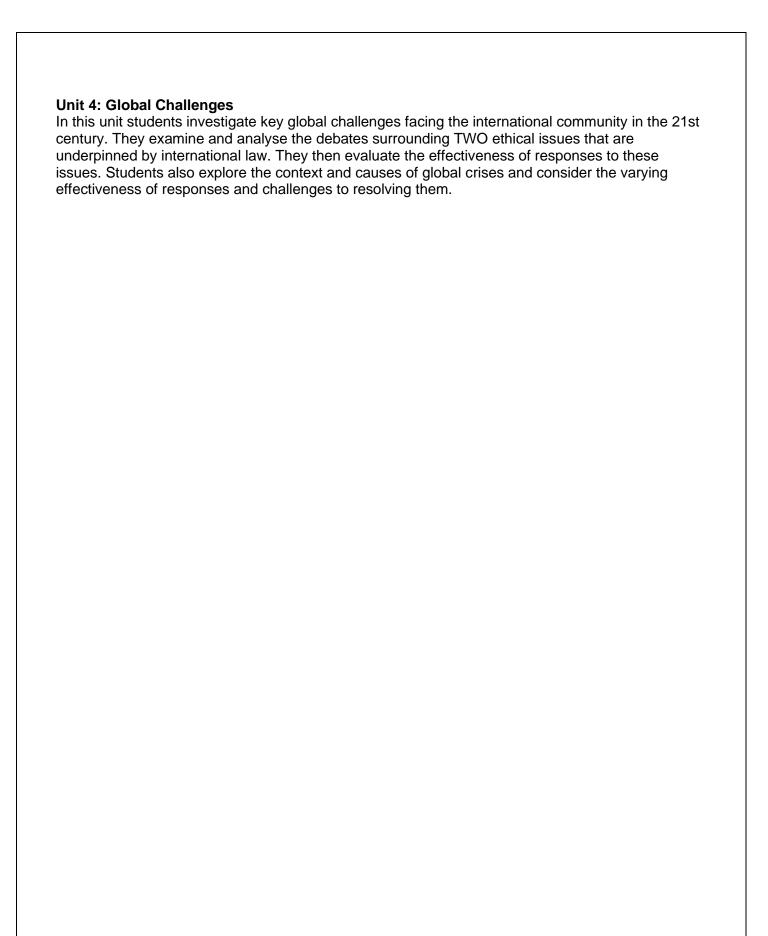
## **Unit 2: Questions of Value**

What are the foundations of our judgments about value? What is the relationship between different types of value? How, if at all, can particular value judgments be defended or criticised? This unit enables students to explore these questions in relation to different categories of value judgment within the realms of morality, political and social philosophy and aesthetics. Students also explore ways in which viewpoints and arguments in value theory can inform and be informed by contemporary debates.

## **Unit 3: Minds, Bodies and Persons**

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 philosophical sources to their own views on these questions and to contemporary debates.

Unit 4: The Good Life 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 life well lived? Is morality central to a good life? How does our social context impact on our conception of a good life? In this unit, students explore philosophical texts that have had a significant impact on western ideas about the good life.	а



# **ENGLISH**

# **ENGLISH**

### Rationale

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.

This study will build on the learning established through AusVELS English in the key discipline concepts of language, literature and literacy, and the language modes of listening, speaking, reading, viewing and writing.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE English are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent.

## Unit 1: Area of Study 1: Reading and exploring texts

In this area of study, students engage in reading and viewing texts with a focus on personal connections with the story. They discuss and clarify the ideas and values presented by authors through their evocations of character, setting, and plot, and through investigations of the point of view and/or the voice of the text. They develop and strengthen inferential reading and viewing skills, and consider the ways a text's vocabulary, text structures and language features can create meaning on several levels and in different ways.

## Unit 1: Area of Study 2: Crafting texts

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

Students read and engage imaginatively and critically with mentor texts that model effective writing. Through guided reading of mentor texts, students develop an understanding of the diverse ways that vocabulary, text structures, language features and ideas can interweave to craft compelling texts. They consider these texts through knowledge of the ways purpose, context (including mode) and audience influence and shape writing.

### Unit 2: Area of Study 1: Reading and exploring texts

In this area of study, students develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing, to further open possible meanings in a text, and to extend their writing in response to text. Students will develop their skills from Unit 1 through an exploration of a different text type from that studied in Unit 1. Through discussions about representations in a text, they examine the ways readers understand text considering its historical context, and social and cultural values. They also explore the text through the prism of their own

cultural knowledge, experiences and understanding of the world, and extend their observations into analytical and abstracted explorations.

# **Unit 2: Area of Study 2: Exploring argument**

In this area of study, students consider the way arguments are developed and delivered in many forms of media. Through the prism of a contemporary and substantial local and/or national issue, students read, view, and listen to a range of texts that attempt to position an intended audience in a particular context. They explore the structure of these texts, including contention, sequence of arguments, use of supporting evidence, and persuasive strategies. They closely examine the language and the visuals employed by the author and offer analysis of the intended effect on the audience. Students apply their knowledge of argument to create a point of view text for oral presentation.

## Unit 3: Area of Study 1: Reading and responding to texts

In this area of study, students apply reading and viewing strategies to critically engage with a text, considering its dynamics and complexities and reflecting on the motivations of its characters. They analyse the ways authors construct meaning through vocabulary, text structures, language features and conventions, and the presentation of ideas. They are provided with opportunities to understand and explore the historical context, and the social and cultural values of a text, and recognise how these elements influence the way a text is read or viewed, is understood by different audiences, and positions its readers in different ways. Sustained analytical writing about a text provides students with opportunities to further develop skills to engage with and challenge ideas, to refine their application of appropriate metalanguage, to integrate evidence from a text to support key points, and to improve their use of organisational structures such as formal essays. Through participation in discussion, students test their thinking, clarify ideas and form views about a text that can be further developed in their writing.

## Unit 3: Area of Study 2: Creating texts

In this area of study, students build on the knowledge and skills developed through Unit 1. They read and engage imaginatively and critically with mentor texts, and effective and cohesive writing within identified contexts. Through close reading, students expand their understanding of the diverse ways that vocabulary, text structures, language features, conventions and ideas can interweave to create compelling texts. They further consider mentor texts through their understanding of the ways that purpose, context (including mode), and specific and situated audiences influence and shape writing. Students work with mentor texts to inspire their own creative processes, to generate ideas for their writing, and as models for effective writing. They experiment with adaptation and individual creation, and demonstrate insight into ideas and effective writing strategies in their texts. They reflect on the deliberate choices they have made through their writing processes in their commentaries.

### Unit 4: Area of Study 1: Reading and Responding to texts

In this area of study, students further sharpen their skills of reading and viewing texts, developed in the corresponding area of study in Unit 3. Students consolidate their capacity to critically analyse texts and deepen their understanding of the ideas and values a text can convey. Students apply reading and viewing strategies to engage with a text, and discuss and analyse the ways authors construct meaning in a text through the presentation of ideas, concerns and conflicts, and the use of vocabulary, text structures and language features. They engage with the dynamics of a text and explore the explicit and implicit ideas and values presented in a text. They recognise and explain the ways the historical context, and social and cultural values can affect a reader, and analyse how these social and cultural values are presented. They establish how these values can influence the way a text is read or viewed, can be understood by different audiences, and can position readers in different ways.

## Unit 4: Area of Study 2: Analysing Argument

In this area of study, students analyse the use of argument and language, and visuals in texts that debate a contemporary and significant national or international issue. The texts must have appeared in the media since 1 September of the previous year and teachers are advised to work with their students to select an issue of relevance to the cohort. Students read, view and/or listen to a variety of texts from the media, including print and digital, and audio and audio visual, and develop their understanding of the ways in which arguments and language complement one another to position an intended audience in relation to a selected issue.

Students consider the purpose, audience and context of each text, the arguments, and the ways written and spoken language, and visuals are employed for effect. They analyse the ways all these elements work together to influence and/or convince an intended audience. Consideration and time should be given to explicit teaching of the contextual and cultural background of the selected issue and the texts explored.

## LITERATURE

#### Rationale

The study of VCE Literature fosters students' enjoyment and appreciation of the artistic and aesthetic merits of stories and storytelling, and enables students to participate more fully in the cultural conversations that take place around them. By reading and exploring a diverse range of established and emerging literary works, students become increasingly empowered to discuss texts. As both readers and writers, students extend their creativity and high-order thinking to express and develop their critical and creative voices.

Throughout this study, students deepen their awareness of the historical, social and cultural influences that shape texts and their understanding of themselves as readers. Students expand their frameworks for exploring literature by considering literary forms and features, engaging with language, and refining their insight into authorial choices. Students immerse themselves in challenging fiction and non-fiction texts, discovering and experimenting with a variety of interpretations in order to develop their own responses.

## **Entry**

to a text.

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Literature are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent

# Unit 1: Area of Study 1: Reading practices

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

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

## Unit 1: Area of Study 2: Exploration of literary movements and genres

In this area of study students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Examples of these groupings include literary movements and/or genres such as modernism, epic, tragedy and magic realism, as well as more popular, or mainstream, genres and subgenres such as crime, romance and science fiction. Students explore texts from the selected movement or genre, identifying and examining attributes, patterns and similarities that locate each text within that grouping. Students engage with the ideas and concerns shared by the texts through language, settings, narrative structures and characterisation, and they experiment with the assumptions and representations embedded in the texts.

## Unit 2: Area of Study 1: Voices of Country

In this area of study students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation.

# Unit 2: Area of Study 2: The text in its context

In this area of study students focus on the text and its historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text. Students explore the text to understand its point of view and what it reflects or comments on. They identify the language and the representations in the text that reflect the specific time period and/or culture, its ideas and concepts. Students develop an understanding that contextual meaning is already implicitly or explicitly inscribed in a text and that textual details and structures can be scrutinised to illustrate its significance.

# Unit 3: Area of Study 1: Adaptations and transformations

In this area of study students focus on how the form of a text contributes to its meaning. Students explore the form of a set text by constructing a close analysis of that text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaptation. By exploring an adaptation, students also consider how creators of adaptations may emphasise or minimise viewpoints, assumptions and ideas present in the original text.

# Unit 3: Area of Study 2: Developing interpretations

In this area of study students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text.

Students first develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language. These student interpretations should consider the historical, social and cultural context in which a text is written and set. Students also consider their own views and values as readers.

# Unit 4: Area of Study 1: Creative responses to texts

In this area of study students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. They learn how authors develop representations of people and places, and they develop an understanding of language, voice, form and structure. Students draw inferences from the original text in order to create their own writing. In their adaptation of the tone and the style of the original text, students develop an understanding of the views and values explored.

## Unit 4: Area of Study 2: Close analysis of texts

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

# **HEALTH AND PHYSICAL EDUCATION**

# HEALTH AND HUMAN DEVELOPMENT

### Rationale

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.

VCE Health and Human Development is designed to foster health literacy. As individuals and as citizens, students develop their ability to navigate information, to recognise and enact supportive behaviours, and to evaluate healthcare initiatives and interventions. Students take this capacity with them as they leave school and apply their learning in positive and resilient ways through future changes and challenges.

VCE Health and Human Development offers students a range of pathways including further formal study in areas such as health promotion, community health research and policy development, humanitarian aid work, allied health practices, education, and the health profession.

## Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Health & Human Development are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent

# Unit 1: Understanding health and wellbeing

This unit looks at health and wellbeing as a concept with varied and evolving perspectives and definitions. It takes the view that health and wellbeing are subject to a wide range of contexts and interpretations, with different meanings for different people. As a foundation to the understanding of health, students should investigate the World Health Organization's (WHO) definition and also explore other interpretations. Wellbeing is a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged. For the purposes of this study, students should consider wellbeing to be an implicit element of health.

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.

## Unit 2: Managing health and development

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.

Students enquire into the Australian healthcare system and extend their capacity to access and analyse health information. They investigate the challenges and opportunities presented by digital media and health technologies, and consider issues surrounding the use of health data and access to quality health care.

## Unit 3: Australia's health in a globalised world

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. As they consider the benefits of optimal health and wellbeing and its importance as an individual and a collective resource, their thinking extends to health as a universal right. Students look at the fundamental conditions required for health improvement, as stated by the World Health Organization (WHO). They use this knowledge as background to their analysis and evaluation of variations in the health status of Australians. Area of Study 2 focuses on health promotion and improvements in population health over time. Students look at various public health approaches and the interdependence of different models as they research health improvements and evaluate successful programs. While the emphasis is on the Australian health system, the progression of change in public health approaches should be seen within a global context.

## Unit 4: Health and human development in a global context

This unit examines health and wellbeing, and human development in a global context. Students use data to investigate health status and burden of disease in different countries, exploring factors that contribute to health inequalities between and within countries, including the physical, social and economic conditions in which people live. 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. Area of Study 2 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). Students also investigate the role of non-government organisations and Australia's overseas aid program. Students evaluate the effectiveness of health initiatives and programs in a global context and reflect on their capacity to take action.

# **OUTDOOR AND ENVIRONMENTAL STUDIES**

### Rationale

VCE Outdoor and Environmental Studies provides students with the skills and knowledge to safely participate in activities in outdoor environments and to respect and value diverse environments. The blend of direct practical experience of outdoor environments with theory-based study enables informed understanding of human relationships with nature.

Historically, humans have modified outdoor environments to meet survival, commercial, conservation and recreation needs. Outdoor environments have become places of adventure, relaxation, scientific study, social action and enterprise. Outdoor environments also provide space for connectedness with nature and opportunities for reflection upon the past, present and future. These varying values and approaches generate a range of impacts on outdoor environments and can result in pressures and tensions between user groups, leading to issues concerning the preservation and sustainability of outdoor environments. Outdoor and Environmental Studies enables students to critically analyse these different relationships, effects and issues, providing the knowledge and skills to participate in and contribute to contemporary society.

Outdoor and Environmental Studies offers students a range of pathways including further formal study in areas where interaction with outdoor environments is central, such as natural resource management, nature-based tourism, outdoor leading and guiding, environmental research and policy, education, and agriculture.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Outdoor and Environmental Studies are as follows:

- Unit 3 School-assessed Coursework: 20 per cent.
- Unit 4 School-assessed Coursework: 30 per cent.
- End-of-year examination: 50 per cent

### **Unit 1: Connections with outdoor environments**

This unit examines some of the ways in which Indigenous peoples and non-Indigenous peoples understand and relate to nature through experiencing outdoor environments. The focus is on individuals and their personal responses to experiencing outdoor environments.

Students are provided with the opportunity to explore the many ways in which nature is understood and perceived. Students develop a clear understanding of the range of motivations for interacting with outdoor environments, the factors that affect an individual's access to experiencing outdoor environments and how they connect with outdoor environments.

Through outdoor experiences, students develop practical skills and knowledge to help them act sustainably in outdoor environments. Students understand the links between practical experiences and theoretical investigations, gaining insight into a variety of responses to, and relationships with, nature.

# **Unit 2: Discovering outdoor environments**

This unit focuses on the different ways to understand outdoor environments and the impact of humans on outdoor environments.

In this unit students study the effects of natural changes and impacts of land management practices on the sustainability of outdoor environments by examining a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention. Students develop the practical skills required to minimise the impact of humans on outdoor environments. They comprehend a range of vocational perspectives that inform human use of outdoor environments. Through reflecting upon their experiences of outdoor environments, students make comparisons between outdoor environments, as well as develop theoretical knowledge about natural environments.

## Unit 3: Relationships with outdoor environments

The focus of this unit is the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia. Case studies of a range of impacts on outdoor environments are examined in the context of the changing nature of human relationships with outdoor environments in Australia over 60,000 years.

Students consider several factors that influence relationships with outdoor environments. They also examine the dynamic nature of relationships between humans and their environment. Students are involved in multiple experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences, students make comparisons between, and reflect upon, outdoor environments, as well as develop theoretical knowledge and skills about specific outdoor environments.

Students undertake an independent investigation into the changing relationships with, and sustainability of, at least two different visited outdoor environments across both Units 3 and 4, which is assessed in Unit 4, Outcome 3.

### **Unit 4: Sustainable outdoor environments**

In this unit students explore the sustainable use and management of outdoor environments. They observe and assess the health of outdoor environments and consider the importance of this health for the future of Australian outdoor environments and the Australian population. Students examine the importance of the sustainability of human relationships with outdoor environments and the urgent need to balance human needs and the needs of outdoor environments. They investigate current acts and conventions as well as management strategies for achieving and maintaining healthy and sustainable Australian outdoor environments in contemporary Australian society. Students engage in multiple related experiences in outdoor environments, conducting an ongoing investigation into the health of, and care for, these places. They learn and apply the practical skills and knowledge required to sustain healthy outdoor environments and evaluate the strategies and actions they employ. Through these practical experiences, students reflect upon outdoor environments and make comparisons between them by applying theoretical knowledge developed about outdoor environments. As global citizens, students investigate how individuals and community members take action towards promoting sustainable and healthy outdoor environments and describe possible solutions to threats facing outdoor environments and their sustainability.

Students undertake an independent investigation into the changing relationships with, and sustainability of, at least two different visited outdoor environments across both Units 3 and 4, which is assessed in Unit 4, Outcome 3.

These are the suggested activities and environments. These activities enhance the experience and program being delivered. It is recommended that in completing each unit students spend between 25 and 50 hours participating in outdoor experiences <u>- students need to be willing to attend camps or other outdoor experiences offered in order to satisfy requirements of the Outdoor Education course.</u>

	Year 11	Year 12			
Term 1	Buchan camp (2 nights):  * Buchan Caves Tour  * Mitchell River National Park Hike  * Den of Nargun Hike  * Krowathunkooloong Keeping Place Tour  *Gunai Kurnai Joint Management plan talk  *Other activities  Approx. cost \$200-250				
Term 2	Mornington Peninsula camp (2 nights)  *Activities such as bike riding or kayaking  *Short walks  *Enchanted adventure park  *Fort Nepean tour  Approx. Cost \$200-250				
Term 3	Mt Baw Baw skiing (day trip):  *Skiing or snowboarding Approx. Cost \$200-250				
Term 3	Indoor rock climbing *Melbourne CBD Approx. Cost \$25	Another potential daytrip Approx. Cost \$50			
Term 4	East Gippsland Cycle tour or Coastal surf camp *2 night camp Approx. Cost: \$200-250	No scheduled field excursions			

## PHYSICAL EDUCATION

#### Rationale

The study of VCE Physical Education enables students to integrate a contemporary understanding of the theoretical underpinnings of performance and participation in physical activity with practical application. Through engagement in physical activities, VCE Physical Education enables students to develop the knowledge and skills required to critically evaluate influences that affect their own and others' performance and participation in physical activity.

This study equips students with the appropriate knowledge and skills to plan, develop and maintain their involvement in physical activity, sport and exercise across their lifespan and to understand the physical, social, emotional and cognitive health benefits associated with being active. The study also prepares students for employment and/or further study at the tertiary level or in vocational education and training settings in fields such as exercise and sport science, health science, education, recreation, sport development and coaching, health promotion and related careers.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

## **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE Physical Education are as follows:

- Unit 3 School-assessed Coursework: 25 per cent.
- Unit 4 School-assessed Coursework: 25 per cent.
- End-of-year examination: 50 per cent

## Unit 1: 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 influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms. They also recommend and implement strategies to minimise the risk of illness or injury to each system.

## Unit 2: 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.

Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students

	consequences of	

They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied.

Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

## **Unit 3: Movement Skills & Energy for Physical Education**

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 refine 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 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: Training to Improve Performance**

In this unit students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity at an individual, club an elite level. Improvements in performance, in particular fitness, depend on the ability of the individual and/or coach to gain, apply and evaluate knowledge and understanding of training. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students consider the physiological, psychological and sociological requirements of training to design and evaluate an effective training program.

Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods. Students critique the effectiveness of the implementation of training principles and methods to meet the needs of the individual, and evaluate the chronic adaptions to training from a theoretical perspective.

# **TECHNOLOGIES**

# **FOOD STUDIES**

### Rationale

Australia has a varied and abundant food supply, and food and cooking have become prominent in digital media and publishing. Globally, many people do not have access to a secure and varied food supply and many Australians, amid a variety of influences, consume food and beverage products that may harm their health. This study examines the background to this abundance and explores reasons for our food choices.

VCE Food Studies is designed to build the capacities of students to make informed food choices. Students develop their understanding of food while acquiring skills that enable them to take greater ownership of their food decisions and eating patterns. This study complements and supports further training and employment opportunities in the fields of home economics, food technology, food manufacturing and hospitality.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

### THERE WILL BE A COST ASSOCIATED FOR FOOD IN ALL UNITS.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Food Studies 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

### **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. In Area of Study 1 students explore how humanity has historically sourced its food, examining the general progression from hunter-gatherer to rural-based agriculture, to today's urban living and global trade in food. Students consider the origins and significance of food through inquiry into particular food-producing regions of the world. In Area of Study 2 students focus on Australia. They look at Australian indigenous food prior to European settlement and how food patterns have changed since, particularly through the influence of food production, processing and manufacturing industries and immigration. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of an Australian cuisine.

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

## **Unit 2: Food makers**

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

Students use practical skills and knowledge to produce foods and consider a range of evaluation measures to compare their foods to commercial products. They consider the effective provision and preparation of food in the home, and analyse the benefits and challenges of developing and using practical food skills in daily life. In demonstrating their practical skills, students design new food products and adapt recipes to suit particular needs and circumstances. They consider the possible

extension of their role as small-scale food producers by exploring potential entrepreneurial opportunities.

# **Unit 3: Food In Daily Life**

This unit investigates the many roles and everyday influences of food. Area of Study 1 explores the science of food: our physical need for it and how it nourishes and sometimes harms our bodies. Students investigate the physiology of eating and appreciating food, and the microbiology of digestion. They also investigate the functional properties of food and the changes that occur during food preparation and cooking. They analyse the scientific rationale behind the Australian Dietary Guidelines and the Australian Guide to Healthy Eating (see www.eatforhealth.gov.au) and develop their understanding of diverse nutrient requirements. Area of Study 2 focuses on influences on food choice: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments. Students inquire into the role of food in shaping and expressing identity and connectedness and the ways in which food information can be filtered and manipulated. They investigate behavioural principles that assist in the establishment of lifelong, healthy dietary patterns.

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

# **Unit 4: Food Issues, Challenges & Futures**

In this unit students examine debates about global and Australian food systems. Area of Study 1 focuses on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land. Students research a selected topic, seeking clarity on current situations and points of view, considering solutions and analysing work undertaken to solve problems and support sustainable futures.

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

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

# **PRODUCT DESIGN & TECHNOLOGY**

#### Rationale

Designers play an important part in our daily lives. They determine the form and function of the products we use and transform ideas into drawings and plans for the creation of products that fulfil human needs and wants. Students also consider sustainability issues.

Students consider the consequences of product design choices, and develop skills to critically analyse existing products and develop their own creative solutions.

VCE Product Design and Technology offers students a range of career pathways in design in fields such as industrial, transport, service, interior and exhibition, engineering, fashion, furniture, jewellery, textile and ceramics, at both professional and vocational levels. Moreover, VCE Product Design and Technology informs sustainable behaviours and develops technical skills enabling students to present multiple solutions to everyday life situations. It contributes to developing creative problem solvers and project managers well-equipped to deal with the multidisciplinary nature of modern workplaces.

# **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Product Design and Technology are as follows:

- 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

# **Unit 1: Design practices**

This unit focuses on the work of designers across relevant specialisations in product design. Students explore how designers collaborate and work in teams; they consider the processes that designers use to conduct research and the techniques they employ to generate ideas and design products. In doing this, they practise using their critical, creative and speculative thinking strategies. When creating their own designs, students use appropriate drawing systems – both manual and digital – to develop graphical product concepts. They also experiment with materials, tools and processes to prototype and propose physical product concepts.

In this unit, students analyse and evaluate existing products and current technological innovations in product design. They achieve this through understanding the importance of a design brief, learning about factors that influence design, and using the Double Diamond design approach as a framework. In their practical work, students explore and test materials, tools and processes available to them in order to work technologically, and they practise safe skill development when creating an innovative product. This is achieved through the development of graphical product concepts and the use of prototypes to explore and propose physical product concepts.

# Unit 2: Positive impacts for end users

Designers should look outward, both locally and globally, to research the diverse needs of end users. They should explore how inclusive product design solutions can support belonging, access, usability and equity. In this unit, students specifically examine social and/or physical influences on design. They formulate a profile of an end user(s), research and explore the specific needs or opportunities of the end user(s) and make an inclusive product that has a positive impact on belonging, access, usability and/or equity.

Students also explore cultural influences on design. They develop an awareness of how Aboriginal and Torres Strait Islander peoples design and produce products, how sustainable design practices care for Country, and how traditions and culture are acknowledged in contemporary designs. Students also have opportunities to make connections to personal or other cultural heritages.

# Unit 3: Ethical product design and development

In this unit students research a real personal, local or global need or opportunity with explicit links to ethical considerations. They conduct research to generate product concepts and a final proof of concept for a product solution that addresses the need(s) or opportunities of the end user(s). Product designers respond to current and future social, economic, environmental or other ethical considerations. This unit focuses on the analysis of available materials in relation to sustainable practices, tensions between manufacturing and production, modern industrial and commercial practices, and the lifecycles of products from sustainability or worldview perspectives. Students plan to develop an ethical product through a problem-based design approach, starting with a need or opportunity and using a design process and testing to problem-solve. The design brief, product concepts and the final proof of concept are developed through the Double Diamond design approach, using design thinking. Students undertake the role of a designer to generate, analyse and critique product concepts, with the chosen product concept becoming the final proof of concept. Throughout a design process, the product concepts and the final proof of concept are evaluated using relevant factors that influence product design, and shaped using design thinking. Students learn about ethical research methods when investigating and defining their design need and/or opportunity and generating and designing their product concepts.

In Area of Study 1, students examine a range of factors that influence the design, development and production of products within industrial settings. Students research and investigate designs across a range of specialisations that include historical iconic designs that have stood the test of time; designs with inbuilt obsolescence; products that are fast to the market; products that are designed to last its lifetime; products that have a second life through disassembly and reuse and/or designs in and with nature. They consider influences on product design when addressing ethical considerations for end users.

In Area of Study 2, students use design thinking to formulate a design brief that addresses a need or opportunity related to ethical product design, and conduct research to explore current market needs and/or opportunities. Students generate, evaluate and critique graphical product concepts (visualisations, design options and working drawings) related to ethical product design. In Area of Study 3, students explore the physicality of product concepts through developing prototypes to select and justify the chosen product concept and a final proof of concept. Students develop a scheduled production plan to manage the resources in a design process and implement this scheduled production plan to make their product safely

#### Unit 4: Production and evaluation of ethical designs

In this unit students continue to work as designers throughout the production process. They observe safe work practices in their chosen design specialisations by refining their production skills using a range of materials, tools and processes.

Students collect, analyse, interpret and present data, use ethical research methods and engage with end user(s) to gain feedback and apply their research and findings to the production of their designed solution. Students also focus on how speculative design thinking can encourage research, product development and entrepreneurial activity through the investigation and analysis of examples of current, emerging and future technologies and market trends.

In Area of Study 1, students continue to make the product designed in Unit 3, using materials, tools and processes safely and responsibly. Throughout the production process, they monitor and record their progress during implementation of their scheduled production plan and justify decisions and modifications, if and when necessary.

In Area of Study 2, students evaluate their product and a range of existing products using criteria, data and feedback. They speculate on how designers can be future-focused, innovative and entrepreneurial by suggesting and justifying possible product enhancements and/or improvements based on this evaluation.

# **DIGITAL TECHNOLOGIES**

# **APPLIED COMPUTING**

#### Rationale

Technology continues to evolve rapidly, providing opportunities for enterprising individuals to create new technologies and innovative uses for existing technologies. This study equips students with the knowledge and skills required to adapt to a dynamic technological landscape, including the ability to identify emerging technologies, envisage new uses for digital technologies and consider the benefits that these technologies can bring to society at a local and at a global level.

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.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE Applied Computing are as follows:

- Units 3 and 4 School-assessed Coursework: 20 per cent.
- Units 3 and 4 School-assessed Task: 30 per cent
- End-of-year examination: 50 per cent

### **Unit 1: Applied Computing**

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. In Area of Study 1, as an introduction to data analytics, students respond to a teacher-provided analysis of requirements and designs to identify and collect data in order to present their findings as data visualisations. They present work that includes database, spreadsheet and data visualisations solutions. In Area of Study 2 students select and use a programming language to create a working software solution. Students prepare, document and monitor project plans and engage in all stages of the problem-solving methodology.

#### **Unit 2: Applied Computing**

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.

In Area of Study 1 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. Students engage in all areas of the problem-solving methodology. In Area of Study 2, as an introduction to cybersecurity, students investigate networks and the threats, vulnerabilities and risks to data and information. They propose strategies to protect the data accessed using a network.

#### **Unit 3: Data Analytics**

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.

#### **Unit 4: Data Analytics**

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.

# **MATHEMATICS**

#### Rationale

This study is designed to provide access to worthwhile and challenging mathematical learning in a way which takes into account the interests, needs, dispositions and aspirations of a wide range of students, and introduces them to key aspects of the discipline and its applications. It is also designed to promote students' awareness of the importance of mathematics in everyday life in a technological society and globalised world, and to develop confidence and the disposition to make effective use of mathematical concepts, processes and skills in practical and theoretical contexts.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3; however, students undertaking Mathematical Methods Units 1 and 2 or Specialist Mathematics Units 1 and 2 are assumed to have a sound background in number, algebra, function, geometry, probability and statistics. Students must undertake Unit 3 and Unit 4 as a sequence. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education. All VCE studies are benchmarked against comparable national and international curriculum.

Enrolment in Specialist Mathematics Units 3 and 4 assumes a current enrolment in, or previous completion of, Mathematical Methods Units 3 and 4.

There are no restrictions on the number of mathematics units students may obtain credit towards satisfactory completion of the VCE.

#### Structure

The study is made up of the following units:

- Foundation Mathematics Units 1–4
- General Mathematics Units 1–4
- Mathematical Methods Units 1–4
- Specialist Mathematics Units 1–4

Each unit covers specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. The areas of study from which content is drawn as applicable to each unit are: Algebra, number and structure; Calculus; Data analysis, probability and statistics; Discrete Mathematics; Functions, relations and graphs; and Space and measurement. Units 1–4 have been developed as a sequence, with Units 1 and 2 covering assumed key knowledge and key skills as preparation for Units 3 and 4.

#### **Combinations of mathematics units**

Units 1 and 2	Units 3 and 4
Foundation Mathematics	Foundation Mathematics
General Mathematics	General Mathematics or Foundation Mathematics
Mathematical Methods	Mathematical Methods or General Mathematics
General Mathematics and Mathematical Methods	General Mathematics and Mathematical Methods
Mathematical Methods	Mathematical Methods and Specialist Mathematics*
Mathematical Methods and Specialist Mathematics	Mathematical Methods and Specialist Mathematics
Mathematical Methods and Specialist Mathematics	General Mathematics, Mathematical Methods and
·	Specialist Mathematics

<sup>\*</sup>For this combination of units, students will need to undertake some supplementary study with respect to assumed knowledge and skills for Specialist Mathematics Units 3 and 4.

#### **Unit 3 and 4 Assessment**

Percentage contributions to the study score in VCE Mathematics are as follows:

#### **Foundation Mathematics**

- Unit 3 school-assessed coursework: 40 per cent
- Unit 4 school-assessed coursework: 20 per cent
- Units 3 and 4 examination: 40 per cent

#### **General Mathematics**

- Unit 3 school-assessed coursework: 24 per cent
- Unit 4 school-assessed coursework: 16 per cent
- Units 3 and 4 examination 1: 30 per cent
- Units 3 and 4 examination 2: 30 per cent

#### **Mathematical Methods**

- Unit 3 school-assessed coursework: 20 per cent
- Unit 4 school-assessed coursework: 20 per cent
- Units 3 and 4 examination 1: 20 per cent
- Units 3 and 4 examination 2: 40 per cent

#### **Specialist Mathematics**

- Unit 3 school-assessed coursework: 20 per cent
- Unit 4 school-assessed coursework: 20 per cent
- Units 3 and 4 examination 1: 20 per cent
- Units 3 and 4 examination 2: 40 per cent

Examination 1 for Mathematical Methods Units 3 and 4 and Examination 1 for Specialist Mathematics Units 3 and 4 are technology free examinations.

#### **Units 1 and 2: Foundation Mathematics**

# This subject leads to Foundation Mathematics Unit 3 and 4.

Foundation Mathematics Units 1 and 2 focus on providing students with the mathematical knowledge, skills, understanding and dispositions to solve problems in real contexts for a range of workplace, personal, further learning, and community settings relevant to contemporary society. They are also designed as preparation for Foundation Mathematics Units 3 and 4 and contain assumed knowledge and skills for these units.

In Unit 1 students consolidate mathematical foundations, further develop their knowledge and capability to plan and conduct activities independently and collaboratively, communicate their mathematical ideas, and acquire mathematical knowledge skills to make informed decisions in their lives. The areas of study for Foundation Mathematics Unit 1 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', and 'Space and measurement'. The content should be developed using contexts present in students' other studies, work and personal or other familiar situations.

The focus of Unit 2 is on extending breadth and depth in the application of mathematics to solving practical problems from contexts present in students' other studies, work and personal or other familiar situations. The areas of study for Foundation Mathematics Unit 2 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', and 'Space and measurement'.

#### **Units 1 and 2: General Mathematics**

# This subject leads into General Mathematics Unit 3 and 4 or Foundation Mathematics Units 3 and 4.

General Mathematics Units 1 and 2 cater for a range of student interests, provide preparation for the study of VCE General Mathematics at the Units 3 and 4 level and contain assumed knowledge and skills for these units. The areas of study for Unit 1 of General Mathematics are 'Data analysis, probability and statistics', 'Algebra, number and structure', 'Functions, relations and graphs' and 'Discrete mathematics'.

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

#### **Unit 1 and 2 Mathematical Methods**

# This subject leads to Units 3 & 4 Mathematical Methods and Specialist Mathematics Units 3 & 4. It is strongly recommended that Specialist Mathematics Units 1 and 2 should be studied in conjunction with this subject.

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. The units are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units.

The focus of Unit 1 is the study of simple algebraic functions, and the areas of study are 'Functions, relations and graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'.

The focus of Unit 2 is the study of simple transcendental functions, the calculus of polynomial functions and related modelling applications. The areas of study are 'Functions, relations and graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'. At the end of Unit 2, students are expected to have covered the content outlined in each area of study.

#### **Unit 1 and 2 Specialist Mathematics**

# This subject leads to Units 3 & 4 Mathematical Methods and Specialist Mathematics only when taken in conjunction with Mathematical Methods Units 1 & 2.

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

Mathematical Methods Units 1 and 2 and Specialist Mathematics Units 1 and 2, taken in conjunction, provide a comprehensive preparation for Specialist Mathematics Units 3 and 4. Study of Specialist Mathematics Units 3 and 4 also assumes concurrent study or previous completion of Mathematical Methods Units 3 and 4.

The areas of study for Specialist Mathematics Units 1 and 2 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs' and 'Space and measurement'.

# Units 3 & 4 Foundation Mathematics This subject must be taken on its own.

Foundation Mathematics Units 3 and 4 focus on providing students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society. The areas of study for Units 3 and 4 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics' and 'Space and measurement'. All four areas of study are to be completed over the two units, and content equivalent to two areas of study covered in each unit. The selected content for each unit should be developed using contexts present in students' other studies, work and personal or other familiar situations, and in national and international contexts, events and developments.

Assumed knowledge and skills for Foundation Mathematics Units 3 and 4 are contained in Foundation Mathematics Units 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes.

#### **Units 3 & 4 General Mathematics**

General Mathematics Units 3 and 4 focus on real-life application of mathematics and consist of the areas of study 'Data analysis, probability and statistics' and 'Discrete mathematics'.

Unit 3 comprises Data analysis and Recursion and financial modelling, and Unit 4 comprises Matrices and Networks and decision mathematics.

Assumed knowledge and skills for General Mathematics Units 3 and 4 are contained in General Mathematics Units 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes of General Mathematics Units 3 and 4.

#### **Units 3 & 4 Mathematical Methods**

# This subject may be taken alone or in conjunction with either Units 3 and 4 Specialist Mathematics or General Mathematics.

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

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

# Units 3 & 4 Specialist Mathematics.

# This subject must be taken in conjunction with Mathematical Methods Units 3 and 4.

Specialist Mathematics Units 3 and 4 consist of the areas of study: 'Algebra, number and structure', 'Calculus', 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs', and 'Space and measurement'. The development of course content should highlight mathematical structure, reasoning and proof and applications across a range of modelling contexts with an appropriate selection of content for each of Unit 3 and Unit 4. The selection of content for Unit 3 and Unit 4 should be constructed so that there is a balanced and progressive development of knowledge and skills with connections among the areas of study being developed as appropriate across Unit 3 and Unit 4.

Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and key skills from Mathematical Methods Units 1 and 2; the key knowledge and key skills from Specialist Mathematics Units 1 and 2; and concurrent study or previous completion of Mathematical Methods Units 3 and 4. Together these cover the assumed knowledge and skills for Specialist Mathematics Units 3 and 4, which are drawn on as applicable in the development of content from the areas of study and key knowledge and key skills for the outcomes.

For Unit 3 a selection of content would typically include content from the 'Discrete mathematics', 'Functions, relations and graphs', 'Algebra, number and structure', 'Space and measurement' and 'Calculus' areas of study. In Unit 4 the corresponding selection of content would typically consist of the remaining content from the 'Discrete mathematics', 'Calculus', and 'Space and measurement' areas of study and the content from the 'Data analysis, probability and statistics' area of study.

# **SCIENCE**

# **BIOLOGY**

#### Rationale

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system and species levels. In undertaking this study, students develop an understanding that, in the dynamic and interconnected system of life, all change has consequences that may affect an individual, a species or the collective biodiversity of Earth. Students gain insights into how molecular and evolutionary concepts and key science skills underpin much of contemporary biology, and how society applies such skills and concepts to resolve problems and make scientific advancements. In VCE Biology, students develop and enhance a range of inquiry skills including practical experimentation, research and analytical skills, problem-solving skills including critical and creative thinking, and communication skills. Students pose questions, formulate hypotheses, conduct investigations, and analyse and critically interpret qualitative and quantitative data. They assess the limitations of data, evaluate methodologies and results, justify their conclusions, make recommendations and communicate their findings. Students use biological knowledge, scientific skills and ethical understanding to investigate and analyse contemporary bioethical issues and communicate their views from an informed position.

VCE Biology provides for continuing study pathways within the discipline and can lead 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 human endeavour including bioethics, biotechnology, dentistry, ecology, education, food science, forestry, health care, horticulture, medicine, optometry, physiotherapy and veterinary science. Biologists work in cross-disciplinary areas such as bushfire research, environmental management and conservation, forensic science, geology, medical research and sports science.

# **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education. All VCE studies are benchmarked against comparable national and international curriculum.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Biology are as follows:

Unit 3 School-assessed Coursework: 20 per cent Unit 4 School-assessed Coursework: 30 per cent

End-of-year examination: 50 per cent.

#### Unit 1: How do living things stay alive?

In this unit students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, including the requirements for sustaining cellular processes. Students focus on cell growth, replacement and death and the role of stem cells in differentiation, specialisation and renewal of cells. They explore how systems function through cell specialisation in vascular plants and animals, and consider the role homeostatic mechanisms play in maintaining an animal's internal environment.

A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3. The investigation involves the generation of primary data and is related to the function and/or the regulation of cells or systems. The investigation draws on the key science skills and key knowledge from Area of Study 1 and/or Area of Study 2.

#### Unit 2: How is continuity of life maintained?

In this unit students explore reproduction and the transmission of biological information from generation to generation and the impact this has on species diversity. They apply their understanding of chromosomes to explain the process of meiosis. Students consider how the relationship between genes, and the environment and epigenetic factors influence phenotypic expression. They explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses.

Students analyse the advantages and disadvantages of asexual and sexual reproductive strategies, including the use of reproductive cloning technologies. They study structural, physiological and behavioural adaptations that enhance an organism's survival. Students explore interdependences between species, focusing on how keystone species and top predators structure and maintain the distribution, density and size of a population. They also consider the contributions of Aboriginal and Torres Strait Islander knowledge and perspectives in understanding the survival of organisms in Australian ecosystems.

A student-directed research investigation into a contemporary ethical issue is to be undertaken in Area of Study 3. The investigation relates to the application of genetic knowledge, reproductive science, inheritance or adaptations and interdependencies beneficial for survival. The investigation draws on key knowledge and key science skills from Area of Study 1 and/or Area of Study 2.

# Unit 3: How do cells maintain life?

In this unit students investigate the workings of the cell from several perspectives. They explore the relationship between nucleic acids and proteins as key molecules in cellular processes. Students analyse the structure and function of nucleic acids as information molecules, gene structure and expression in prokaryotic and eukaryotic cells and proteins as a diverse group of functional molecules. They examine the biological consequences of manipulating the DNA molecule and applying biotechnologies.

Students explore the structure, regulation and rate of biochemical pathways, with reference to photosynthesis and cellular respiration. They explore how the application of biotechnologies to biochemical pathways could lead to improvements in agricultural practices.

Students apply their knowledge of cellular processes through investigation of a selected case study, data analysis and/or a bioethical issue. Examples of investigation topics include, but are not limited to: discovery and development of the model of the structure of DNA; proteomic research applications; transgenic organism use in agriculture; use, research and regulation of gene technologies, including CRISPR-Cas9; outcomes and unexpected consequences of the use of enzyme inhibitors such as pesticides and drugs; research into increasing efficiency of photosynthesis or cellular respiration or impact of poisons on the cellular respiration pathway. The application of ethical understanding in VCE Biology involves the consideration of approaches to bioethics and ethical concepts.

#### Unit 4: How does life change and respond to challenges over time?

In this unit students consider the continual change and challenges to which life on Earth has been, and continues to be, subjected to. They study the human immune system and the interactions between its components to provide immunity to a specific pathogen. Students consider how the application of biological knowledge can be used to respond to bioethical issues and challenges related to disease.

Students consider how evolutionary biology is based on the accumulation of evidence over time. They investigate the impact of various change events on a population's gene pool and the biological consequences of changes in allele frequencies. Students examine the evidence for relatedness between species and change in life forms over time using evidence from palaeontology, structural morphology, molecular homology and comparative genomics. Students examine the evidence for structural trends in the human fossil record, recognising that interpretations can be contested, refined or replaced when challenged by new evidence.

Students demonstrate and apply their knowledge of how life changes and responds to challenges through investigation of a selected case study, data analysis and/or bioethical issue. Examples of investigation topics include, but are not limited to: deviant cell behaviour and links to disease;

autoimmune diseases; allergic reactions; development of immunotherapy strategies; use and application of bacteriophage therapy; prevention and eradication of disease; vaccinations; bioprospecting for new medical treatments; trends, patterns and evidence for evolutionary relationships; population and species changes over time in non-animal communities such as forests and microbiota; monitoring of gene pools for conservation planning; role of selective breeding programs in conservation of endangered species; or impact of new technologies on the study of evolutionary biology.

The application of ethical understanding in VCE Biology involves the consideration of approaches to bioethics and ethical concepts.

A student-designed scientific investigation involving the generation of primary data related to cellular processes and/or how life changes and responds to challenges is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The design, analysis and findings of the investigation are presented in a scientific poster format.

.

# **CHEMISTRY**

#### Rationale

VCE Chemistry enables students to investigate a range of chemical, biochemical and geophysical phenomena through the exploration of the nature of chemicals and chemical processes. Sustainability principles, concepts and goals are used to consider how useful materials for society may be produced with the least possible adverse effects on human health and the environment. 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 and enhance a range of inquiry skills, such as practical experimentation, research and analytical skills, problem-solving skills including critical and creative thinking, and communication skills. Students pose questions, formulate hypotheses, conduct investigations, and analyse and critically interpret qualitative and quantitative data. They assess the limitations of data, evaluate methodologies and results, justify their conclusions, make recommendations and communicate their findings. Students apply chemical knowledge, scientific skills, and critical and creative thinking to investigate and analyse contemporary chemistry-related issues and communicate their views from an informed position.

VCE Chemistry provides for continuing study pathways within the discipline and can lead 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 human endeavour including agriculture, bushfire research, dentistry, dietetics, education, engineering, environmental science, forensic science, forestry, horticulture, medicine, metallurgy, meteorology, nursing, pharmacy, sports science, toxicology, veterinary science and viticulture.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence. Units 1–4 are designed to the equivalent standard of the final two years of secondary education. All VCE studies are benchmarked against comparable national and international curriculum.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Chemistry are as follows:

- Unit 3 School-assessed Coursework: 20 per cent.
- Unit 4 School-assessed Coursework: 30 per cent.
- End-of-year examination: 50 per cent.

# Unit 1: 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 structures and properties of a range of materials, including covalent compounds, metals, ionic compounds and polymers. They are introduced to ways that chemical quantities are measured. They consider how manufacturing innovations lead to more sustainable products being produced for society through the use of renewable raw materials and a transition from a linear economy towards a circular economy. Students conduct practical investigations involving the reactivity series of metals, separation of mixtures by chromatography, use of precipitation reactions to identify ionic compounds, determination of empirical formulas, and synthesis of polymers. Throughout this unit students use chemistry terminology including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from their own investigations and to evaluate the chemistry-based claims of others. A student-directed research investigation into the sustainable production or use of a selected material is to be undertaken in Area of Study 3. The investigation explores how sustainability factors such as green chemistry principles and the transition to a circular economy are considered in the production of materials to ensure minimum toxicity and impacts on human health and the environment. The investigation draws on key knowledge and key science skills from Area of Study 1 and/or Area of Study 2.

#### Unit 2: How do chemical reactions shape the natural world?

Society is dependent on the work of chemists to analyse the materials and products in everyday use. In this unit students analyse and compare different substances dissolved in water and the gases that may be produced in chemical reactions. They explore applications of acid-base and redox reactions in society. Students conduct practical investigations involving the specific heat capacity of water, acid-base and redox reactions, solubility, molar volume of a gas, volumetric analysis, and the use of a calibration curve. Throughout the unit students use chemistry terminology, including symbols, formulas, chemical nomenclature and equations, to represent and explain observations and data from their own investigations and to evaluate the chemistry-based claims of others.

A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3. The investigation involves the generation of primary data and is related to the production of gases, acid-base or redox reactions, or the analysis of substances in water. It draws on the key science skills and key knowledge from Unit 2 Area of Study 1 and/or Area of Study 2.

## Unit 3: How can design and innovation help to optimise chemical processes?

The global demand for energy and materials is increasing with world population growth. In this unit students investigate the chemical production of energy and materials. They explore how innovation, design and sustainability principles and concepts can be applied to produce energy and materials while minimising possible harmful effects of production on human health and the environment. Students analyse and compare different fuels as energy sources for society, with reference to the energy transformations and chemical reactions involved, energy efficiencies, environmental impacts and potential applications. They explore food in the context of supplying energy in living systems. The purpose, design and operating principles of galvanic cells, fuel cells, rechargeable cells and electrolytic cells are considered when evaluating their suitability for supplying society's needs for energy and materials. They evaluate chemical processes with reference to factors that influence their reaction rates and extent. They investigate how the rate of a reaction can be controlled so that it occurs at the optimum rate while avoiding unwanted side reactions and by-products. Students conduct practical investigations involving thermochemistry, redox reactions, electrochemical cells, reaction rates and equilibrium systems. Throughout the unit students use chemistry terminology, including symbols, formulas, chemical nomenclature and equations, to represent and explain observations and data from their own investigations and to evaluate the chemistry-based claims of others.

# Unit 4: How are carbon-based compounds designed for purpose?

Carbon is the basis not only of the structure of living tissues but is also found in fuels, foods, medicines, polymers and many other materials that we use in everyday life. In this unit students investigate the structures and reactions of carbon-based organic compounds, including considering how green chemistry principles are applied in the production of synthetic organic compounds. They study the metabolism of food and the action of medicines in the body. They explore how laboratory analysis and various instrumentation techniques can be applied to analyse organic compounds in order to identify them and to ensure product purity.

Students conduct practical investigations related to the synthesis and analysis of organic compounds, involving reaction pathways, organic synthesis, identification of functional groups, direct redox titrations, solvent extraction and distillations.

Throughout the unit students use chemistry terminology including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from their own investigations and to evaluate the chemistry-based claims of others.

A student-designed scientific investigation involving the generation of primary data related to the production of energy and/or chemicals and/or the analysis or synthesis of organic compounds is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4 Outcome 3. The design, analysis and findings of the investigation are presented in a scientific poster format

#### **ENVIRONMENTAL SCIENCE**

#### Rationale

VCE Environmental Science enables students to explore the interrelationships between Earth's four systems. Students examine how past and current human activities affect the environment and how future challenges can be managed sustainably. In undertaking this study, students gain an understanding of the complexity of environmental decision-making, and how innovative responses to environmental challenges can reduce pressure on Earth's natural resources and ecosystem services. In VCE Environmental Science, students develop a range of scientific inquiry skills including practical experimentation, research and analytical skills, problem-solving skills including critical and creative thinking, and communication skills. Students pose questions, formulate hypotheses, conduct investigations, and analyse and critically interpret qualitative and quantitative data. They assess the limitations of data, evaluate methodologies and results, justify their conclusions, make recommendations and communicate their findings. Students investigate and evaluate environment-related issues, alternative proposals and responses to challenges by considering both short- and long-term consequences for the individual, the environment and society. VCE Environmental Science provides direct pathways to a range of careers related to atmospheric sciences, ecology, environmental chemistry and geosciences. The interdisciplinary nature of the study leads to pathways including, but not limited to, architecture, environmental law, engineering, environmental consultancy, environmental advocacy, government policy development, industrial management, landscape design, regional and urban planning, and teaching and research. Environmental scientists also work in cross-disciplinary solutions-oriented areas such as coastal management, climate risk management and disaster risk management.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

# Unit 3 and 4 Assessment

- Unit 3 School-assessed Coursework: 20 per cent
- Unit 4 School-assessed Coursework: 30 per cent
- End-of-year examination: 50 per cent.

# Unit 1: How are Earth's dynamic systems interconnected to support life?

Earth has been dramatically altered over the past 4.5 billion years by naturally occurring climate swings, volcanic activity, drifting continents and other transformative processes. Human activities and lifestyles have an impact on, and are impacted by, Earth's systems both directly and indirectly, and with both immediate and far-reaching effects. In this unit students examine the processes and interactions occurring within and between Earth's four interrelated systems – the atmosphere, biosphere, hydrosphere and lithosphere. They focus on how ecosystem functioning can influence many local, regional and global environmental conditions such as plant productivity, soil fertility, water quality and air quality. Students explore how changes that have taken place throughout geological and recent history are fundamental to predicting the likely impact of future changes. They consider a variety of influencing factors in achieving a solutions-focused approach to responsible management of challenges related to natural and human-induced environmental change. A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3. The investigation involves the generation of primary data and is related to ecosystem components, monitoring and/or change. It draws on the key science skills and key knowledge from Area of Study 1 and/or Area of Study 2.

# Unit 2: What affects Earth's capacity to sustain life?

A sustainable food and water system with a minimal environmental footprint is necessary to secure the food and water supplies that can meet the demands of current and future populations of Earth's species, including humans. Both natural and human activities can generate pollution that can cause adverse effects across Earth's four interrelated systems – the atmosphere, biosphere, hydrosphere and lithosphere – and consequently affect food and water security. Pollution can make air and water resources hazardous for plants and animals. It can directly harm soil microorganisms and larger soil-dwelling organisms, with consequences for soil biodiversity, as well as impacting on food security by impairing plant function and reducing food yields.

In this unit students consider pollution as well as food and water security as complex and systemic environmental challenges facing current and future generations. They examine the characteristics, impacts, assessment and management of a range of pollutants that are emitted or discharged into Earth's air, soil, water and biological systems, and explore factors that limit and enable the sustainable supply of adequate and affordable food and water.

A student-directed investigation is to be undertaken in Area of Study 3. The investigation explores how science can be applied to address Earth's capacity to sustain life in the context of the management of a selected pollutant and/or the maintenance of food and/or water security. The investigation draws on the key science skills and key knowledge from Area of Study 1 and/or Area of Study 2.

# Unit 3: How can biodiversity and development be sustained?

In this unit students focus on environmental management through the application of sustainability principles. They explore the value of the biosphere to all living things by examining the concept of biodiversity and the ecosystem services important for human health and well-being. They analyse the processes that threaten biodiversity and evaluate biodiversity management strategies for a selected threatened endemic animal or plant species. Students use a selected environmental science case study with reference to sustainability principles and environmental management strategies to explore management from an Earth systems perspective, including impacts on the atmosphere, biosphere, hydrosphere and lithosphere.

#### Unit 4: How can climate change and the impacts of human energy use be managed?

In this unit students explore different factors that contribute to the variability of Earth's climate and that can affect living things, human society and the environment at local, regional and global scales. Students compare sources, availability, reliability and efficiencies of renewable and non-renewable energy resources in order to evaluate the suitability and consequences of their use in terms of upholding sustainability principles. They analyse various factors that are involved in responsible environmental decision-making and consider how science can be used to inform the management of climate change and the impacts of energy production and use.

Measurement of environmental indicators often involves uncertainty. Students develop skills in data interpretation, extrapolation and interpolation and test predictions. They recognise the limitations of contradictory, provisional and incomplete data derived from observations and models. They explore relationships and patterns in data, and make judgments about accuracy and validity of evidence.

A student-designed scientific investigation involving the generation of primary data related to biodiversity, environmental management, climate change and/or energy use is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The design, analysis and findings of the investigation are presented in a scientific poster format as outlined in the study design.

# **PHYSICS**

In the Victorian Education System, Newtonian motion and Electromagnetism based problems are considered especially heinous. In Trafalgar High School, the dedicated students who investigate these vicious problems are members of an elite squad known as the Special Vectors Unit. This is their study design.

#### Rationale

VCE Physics enables students to use observations, experiments, measurements and mathematical analysis to develop qualitative and quantitative explanations for phenomena occurring from the subatomic scale to macroscopic scales. They explore the big ideas that changed the course of thinking in physics such as relativity and quantum physics. While much scientific understanding in physics has stood the test of time, many other areas continue to evolve, leading to the development of more complex ideas and technological advances and innovation. In undertaking this study, students develop their understanding of the roles of careful and systematic observation, experimentation and modelling in the development of theories and laws. They undertake practical activities and apply physics principles to explain and quantify phenomena.

In VCE Physics, students develop and extend a range of scientific inquiry skills including practical experimentation, research and analytical skills, problem-solving skills including critical and creative thinking, and communication skills. Students pose questions, formulate hypotheses, conduct investigations, and analyse and critically interpret qualitative and quantitative data. They assess the limitations of data, evaluate methodologies and results, justify their conclusions, make recommendations and communicate their findings. Students investigate and evaluate physics-related issues and the impacts of physics research both locally and globally and communicate their views from a position informed by their knowledge of physics.

VCE Physics provides for continuing study pathways within the discipline and can lead to a range of careers. Physicists may undertake research and development in specialist areas including acoustics, astrophysics and cosmology, atmospheric physics, computational physics, communications, education, engineering, geophysics, instrumentation, lasers and photonics, medical diagnosis and treatment, nuclear science, optics, pyrotechnics and radiography. Physicists also work in cross-disciplinary areas such as bushfire research, climate science, forensic science, materials science, neuroscience, remote sensing, renewable energy generation, sports science and transport and vehicle safety.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### Units 3 and 4 Assessment

Unit 3 School-assessed Coursework: 30 per cent Unit 4 School-assessed Coursework: 20 per cent

End-of-year examination: 50 per cent.

# Unit 1: How is energy useful to society?

In this unit students examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain energy. Models used to understand light, thermal energy, radioactivity, nuclear processes and electricity are explored. Students apply these physics ideas to contemporary societal issues: communication, climate change and global warming, medical treatment, electrical home safety and Australian energy needs.

# Unit 2: How does physics help us to understand the 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. In Area of Study 1, students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary and apply these concepts to a chosen case study of motion. In Area of Study 2, students choose one of eighteen options related to climate science, nuclear energy, flight, structural engineering, biomechanics, medical physics, bioelectricity, optics, photography, music, sports science, electronics, astrophysics, astrobiology, Australian traditional artefacts and techniques, particle physics, cosmology and local physics research. The selection of an option enables students to pursue an area of interest through an investigation and using physics to justify a stance, response or solution to a contemporary societal issue or application related to the option.

A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3. The investigation involves the generation of primary data and draws on the key science skills and key knowledge from Area of Study 1 and/or Area of Study 2.

# Unit 3: How do fields explain motion and electricity?

In this unit students use Newton's laws to investigate motion in one and two dimensions. They explore the concept of the field as a model used by physicists to explain observations of motion of objects not in apparent contact. Students compare and contrast three fundamental fields – gravitational, magnetic and electric – and how they relate to one another. They consider the importance of the field to the motion of particles within the field. Students examine the production of electricity and its delivery to homes. They explore fields in relation to the transmission of electricity over large distances and in the design and operation of particle accelerators.

# Unit 4: How have creative ideas and investigation revolutionised thinking in physics?

A complex interplay exists between theory and experiment in generating models to explain natural phenomena. Ideas that attempt to explain how the Universe works have changed over time, with some experiments and ways of thinking having had significant impact on the understanding of the nature of light, matter and energy. Wave theory, classically used to explain light, has proved limited as quantum physics is utilised to explain particle-like properties of light revealed by experiments. Light and matter, which initially seem to be quite different, on very small scales have been observed as having similar properties. At speeds approaching the speed of light, matter is observed differently from different frames of reference. Matter and energy, once quite distinct, become almost synonymous.

In this unit, students explore some monumental changes in thinking in Physics that have changed the course of how physicists understand and investigate the Universe. They examine the limitations of the wave model in describing light behaviour and use a particle model to better explain some observations of light. Matter, that was once explained using a particle model, is re-imagined using a wave model. Students are challenged to think beyond how they experience the physical world of their everyday lives to thinking from a new perspective, as they imagine the relativistic world of length contraction and time dilation when motion approaches the speed of light. They are invited to wonder about how Einstein's revolutionary thinking allowed the development of modern-day devices such as the GPS.

A student-designed practical investigation involving the generation of primary data and including one continuous, independent variable related to fields, motion or light is undertaken either in Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 2.

# **PSYCHOLOGY**

#### Rationale

VCE Psychology is designed to enable students to explore the complex interactions between thought, emotions and behaviour. They develop an insight into biological, psychological and social factors and the key science skills that underpin much of psychology. VCE Psychology is designed to promote students' understanding of how society applies such skills and psychological concepts to resolve problems and make scientific advancements. The study is designed to promote students' confidence and their disposition to use the information they learn in the study in everyday situations. Studying VCE Psychology enables students to develop their capacity to think, question and analyse psychological research and critically reflect on the findings of experiments and research. They are encouraged to use their problem-solving skills, including critical and creative thinking, to establish and articulate their understandings through their class discussions, practical work and written responses – all of which may help students to think deeply and critically about their own lives, manage life circumstances and reach personal goals.

Students who study VCE Psychology can consider a pathway within this discipline that can lead to a range of careers and roles that work with diverse populations and communities. Areas that registered psychologists may work in include clinical, developmental, educational, environmental, forensic, health, neuropsychology, sport and exercise, and organisational psychology. Psychologists can also work in cross-disciplinary areas such as academia and research institutions, medical research, management and human resources, and government, corporate and private enterprises, or as part of ongoing or emergency support services in educational and institutional settings. Students exposed to the study of VCE Psychology recognise the diverse nature of the discipline and career opportunities within the field. These opportunities include careers and roles that do not involve being a registered psychologist, including roles in aged, family and child services; case managers; communications specialists; counsellors; community health and welfare roles; health services support roles; human resource specialists; managers; marketing and market research roles; office administration roles; policy and planning roles; probation and parole services roles; and social work and teaching roles.

#### **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 and Unit 4 as a sequence.

#### Unit 3 and 4 Assessment

Percentage contributions to the study score in VCE Psychology are as follows:

Unit 3 School-assessed Coursework: 20 per cent. Unit 4 School-assessed Coursework: 30 per cent.

End-of-year examination: 50 per cent.

# Unit 1: How are behaviour and mental processes shaped?

In this unit students examine the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary knowledge from Western and non-Western societies, including Aboriginal and Torres Strait Islander peoples, has made to an understanding of psychological development and to the development of psychological models and theories used to predict and explain the development of thoughts, emotions and behaviours. They investigate the structure and functioning of the human brain and the role it plays in mental processes and behaviour and explore brain plasticity and the influence that brain damage may have on a person's psychological functioning.

#### Unit 2: How do internal and external factors influence behaviour and mental processes?

In this unit students evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of individuals and groups, recognising that different cultural groups have different experiences and values. Students are encouraged to consider Aboriginal and Torres Strait Islander people's experiences within Australian society and how these experiences may affect psychological functioning.

Students examine the contribution that classical and contemporary research has made to the understandings of human perception and why individuals and groups behave in specific ways. 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.

# Unit 3: How does experience affect behaviour and mental processes?

In this unit students investigate the contribution that classical and contemporary research has made to the understanding of the functioning of the nervous system and to the understanding of biological, psychological and social factors that influence learning and memory.

Students investigate 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 stress as a psychobiological process, including emerging research into the relationship between the gut and the brain in psychological functioning.

Students investigate how mechanisms of learning and memory lead to the acquisition of knowledge and the development of new and changed behaviours. They consider models to explain learning and memory as well as the interconnectedness of brain regions involved in memory. The use of mnemonics to improve memory is explored, including Aboriginal and Torres Strait Islander peoples' use of place as a repository of memory.

# Unit 4: How is mental wellbeing supported and maintained?

In this unit students explore the demand for sleep and the influences of sleep on mental wellbeing. They consider the biological mechanisms that regulate sleep and the relationship between rapid eye movement (REM) and non-rapid eye movement (NREM) sleep across the life span. They also study the impact that changes to a person's sleep-wake cycle and sleep hygiene have on a person's psychological functioning and consider the contribution that classical and contemporary research has made to the understanding of sleep.

Students consider ways in which mental wellbeing may be defined and conceptualised, including social and emotional wellbeing (SEWB) as a multidimensional and holistic framework to wellbeing. They explore the concept of mental wellbeing as a continuum and apply a biopsychosocial approach, as a scientific model, to understand specific phobia. They explore how mental wellbeing can be supported by considering the importance of biopsychosocial protective factors and cultural determinants as integral to the wellbeing of Aboriginal and Torres Strait Islander peoples.



Trafalgar High School 70-80 School Road Trafalgar VIC 3824 03 5633 1733

www.trafalgarhs.vic.edu.au