



Heatherton
Christian College

VCE SUBJECT HANDBOOK

2020

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WELCOME TO THE VCE AT HEATHERTON CHRISTIAN COLLEGE

Heatherton Christian College is committed to helping your child to, 'Grow in Christ, Strive for Excellence and Influence the World'.

We are working in partnership with you to provide a high quality and contemporary education for your child in a caring, Christian environment. Within this environment, we work to align ourselves with the shared Christian values held by the families in our community, and to strive to equip your child with the necessary character, attitudes, skills and knowledge to truly fulfil their Godly purpose and be people of positive difference in our modern and changing world.

Our '**Five foundations of a whole, healthy Heatherton child**' provides the framework upon which our curricular and co-curricular programs operate. These programs make up a range of "pathways" leading to our VCE and VET subject offerings, and hopefully further beyond and into their chosen course of tertiary study or post school work destination. The subjects and curriculum pathways at HCC are summarised in the 'Heatherton Curriculum Map and Curriculum Pathways Guide' that is included at the end of this opening section of the VCE handbook. We trust that this guide and VCE Information Handbook will prove useful as you and your child plan their individual pathway into and beyond their VCE.

This handbook also provides an outline of the subjects that we are looking to offer for 2020 onsite at Heatherton. These subject outlines are meant as a guide to assist with subject selection, more detailed descriptions can be located on the VCAA website (<https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/Pages/vce-study-designs.aspx>)

It is worth noting that the range of subjects that students can study can be expanded through them undertaking studies in Distance Education subjects (information can be found at www.distance.vic.edu.au), or through offsite VETiS subjects that typically take place on a Wednesday. Both of these additional options can be explored with our Careers counselling process and through the subject selection process outlined below. The full list of VCE VET subjects can also be located on the VCAA website.

We are certainly wanting to assist our students to make wise and appropriate choices, hence the work done through the Careers program in Year 9 and Year 10, and the VCE subject selection process. This subject selection process begins at the Term 2 VCE Information Night and includes subject counselling opportunities between students, parents, teachers, Head of Senior School (Bevan Hung) and our Careers teacher (Annette Betts). We encourage you to take advantage of these official opportunities or request further opportunities by making a time to meet with Bevan, Annette or myself as required.

We are looking forward to this next phase of working with your child at VCE level and we trust that God will bless their final years at Heatherton. We all have a part to play in helping them work diligently to achieve success in their studies, but to also help them know their gifts, passions and a deep sense of purpose as they seek God's leading in the next stages of their journey with Him.



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INTRODUCTION

This handbook provides helpful advice for Heatherton Christian College VCE students, parents and teachers. It will provide you with invaluable information as you proceed through the VCE, so we encourage you to take the time to read the various sections carefully.

BENEFITS OF THE VCE

The VCE is a well recognised and valuable acknowledgement of achievement for Victorian students. Successful completion of the VCE provides students with an opportunity to seek direct access to tertiary institutions as well as providing information to employers about a range of skills that students possess, including such things as an ability to cope with a range of complex tasks, meet deadlines, work independently and interdependently and to learn and be able to apply knowledge and skills to various problems.

The nature of learning required at VCE may mean that it is not always the most suitable pathway for all students as some may be better suited to a more hands on or skills and competency based pathway such as VET, VCAL or TAFE. This alternate pathway is a very valid and valuable one for students perhaps wishing to take up a trade or certificate course. Whilst we do offer some VCE VET subjects, please speak with us if you wish to explore these as an offsite study option.

OUR EXPECTATIONS OF HEATHERTON VCE STUDENTS

Heatherton Christian College has very high expectations of our students, and in particular our VCE students. We do expect the senior students to be positive role models to younger students through their work ethic, attitude to studies and respectful behavior to others and to the school environment. Being the most senior students on the campus, they have a natural leadership role within the College community, whether informally as students or in a more formal Prefect role. Hence, it is an opportune time for them to mature and develop their sense of independence, whilst also using their influence to make a positive difference to other students. In line with our 'Five foundations of a whole, healthy, Heatherton child' framework, we do want to support students to maintain a sense of wellbeing whilst focusing their priorities on their studies. This is not an easy balance to maintain but we do want to assist them in developing a positive balance between their work, their spiritual journey and their physical, social and emotional wellbeing.

VCE SUBJECT SELECTION PROCESS

All prospective Year 10, 11 and 12 students will make initial choices from the subjects on offer, selecting their subjects in order of preference on the VCE Subject Preference Form. These choices will be used to guide the decision making as to the subjects that run the following year. Once decisions have been made, a draft blocking grid is devised which shows which studies will be blocked on the timetable at the same time – this is set up to try and minimise and hopefully eliminate any clashes of required subjects. Students will then formally select their subjects from the Blocking Grid in consultation with their parents, either the Head of Senior School (Bevan Hung) our Careers Counsellor (Annette Betts) and/or myself. Please note that whilst we will do our best to meet students' preferences, this may not always be possible due to limitation of class size and the block arrangements.

Once the Blocking Grid is set up and students have made their subject selections for 2020, there will be limits to their choices should they have any changes of mind for their chosen subjects. Hence, it is important that the initial choices are well considered. The final Subject Blocking Grid will be released in early Term 3.

COMPLETING THE VCE

A detailed outline of the VCE requirements can be located via the VCE – VCAL Handbook, located through the VCAA website below:

<https://www.vcaa.vic.edu.au/administration/vce-vc-al-handbook/Pages/index.aspx>

Here is a summary of the key information found in the VCAA VCE – VCAL Handbook. 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. VCE is usually completed over two years, though it can take longer without penalty to the student. Students typically study Units 1 and 2 in their first year, and Units 3 and 4 in their second year. They can study Unit 1 or Unit 2 of a subject as standalone units. However, students must enrol in Units 3 and 4 of a study as a sequence and this sequence needs to be completed in the same year if a study score is to be calculated. Students usually study from 20 to 24 units (five or six studies) in Years 11 and 12.

Students in Year 10 at Heatherton, provided they are deemed to be at an appropriate academic level, are able to study one Unit 1 and 2 subject, leading to them completing a Unit 3 and 4 subject in Year 11. Doing this can give them the benefit of an additional Unit 3 and 4 sequence. However, students in Year 10 will require an average of a “B” level to gain automatic acceptance into a VCE subject. Exceptions to this will be made on a case by case basis.

Year 11 students will generally take 12 units of study (6 subjects), of which English Units 1 and 2 are compulsory. Year 12 students generally take 10 units (5 subjects), of which English Units 3 and 4 are compulsory.

For each student, the following minimum number of units must be satisfactorily completed:

At least 16 units, including at least 3 of English; up to 8 of these units may be VCE VET Units.

3 Sequences of Units 3 and 4 other than English; up to 2 of these may be Units 3 and 4 VCE VET Units.

Further information can be located in, “Where to now? 2020”. This website has a comprehensive guide to VCE, VCAL, VET and apprenticeships and traineeships.

<https://www.vcaa.vic.edu.au/studentguides/where-to-now/Pages/Index.aspx>

COURSES AND COURSE WORK

Each study is conducted according to the VCAA Study Designs, which are shown in detail on the VCAA website (<https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/Pages/vce-study-designs.aspx>), details are also given to students at the start of each unit of work. The program chosen by each student should be in line with the career and/or tertiary aspirations of that student and Heatherston Christian College will endeavour to cater for the needs of individual students as much as possible, though we cannot guarantee all subject desires will be met.

The workload of all VCE units is prescribed by VCAA but organised and administered by class teachers. Each VCE unit includes two to four 'Outcomes'. These are achieved on the basis of the teacher's assessment of the student's performance on the unit's assessment tasks. Therefore, satisfactory completion of any unit is determined by teachers at Heatherston Christian College based on guidelines provided by the VCAA.

It is the intention of the College that every student be given every opportunity to satisfactorily complete all work by the due date. Class teachers will work with students to ensure that due dates are mapped out fairly and that completion of work is occurring according to schedule.

ASSESSMENT AND REPORTING

Units 1 and 2 are marked by the teachers at HCC, this being done through a range of assessments. The assessments have deadlines that can only be extended in special circumstances. For Units 1 and 2 you will receive either S (Satisfactory), or N (Non-Satisfactory) plus a letter grade. However, only the S counts towards your VCE.

For Units 3 and 4 you will have grades calculated from A+ to E, UG (Ungraded), or NA (Not Assessed) for your assessment tasks, as well as an S or N. There are three graded assessments for each VCE study at Unit 3 and 4 level. All VCE VET programs with scored assessment have two graded assessments.

Depending on the study, the scored assessments may be either School based or External Assessments.

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 home. These are marked by the teacher. The VCAA checks the marks to make sure that all schools in Victoria are marking to the same standard.

External Assessments are set and marked by the VCAA. They are the same for all students taking the same VCE study and this will usually be done as an exam (this can be as a written, oral, performance or in an electronic format). The external assessments are marked by assessors who are experts in their area of study. (We are very pleased to have a number of our VCE staff who have reached the level of expertise to be used as assessors. Staff need to apply each year to be considered for this role).

The VCE Unit 3 & 4 exams are held each year in October and November – this year (2019) the English exam is on Wednesday 30 October.

AUSTRALIAN TERTIARY ADMISSION RANK (ATAR)

For those students who complete the VCE including the externally assessed exams, their VCE results are submitted to the Victorian Tertiary Admissions Centre (VTAC) who will calculate an Australian Tertiary Admission Rank (ATAR) for all students as the basis of entry into all Victorian universities and TAFE colleges.

The ATAR places each VCE student on a percentile rank and is calculated using the study score for the 'best four' studies, one of which must be English or Literature (NB certain subject combinations may be excluded for ATAR calculations).

A rank of 75.5 would mean that the student achieved an overall result equal to or better than 75.5% of all students in their age group for that year.

A full explanation of the ATAR, calculations and examples of this can be found at:

<http://www.vtac.edu.au/who/meeting-prerequisites/choosing-studies.html?highlight=WyJhdGFyIiwJ2F0YXInIlI0=>

VETiS AND THE VCE

Vocational Education and Training in Schools (VETiS) programs provide pathways to various and rewarding careers – they provide a combination of general and vocational training with experiences in business and industry.

VET subjects are delivered and assessed as part of the National Training Framework. Schools offering VET courses partner with a Registered Training Organisation (RTO) who issues a training certificate when the course is completed. This certificate will show the Units of Competency that have been undertaken and is a nationally recognised qualification. VET modules contribute towards VCE Units, with **VCE VET** subjects able to count as one of a student's top 4 VCE subjects and make a full contribution to their ATAR score.

VET programs undertaken by HCC students can be either on or off campus. These arrangements lead to a few ramifications that need careful consideration before confirming participating in a selected program.

What VET courses are offered at Heatherton?

Here at Heatherton Christian College we offer 2 main areas of VET studies.

1. We have 3 certificates on offer in Hospitality, 2 of which are VCE VET (Certificate II in Kitchen Operations and Certificate II in Hospitality – Front of House), and one that provides a block credit (Catering Operations – Patisserie, meaning there are no exams, so it can count as a 5th or 6th VCE subject but not in the top 4 subjects). These are 2-year certificate courses, often taken at Year 10 and 11, but can also be taken over Year 11 and 12. There are additional costs of around \$500 for these courses.
2. We also offer Gravitare (Certificate III in Christian Ministry and Theology) which is also a non-examined subject. The advantage of this subject is that it counts as a 5th subject by counting as 10% of the average of the top 4 subjects. Gravitare is a unique VET subject in that it runs as a one-year subject, more regularly taken at Year 11, but also can be taken at Year 12. There is a cost of around \$1800 for this course.

Students may also access other courses at an offsite provider, such as a TAFE college or another school.

Positives of VET programs:

1. Students are able to choose a very specific vocational program to supplement and complement their VCE studies.
2. VET can add to the skills learned in related VCE subjects.
3. The programs are very practical and will involve a high degree of 'industry training'.
4. The programs give students an opportunity to find out about a specific vocation and identify its potential for them.
5. If going off campus for their course, students have an opportunity to experience different educational surroundings.
6. In many cases it gives students another opportunity to pursue a passion.
7. The programs are accredited TAFE level qualifications that can provide pathways into further TAFE options; in some cases, with credits.
8. Evidence suggests these certificates assist students to gain employment in related vocational industries.
9. VET is accredited in the VCE.
10. Very often students who undertake these programs complete them very successfully.

Negatives of VET programs (particularly offsite programs):

1. Students need to demonstrate that they are capable of undertaking a VET program with their VCE. They need to demonstrate that they can manage the expectations of VCE while doing VET.
2. They need to demonstrate that the selected program has a future vocational pathway.
3. Some students may be offered a place in the program by the provider. The provider will determine eligibility and prerequisite requirements. For example; age, subjects completed and subjects required.
4. For offsite VET subjects, the RTO determines the location, day and times that students will undertake the course.
5. Students doing offsite VET subjects, will miss some school and may involve them missing out on school activities and lessons. Students and families will also be responsible for them making their way to the VET provider.
6. Students need to be able to manage the school requirements, catch up missed class work and use their study lessons appropriately.
7. VET programs incur a cost in addition to school fees, which can be quite high in some cases. Providers bill the school, who will then bill the family this amount.
8. If a student withdraws from a VET program after the application process is complete the cost of that program will still be the responsibility of the family.
9. Failure to complete VET will be treated like any VCE subject; students will receive an N grade.

USEFUL GLOSSARY OF TERMS

VCE:	Victorian Certificate of Education	VTAC:	Victorian Tertiary Admissions Centre
VCAA:	Victorian Curriculum Assessment Authority	ATAR:	Australian Tertiary Admission Rank
VET:	Vocational Education and Training	GAT:	General Achievement Test
VASS:	VCE Administrative Software System	UG:	Ungraded
SAC:	School Assessed Coursework	S:	Satisfactory
SAT:	School Assessed Task	N:	Not Satisfactory
		NA:	Not Assessed

**HEATHERTON CHRISTIAN COLLEGE SECONDARY SCHOOL
2020 CURRICULUM PATHWAYS AND CURRICULUM MAP**

Curriculum Pathway	Year 7 & 8 Subject	Year 9 & 10 Subject	VCE/VCE VET Subject
Languages	-English	→ -English	→ -English
	-French	→ -French	→ -French
Humanities & Business / Legal	-Humanities <i>Business & Entrepreneurial studies</i>	→ -Humanities (History/Geography) -Law & Parliament (2021) -Business & Entrepreneurial studies	→ -History -Legal studies -Business Management
	-Mathematics	→ -Mathematics	→ -General / Further Maths -Maths Methods -Specialist Maths
Science	-Science -STEAM/elective -Sustainability	→ -Science -Emerging Sciences Victoria units # -Extended Investigation	→ -Biology -Chemistry -Physics -Psychology
	-Digital Technologies -Robotics -Product Design & Technology - Textiles	→ -Digital Technologies	→ Applied Computing (New subject in 2020)
Visual & Performing Arts	-Art	→ -Studio Arts (2021) -Visual Communication	→ -Studio Arts (2020 – Unit 3 / 4) -Visual Communication
	-Music -Instrumental bands* -Performing Arts	→ -Music -College Band*	→ -Music Performance

Curriculum Pathway	Year 7 & 8 Subject	Year 9 & 10 Subject	VCE/VCE VET Subject
Physical Health & Wellbeing	-Physical Education -Interschool Sport -Healthy Choices -Outdoor Education	→ -Physical Education -Interschool Sport -Body in Action -Healthy Choices	→ -Physical Education -Interschool Sport*
Hospitality	-Pre - Hospitality	→ -Pre - Hospitality	→ -Hospitality - Kitchen Operations (VCE VET) - Front of House (VCE VET) - Patisserie (VET)
Vocational Studies		-Careers Education	
Faith & Service	-Christian Life -Student Chapel Year 7 & 8 Camp*	→ -Christian Life -Student Chapel -Year 9 Year of Challenge program Year 9 WASP camp* Year 10 Queensland Missions Trip*	→ -Gravitate (VET) -Student Chapel Year 11 City Missions Trip* Year 12 Thailand Missions Trip*

Please note: 1. **Italics** denotes that this is an elective subject

2. * denotes a co – curricular activity (non timetabled)

3. VCE Applied Computing is a new subject for 2020

4. VCE/VCE VET options may be increased through Distance Education and/or an offsite TAFE course

- Examples of subjects available through Distance Education include, **Accounting, English Literature, Geography, Health & Human Development**

5. # Emerging Sciences Victoria electives – these Science units are studied online through the John Monash Science School

VCE SUBJECTS PROPOSED FOR 2020

More details on subjects can be found on the VCAA website (www.vcaa.vic.edu.au)

VCE 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.

Structure

The study is made up of six units.

Unit 1: Applied computing

Unit 2: Applied computing

Unit 3: Data analytics

Unit 4: Data analytics

OR

Unit 3: Software development

Unit 4: Software development

Note: students may elect to undertake one or both of these Units 3 and 4 sequences.

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.

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional preparation as prescribed by their teacher.

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.

OR

Unit 3: Software Development

In this unit students apply the problem-solving methodology to develop working software modules using a programming language. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

In Area of Study 1 students respond to teacher-provided solution requirements and designs and develop a set of working modules through the use of a programming language. Students examine a simple software requirements specification and a range of software design tools in order to apply specific processing features of a programming language to create working modules. In Area of Study 2 students analyse a need or opportunity, select an appropriate development model, prepare a project plan, develop a software requirements specification and design a software solution. Area of Study 2 forms the first part of the School-assessed Task (SAT) that is completed in Unit 4, Area of Study 1.

Unit 4: Software Development

In this unit students focus on how the information needs of individuals and organisations are met through the creation of software solutions. They consider the risks to software and data during the software development process, as well as throughout the use of the software solution by an organisation.

In Area of Study 1 students apply the problem-solving stages of development and evaluation to develop their preferred design prepared in Unit 3, Area of Study 2, into a software solution and evaluate the solution, chosen development model and project plan. Area of Study 1 forms the second part of the School-assessed Task (SAT). In Area of Study 2 students examine the security practices of an organisation and the risks to software and data during the development and use of the software solutions. Students evaluate the current security practices and develop a risk management plan.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Applied Computing School-Assessed Coursework and an end-of-year examination will determine students' level of achievement.

Percentage contributions to the study score in VCE Applied Computing 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

Rationale

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system, species and ecosystem levels. In undertaking this study, students examine how life has evolved over time and understand that in the dynamic and interconnected system of life all change has a consequence that may affect an individual, a species or the collective biodiversity of Earth.

In VCE Biology students develop their inquiry, analytical and communication skills. They apply critical and creative thinking to analyse contemporary biology-related issues and communicate their views from an informed position.

Structure

The study is made up of four units:

Unit 1: How do living things stay alive?

Unit 2: How is continuity of life maintained?

Unit 3: How do cells maintain life?

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

Each unit contains two or three areas of study.

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional preparation as prescribed by their teacher. 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 1: How do living things stay alive?

In this unit students explain what is needed by an organism to stay alive. They are introduced to some of the challenges for organisms in sustaining life. Students examine the cell as the structural and functional unit of life and the requirements for sustaining cellular processes in terms of inputs and outputs. Types of adaptations that enhance the organism's survival in a particular environment are analysed, and the role that homeostatic mechanisms play in maintaining the internal environment is studied. Students consider how the planet's biodiversity is classified and investigate the factors that affect population growth.

A student investigation related to the survival of an organism or species is undertaken in Area of Study 3. The investigation draws on content from Area of Study 1 and/or Area of Study 2.

Unit 2: How is continuity of life maintained?

In this unit students focus on asexual and sexual cell reproduction and the transmission of biological information from generation to generation. The role of stem cells in the differentiation, growth, repair and replacement of cells in humans is examined, and their potential use in medical therapies is considered. Students explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. They consider the role of genetic knowledge in decision-making about the inheritance of various genetic conditions. In this context, the uses of genetic screening and its social and ethical issues are examined.

A student investigation into, and communication of, an issue related to genetics and/or reproductive science is undertaken in Area of Study 3. The investigation draws on content 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. These different perspectives enable consideration of both the capabilities and the limitations of living organisms whether animal, plant, fungus or microorganism. Students examine the key molecules and biochemical pathways involved in cellular processes both within the cell and between cells. At this molecular level students study the human immune system and the interactions between its components to provide immunity to a specific antigen.

A student investigation related to biological change and/or continuity is undertaken in either Unit 3 or Unit 4, or across both Unit 3 and Unit 4. The findings of the investigation are presented in a scientific poster format.

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 subjected. They examine change in life forms, investigate the relatedness between species and consider the impact of various change events on a population's gene pool. Students explore the structural and cognitive trends in the human fossil record and the interrelationships between human biological and cultural evolution. The biological consequences, and social and ethical implications, of manipulating the DNA molecule and applying biotechnologies are explored for both the individual and the species.

A student investigation related to biological change and/or continuity is undertaken in either Unit 3 or Unit 4, or across both Unit 3 and Unit 4. The findings of the investigation are presented in a scientific poster format.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Biology the student's level of achievement will be determined by School-Assessed Coursework as specified in the VCE Biology study design and external assessment.

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

- Unit 3 School-Assessed Coursework: 16 per cent
- Unit 4 School-Assessed Coursework: 24 per cent
- End-of-year examination: 60 per cent

VCE BUSINESS MANAGEMENT

Rationale

In contemporary Australian society, there is 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.

Structure

The study is made up of four units.

Unit 1: Planning a business

Unit 2: Establishing a business

Unit 3: Managing a business

Unit 4: Transforming a business

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.

Entry

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

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Business Management School-Assessed Coursework and an end-of-year examination will determine students' level of achievement.

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

VCE CHEMISTRY

Rationale

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

Structure

The study is made up of four units:

Unit 1: How can the diversity of materials be explained?

Unit 2: What makes water such a unique chemical?

Unit 3: How can chemical processes be designed to optimise efficiency?

Unit 4: How are organic compounds categorised, analysed and used?

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional preparation as prescribed by their teacher.

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 properties and practical applications of a range of materials including metals, crystals, polymers, nanomaterials and giant lattices. They explore and explain the relationships between properties, structure and bonding forces within and between particles that vary in size from the visible through to nanoparticles, molecules and atoms. Students are introduced to quantitative concepts in chemistry.

Unit 2: What makes water such a unique chemical?

Water is the most widely used solvent on earth. In this unit students explore the physical and chemical properties of water, the reactions that occur in water and various methods of water analysis.

Students examine the structure and bonding within and between water molecules in order to investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. They are introduced to stoichiometry and to analytical techniques and instrumental procedures analysis and apply these to determine concentrations of different species in water samples, including chemical contaminants. Students explore the solvent properties of water in a variety of contexts and analyse selected issues associated with substances dissolved in water.

Unit 3: How can chemical processes be designed to optimise efficiency?

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

Students compare and evaluate different chemical energy resources and investigate the combustion of fuels. They consider the purpose, design and operating principles of galvanic cells, fuel cells and electrolytic cells and calculate quantities in electrolytic reactions. Students analyse manufacturing processes with reference to factors that influence their reaction rates and extent. They apply the equilibrium law and Le Chatelier's principle to predict and explain the conditions that will improve the efficiency and percentage yield of chemical processes.

Unit 4: How are organic compounds categorised, analysed and used?

Carbon is the basis of the diverse compounds found in living tissues and in the fuels, foods, medicines and many of the materials we use in everyday life. In this unit students investigate the structural features, bonding, reactions and uses of the major families of organic compounds including those found in food.

Students process data from instrumental analyses to confirm or deduce organic structures and perform volumetric analyses to determine the concentrations of organic chemicals in mixtures. They predict the products of reaction pathways and design pathways to produce particular compounds from given starting materials. Students investigate key food molecules including carbohydrates, proteins, lipids and vitamins and use calorimetry to determine the energy

released in the combustion of food.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Chemistry the student's level of achievement will be determined by School-Assessed Coursework as specified in the VCE Chemistry study design and external assessment.

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

- Unit 3 School-Assessed Coursework: 16 per cent
- Unit 4 School-Assessed Coursework: 24 per cent
- End-of-year examination: 60 per cent

VCE ENGLISH AND EAL (ENGLISH AS ADDITIONAL LANGUAGE)

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, further developing 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 Victorian Curriculum English in the key discipline concepts of language, literature and literacy, and the language modes of listening, speaking, reading, viewing and writing.

Structure

The study is made up of four units. Each unit contains between two and three areas of study.

Entry

There are no prerequisites for entry to Units 1 and 2. Students must undertake Unit 3 prior to undertaking Unit 4. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education.

Text selection Unit 1 and 2

In Units 1 and 2, text selection is a school-based decision, and must be made in accordance with the instructions provided on page 9 of the VCE English/EAL Study Design.

Unit 1

In this unit, students read and respond to texts both analytically and creatively. They also analyse arguments and the use of persuasive language in texts, going on to create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts. For EAL English, there is a spoken component to allow for the development of listening skills.

Unit 2

In this unit students compare the presentation of ideas, issues and themes in a pair of texts. They also analyse arguments presented and the use of persuasive language in texts, going on to create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts. For EAL English, there is a spoken component to allow for the development of listening skills.

Units 3 and 4

In Units 3 and 4, text selection must be made in accordance with the instructions provided on page 17 of the VCE English/EAL Study Design.

Unit 3

In this unit students read and respond to texts analytically and creatively. They also analyse arguments and the use of persuasive language in texts. Comprehension of spoken texts is an additional focus for EAL English.

Unit 4

In this unit students compare the presentation of ideas, issues and themes in a pair of texts. They also create an oral presentation intended to position audiences about an issue currently debated in the media.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE English/EAL students' level of achievement will be determined by School-Assessed Coursework (SACs) as specified in the VCE study design, and external assessment.

Percentage contributions to the study score in VCE English/EAL 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

VCE FRENCH

Rationale

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

The study of French develops students' ability to understand and use a language which is widely learned and spoken internationally, and which is an official language of many world organisations and international events. The ability to use and understand French also provides students with a direct means of access to the rich and varied culture of francophone communities around the world.

Structure

The study is made up of four units. Each unit deals with language and specific content contained in the 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.

Outcomes

Outcomes define what students will know and be able to do as a result of undertaking the study. Outcomes include a summary statement and the key knowledge and skills that underpin them. Only the summary statements of the outcomes have been reproduced below and must be read in conjunction with the key knowledge and skills published in each language study design (found on the VCAA website).

Students demonstrate the achievement of the outcomes based on progressive development of skills in listening, speaking, reading and writing through activities and tasks organised around the areas of study. The areas of study in Units 1-4 focus on the areas of study for language, which are made up of the themes and topics, text types, kinds of writing, vocabulary and grammar. They are common to all four units of the study and are published in the study design. They are tailored to the specific qualities of the language being studied.

Year 11

Unit 1

The 3 outcomes for Unit 1 are:

1. On completion of this unit the student should be able to exchange meaning in a spoken interaction in French.
2. On completion of this unit the student should be able to interpret information from two texts on the same subtopic presented in French and respond in writing in French and in English.
3. On completion of this unit the student should be able to present information, concepts and ideas in writing in French on the selected subtopic and for a specific audience and purpose.

Unit 2

The 3 outcomes for Unit 2 are:

1. On completion of this unit the student should be able to respond in writing in French to spoken, written or visual texts presented in French.
2. On completion of this unit the student should be able to analyse and use information from written, spoken or visual texts to produce an extended written response in French.
3. On completion of this unit the student should be able to explain information, ideas and concepts orally in French to a specific audience about an aspect of culture within communities where French is spoken.

Assessment

The award of satisfactory completion for a unit is based on the teacher's decision 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.

Levels of achievement

Units 1 and 2

Individual school decision on levels of achievement.

* This subject is likely to be offered through Victorian School of Languages with us providing on site teacher support.

YEAR 12

Unit 3

The three outcomes for Unit 3 are:

1. On completion of this unit the student should be able to express ideas through the production of original texts.
2. On completion of this unit the student should be able to analyse and use information from spoken texts.
3. On completion of this unit the student should be able to exchange information, opinions and experiences.

Unit 4

The two outcomes for Unit 4 are:

1. On completion of this unit the student should be able to analyse and use information from written texts.
2. On completion of this unit the student should be able to respond critically to spoken and written texts that reflect aspects of the language and culture of French-speaking communities.

Assessment

Satisfactory completion

Demonstrated achievement of the set of outcomes specified for the unit.

Levels of achievement

Units 1 and 2

Individual school decision on levels of achievement.

Units 3 and 4

School Assessed Coursework and end-of-year examinations:

Unit 3 School Assessed Coursework: 25 per cent

Unit 4 School Assessed Coursework: 25 per cent

Examinations*:

Oral component: 12.5 per cent

Written component: 37.5 per cent

*A single grade is awarded

VCE GRAVITATE - CERTIFICATE III IN CHRISTIAN MINISTRY & THEOLOGY (10432NAT)

Rationale

VCE is a really important time in a student's life: the people they associate with and the ideas they take on are forming who they are becoming. Gravitate asks the question, 'What does it look like to live a life of mission?' and suggests, 'Let's do this on purpose'.

Central to Gravitate are these three aspects: The Bible, Mission and Personal Growth.

Gravitate is an accredited VET course through ACAS (Australian Centre For Advanced Studies – RTO #50392) provided by Youth Dimension and delivered by HCC Chaplains.

Successful completion offers credit towards VCE studies, used as a 5th or 6th subject under Block Credit Recognition.

Youth Dimension www.yd.org.au Australian Centre For Advanced Studies - RTO #50392
www.acas.edu.au.

Structure

Classes are interactive, practical and held on Wednesday afternoons at HCC from term 1-3.

Camps:

2 x Outreach Training Camps

1x Community Day

Cost

The total cost for Gravitare in 2019 is \$1800. This covers all course materials, camps and community day.

Assessment

Student work will be assessed by YD staff in consultation with HCC chaplains. Student work will be assessed according to Unit of Competency criteria as; competent, not yet competent or not competent. Students must obtain competency for each subject to successfully obtain the Certificate III in Christian Ministry and Theology and therefore gain VCE credit.

Subjects

- Foundations (CMTTHE301)

Students will see how the Bible answers big questions about who God is and what He is doing and learn simple skills on how to study the Bible well.

- Secrets of the Kingdom (CMTTHE303).

Students will look at parables where Jesus announced the Kingdom of God. Students will grapple with questions such as, What was Jesus actually saying? What is the Kingdom Jesus spoke about like? Who is included? When does it start?

- Straight Paths (CMTTHE302)

Students will learn from the wisdom of Proverbs and see how such an old book could be relevant today.

- Moviology (CMTTHE304)

Looking at the power of story-telling in film. Students will search for stories of hope and redemption in popular films and develop skills in starting important, hope-giving conversations.

- Faith Journey & Hot Topics (CMTMIN301)

Students will practice listening to God as they read the Bible and journal. They will investigate and present two talks on issues that are common 'belief-blockers'.

- ePresent (BSBITU302B)

Students will present their Hot Topic creatively using IT skills, so they connect and engage with young people.

- Outreach Training 1: Putting your faith in words (CMTMIN302)

Most of this unit is completed on the first camp. Students will be exploring the Gospel in film and experience the power of story-telling.

- Outreach Training 2: Putting your faith in action (BSBWOR202)

Students will be introduced to this unit on the second camp. Students will work together in teams to plan, complete and review an outreach activity.

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.

Structure

The study is made up of twelve units.

YEAR 11

Unit 1:

Ideology and conflict social and cultural change

Twentieth century history 1918–1945

Unit 2:

Twentieth century history 1945–2000

Competing ideologies

Challenge and change

YEAR 12

Units 3 and 4:

Australian history Renaissance History Revolutions

Each unit contains between two and four areas of study

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

VCE 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 lawyer, paralegal, legal secretary and careers in the courtroom.

Structure

The study is made up of four units.

Unit 1: Guilt and liability

Unit 2: Sanctions, remedies and rights

Unit 3: Rights and justice

Unit 4: The people and the law

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.

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 1: Guilt and liability

Criminal law and civil law aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order and infringing criminal law can result in charges. Civil law deals with the infringement of a person's or group's rights and breaching civil law can result in litigation.

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

Unit 2: Sanctions, remedies and rights

Criminal law and civil law aim to protect the rights of individuals. When rights are infringed, a case or dispute may arise which needs to be determined or resolved, and sanctions or remedies may be imposed. This unit focuses on the enforcement of criminal law and civil law, the methods and institutions that may be used to determine a criminal case or resolve a civil dispute, and the purposes and types of sanctions and remedies and their effectiveness. Students undertake a detailed investigation of two criminal cases and two civil cases from the past four years to form a judgment about the ability of sanctions and remedies to achieve the principles of justice. Students develop their understanding of the way rights are protected in Australia and in another country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

Unit 3: 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 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 Victorian legal institutions and bodies available to assist with cases.

Students explore matters such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system. They discuss recent reforms

from the past four years and recommended reforms to enhance the ability of the justice system to achieve the principles of justice. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

Unit 4: The people and the law

The study of Australia's laws and legal system involves an understanding of institutions that make and reform our laws, and the relationship between the Australian people, the Australian Constitution and law-making bodies. In this unit, students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments and protects the Australian people through structures that act as a check on parliament in law-making. Students develop an understanding of the significance of the High Court in protecting and interpreting the Australian Constitution. They investigate parliament and the courts, and the relationship between the two in law-making, and consider the roles of the individual, the media and law reform bodies in influencing law reform. Throughout this unit, students apply legal reasoning and information to actual scenarios.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Please refer to the VCAA website and 2018 Legal Studies Study design at http://www.vcaa.vic.edu.au/Documents/vce/legalstudies/LegalSD_2018.pdf

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Legal Studies students' level of achievement will be determined by School-Assessed Coursework and an end-of-year examination.

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

Rationale

Mathematics is the study of function and pattern in number, logic, space and structure. It provides both a framework for thinking and a means of symbolic communication that is powerful, logical, concise and precise. Essential mathematical activities include calculating and computing, abstracting, conjecturing, proving, applying, investigating, modelling, and problem posing and solving.

These studies are designed to promote students' awareness of the importance of mathematics in everyday life in a technological society, and confidence in making effective use of mathematical ideas, techniques and processes. They assist in seeing and honouring God's use of patterns, logic, variety, order and wisdom in creation and culture. Mathematics calls upon and develops attitudes of perseverance, diligence and problem solving, that all students need in their personal, work and civic life.

Pathways for VCE Mathematics

Mathematics in VCE provides for a broad range of students and therefore there are several pathway options across Years 11 and 12.

Broadly, there are three main pathways:

1. General Mathematics Units 1 and 2 followed by Further Mathematics Units 3 and 4

This has a greater focus on financial and statistical mathematics.

It achieves the prerequisite of VCE mathematical studies for some university courses.

2. Mathematical Methods Units 1 and 2 followed by Units 3 and 4

This has a greater focus on algebra, functions and graphs and probability. Students should be competent in these areas.

This sequence satisfies many of the university, VCE mathematical studies prerequisites.

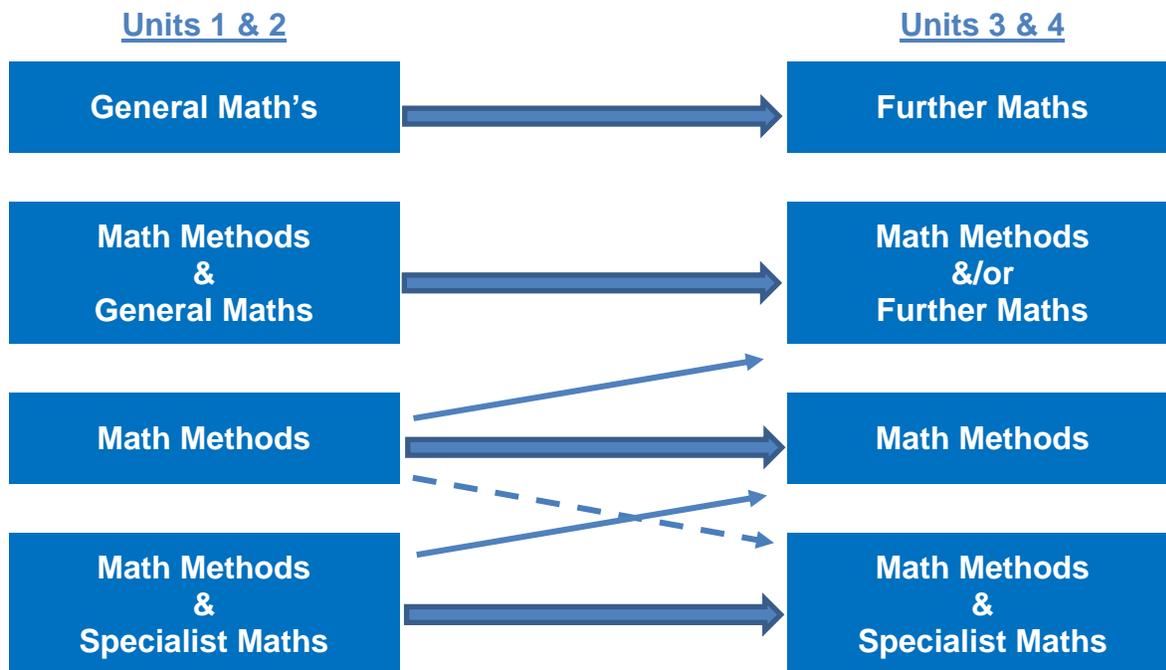
3. Specialist Mathematics Units 1, 2, 3, 4 alongside, Mathematical Methods Units 1, 2, 3, 4

For students with excellent mathematical skills and application.

This is a prerequisite for some University courses with a high science, mathematics or engineering content.

Please note: Students must research and not assume, the exact Mathematic units that are pre-requisites for their desired university and course

Pathways Diagram



Assessment for Units 1- 4 of VCE Mathematics

Satisfactory completion

For each unit, students are assessed as an 'S' = Satisfactory Completion; or 'NS' Not Satisfactory Completion. This is a school decision, based on whether a student has demonstrated the set of outcomes specified for the unit. Each Unit for all mathematical studies have outcomes similar to these:

Outcome 1: On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study and apply related mathematical techniques in routine contexts.

Outcome 2: On completion of each unit the student should be able to apply mathematical processes in non-routine contexts, and analyse and discuss these applications of mathematics.

Outcome 3: On completion of this unit the student should be able to select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

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

Levels of achievement

Units 1 and 2

Individual school decision on levels of achievement.

Units 3 and 4

The student's level of achievement will be determined by School-Assessed Coursework and two end-of-year examinations.

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

	Further Mathematics	Mathematical Methods (CAS)	Specialist Mathematics
Unit 3 SAC	20% (2 Tasks)	17% (1 Task)	17% (1 Task)
Unit 4 SAC	14% (2 Tasks)	17% (2 Tasks)	17% (2 Tasks)
Unit 3&4 Exam 1	33%	22%	22%
Unit 3&4 Exam 2	33%	44%	44%

VCE MATHS (GENERAL)

Rationale

See VCE Mathematics introduction page.

Entry

There are no pre-requisites for students to study General Mathematics.

Structure

The study is made up of 2 units.

YEAR 11

Units 1 and 2

General Mathematics provides for different combinations of student interests and preparation for study of VCE Mathematics at the Unit 3 and 4 level. The areas of study for General Mathematics Unit 1 and Unit 2 are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'.

Assessment and Levels of achievement

See VCE Mathematics introduction page.

VCE MATHS (FURTHER)

Rationale

See Rationale in Mathematics introduction.

Entry

The assumed knowledge and skills for Further Mathematics Units 3 and 4 are drawn from General Mathematics Units 1 and 2. Alternatively, students who have completed Mathematical Methods (CAS) Units 1 and 2 will also have knowledge and skills enabling them to undertake Further Mathematics.

Structure

The study is made up of two units.

YEAR 12

Units 3 and 4:

Further Mathematics consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. Assumed knowledge and skills for the Core and Applications areas are contained in General Mathematics Units 1 and 2.

The Core comprises 'Data analysis' and 'Recursion and financial modelling'. Data analysis comprises 40 per cent of the content to be covered, 'Recursion and financial modelling' comprises 20 per cent of the content to be covered

The Applications comprises two modules to be completed in their entirety, from a selection of four possible modules: 'Matrices', 'Networks and decision Mathematics', 'Geometry and measurement' and 'Graphs and relations'. Each selected module comprises 20 per cent of the content to be covered.

Assessment and Levels of achievement

See VCE Mathematics introduction page.

Rationale

See Rationale in Mathematics introduction.

Entry

There are no prerequisites for entry to Mathematical Methods (CAS) Units 1 and 2. However, students attempting Mathematical Methods (CAS) are expected to have a sound background in number, algebra, function, and probability. Some additional preparatory work will be advisable for any student who is undertaking Unit 2 without completing Unit 1. Mathematical Methods Units 1 and 2 contain assumed knowledge and skills for Mathematical Methods Units 3 and 4. Students must undertake Unit 3 prior to undertaking Unit 4.

Structure

Mathematical Methods Units 1 and 2 are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units. See the VCE Mathematics Introduction page for more detail.

YEAR 11

Units 1 and 2:

The areas of study for Units 1 and 2 are 'Functions and graphs', 'Algebra', 'Calculus', and 'Probability and statistics'. The focus of Unit 1 is the study of simple algebraic functions, and Unit 2 extends the focus to the study of simple transcendental functions and the calculus of simple algebraic functions.

YEAR 12

Units 3 and 4:

Unit 3 areas of study include: 'Functions and graphs' and 'Algebra, and applications of derivatives and differentiation, and identifying and analysing key features of the functions and their graphs from the 'Calculus' area of study.

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

Assessment and Levels of achievement

See VCE Mathematics introduction page

Rationale

See Rationale in Mathematics introduction.

Entry

To automatically enter Specialist Mathematics Units 1 and 2:

Students must have shown a high standard of understanding in their Year 10 mathematics studies.

Advanced Mathematics at Year 10 is recommended.

To enter Specialist Mathematics Units 3 and 4, Students must:

Have satisfactorily completed Mathematical Methods (CAS) Units 1 and 2 and also be studying Mathematical Methods (CAS) Units 3 and 4.

Have completed Specialist Mathematics Units 1 and 2 (or teacher directed, extensive preparation work).

Structure

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. See the VCE Mathematics Introduction page for more detail.

YEAR 11

Units 1 and 2:

The areas of study for Units 1 and 2 of Specialist Mathematics are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'.

YEAR 12

Units 3 and 4:

Specialist Mathematics Units 3 and 4 consist of the areas of study: 'Functions and graphs', 'Algebra', 'Calculus', 'Vectors', 'Mechanics' and 'Probability and statistics'.

Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and skills from Mathematical Methods Units 1 and 2, the key knowledge and skills from Specialist Mathematics Units 1 and 2 topics 'Number systems and recursion' and 'Geometry in the plane and proof', and concurrent or previous study of Mathematical Methods Units 3 and 4.

Assessment and Levels of achievement

See VCE Mathematics introduction page.

VCE MUSIC PERFORMANCE

Rationale

Music learning requires students' active engagement in the practices of listening, performing and composing. As they learn in music, students apply critical and creative thinking skills to analyse and critique the work of contemporary and historical practitioners and develop their understanding of the diverse ways in which music ideas can be shaped to communicate artistic and expressive intent. Students also develop insights into the music traditions of contemporary and historical global cultures and form understandings of ways in which music can interact with other arts forms and fields of endeavour. VCE Music equips students with personal and musical skills that enable them to 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 four 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.

The study structure is:

Music Performance Unit 1 & 2

Music Performance Unit 3 & 4

Entry

There are no prerequisites for entry to Units 1, 2 and 3 Music Performance. Students must undertake Unit 3 of the relevant Unit 3–4 sequence prior to undertaking Unit 4. Student entering Unit 3 without Units 1 and/or 2 may be required to undertake additional preparation as prescribed by their teacher. All VCE studies are benchmarked against comparable national and international curriculum.

At least four to five years' experience in learning an instrument/s is recommended before commencing VCE Music Performance. It is required that students provide their own instrument or make necessary arrangements to access an instrument of an appropriate quality for VCE Performance. It is also expected that students undertake private instrumental lessons on their chosen instrument to support their learning at this level. These are additional costs and are not covered by school fees.

Unit 1 and 2: Music Performance

This unit focuses on building performance and musicianship skills. Students present performances of selected group and solo music works using one or more instruments and take opportunities to perform in familiar and unfamiliar venues and spaces. They study the work of other performers and explore strategies to optimise their own approach to performance. By identifying technical, expressive and stylistic challenges relevant to works they are preparing for performance and endeavour to address these challenges. Students develop their listening, aural, theoretical and analytical musicianship skills and apply this knowledge when preparing and presenting performances.

Area of Study 1: Performance

In this area of study students prepare for their performances by selecting, researching, interpreting and learning solo and group works. Students perform regularly in different contexts using these performances to explore and build on ways of expressively shaping their chosen works and communicating their artistic intentions to an audience. They develop individual instrumental and musicianship skills through regular practice and develop and implement group skills through rehearsal and performance with other musicians. On completion of these units the student should be able to prepare and perform a program of group and solo works.

Area of Study 2: Preparing for performance

This area of study focuses on continual development of students' capabilities to present musically engaging and technically competent group and solo performances. Students research and develop knowledge of the works they are preparing by identifying and systematically practising relevant material and processes that will enhance their ability to realise the character and style of selected group and solo works. As students undertake individual practice and group rehearsals, they trial the use of strategies, techniques and conventions to enhance their performance. They also systematically develop their capacity to use aural, technical and interpretative musicianship skills to enhance their performance.

Area of Study 3: Music language

In this area of study students continue to build their understanding of music language used for interpretation and critical listening. Students study concepts in isolation, from a theoretical perspective and in the contexts of performing and interpretation. They build their general musicianship ability, identifying specific applications for their skills in learning, rehearsal and performance contexts. Students develop their ability to identify, sing, play, and write fundamental components of music language, including intervals, scales and triads. They also re-create and extend short melodic and rhythmic phrases, singing and playing from sight and memory, and practise and refine their ability to notate music by hand. Students use knowledge developed across this area of study to explore characteristics of works being prepared for performance and make decisions about approaches to interpretation. On completion of these units the student should be able to re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted.

Area of Study 4: Organisation of sound (Unit 2 only)

This area of study focuses on creating original work as a composition or an improvisation informed by analysis of a work/s being prepared for performance. The creative process is an individual one and has many starting points for inspiration. Students study and listen to a wide variety of music. They explore a range of strategies within a selected stylistic framework to explore creative possibilities and generate and extend music ideas, for example improvisation and/or by using an element of music or a concept, such as a key, chord progression, instrumentation, mood.

Unit 3 and 4: Music Performance

This unit focuses on building and refining performance and musicianship skills. Students focus on either group or solo performance and begin preparation of a performance program they will present in the end-of-year examination. As part of their preparation, students will also present performances of both group and solo music works using one or more instruments and take opportunities to perform in familiar and unfamiliar venues and spaces. Through analyses of

other performers' interpretations and feedback on their own performances, students refine their interpretations and optimise their approach to performance. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and endeavour to address these challenges. Students develop their listening, aural, theoretical and analytical musicianship skills and apply this knowledge when preparing and presenting performances.

Area of Study 1: Performance

In this area of study students prepare performances by selecting, researching, interpreting and learning solo and group works. Students perform regularly in a variety of contexts and use these performances to explore and build on ways of expressively shaping their chosen works and communicating their artistic intentions to an audience. They develop their individual instrumental and musicianship skills through regular practice and develop and implement group skills through rehearsal with other musicians.

Across Units 3 and 4 students must perform the number of works specified for the selected instrument or group in the performance examination specifications and relevant prescribed list. The works selected should allow students to meet examination requirements and conditions. On completion of these units the student should be able to prepare and perform a program of group and solo works and demonstrate a diverse range of techniques and expressive qualities and an understanding of a wide range of music styles and performance conventions.

Area of Study 2: Preparing for performance

This area of study focuses on continual development of students' capabilities to present musically engaging and technically competent group and solo performances. Students develop knowledge of the works they are preparing to perform and systematically practise relevant material and processes that will enhance their ability to realise the character and style of selected group and solo works. As students develop and practise rehearsal strategies, they trial the use of techniques and conventions. They systematically develop their capacity to use aural, technical and interpretative musicianship skills to enhance their performance.

Students identify strengths and weaknesses in their performance capabilities and develop a planned approach to address challenges and optimise their performance. They select and create exercises and practise material to consolidate and refine their command of instrumental and presentation techniques. They build their understanding of how to control and manipulate techniques and conventions to increase their ability to communicate with an audience. On completion of these units the student should be able to demonstrate and discuss techniques relevant to performance of selected works.

Area of Study 3: Music language

In this area of study students continue to systematically develop their understanding of music language used for performance, interpretation, critical listening and analysis. They develop and refine their ability to identify, recognise, notate and transcribe short music excerpts, as well as to re-create short sections of music by singing, humming and/or playing. Students practise and refine their ability to notate music by hand. They further develop their understanding of ways expressive elements of music can be interpreted in the performance of music works. They apply this knowledge to analyse and compare ways in which performers have interpreted a variety of works, including works created by Australian composers/songwriters after 1980 and works by composers working in other times and locations. On completion of these units the student should be able to identify, re-create, notate and transcribe short excerpts of music, and discuss the interpretation of expressive elements of music in pre-recorded works.

Assessment

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. All assessments at Units 1 and 2 are school based. Procedures for assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Unit 3 – School Assessed Coursework: 20 per cent

Unit 4 – School Assessed Coursework: 10 per cent

Unit 4 – Final Performance Exam: 50 per cent

Unit 4 – End of Year Written & Aural Exam: 20 per cent

VCE PHYSICS

Rationale

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

In VCE Physics students develop their inquiry, analytical and communication skills. They apply critical and creative thinking to analyse contemporary physics-related issues and communicate their views from an informed position.

Structure

The study is made up of four units:

- **Unit 1:** What ideas explain the physical world?
- **Unit 2:** What do experiments reveal about the physical world?
- **Unit 3:** How do fields explain motion and electricity?
- **Unit 4:** How can two contradictory models explain both light and matter?

Each unit contains three areas of study.

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional preparation as prescribed by their teacher. 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 1: What ideas explain the physical world?

In this unit students explore some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. They consider thermal concepts by investigating heat and assessing the impact of human use of energy on the environment. Students evaluate common analogies used to explain electricity and investigate how electricity can be manipulated and utilised. They examine current scientifically accepted theories that explain how matter and energy have changed since the origins of the universe. Students undertake quantitative investigations involving at least one independent, continuous variable.

Unit 2: What do experiments reveal about the physical world?

This unit requires that students undertake a core study related to motion, one option from a choice of twelve options, and a student-designed investigation related to motion and/or one of the twelve options.

In this unit, students explore the power of experiments in developing models and theories. They make direct observations of physics phenomena and examine the ways in which phenomena that may not be directly observable can be explored including through indirect observations. Students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary. They choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science.

Students design and undertake investigations involving at least one independent, continuous variable. A student-designed practical investigation related to content drawn from Area of Study 1 and/or Area of Study 2 is undertaken in Area of Study 3.

Unit 3: How do fields explain motion and electricity?

In this unit, students explore the importance of energy in explaining and describing the physical world. They examine the production of electricity and its delivery to homes. Students consider the field model as a construct that has enabled an understanding of why objects move when they are not apparently in contact with other objects. They explore the interactions, effects and applications of gravitational, electric and magnetic fields including the design and operation of particle accelerators. Students use Newton's laws and Einstein's theories to investigate and describe motion.

Students design and undertake investigations involving at least two independent variables, with at least one of the independent variables being continuous. A student-designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Unit 3 and Unit 4. The findings of the investigation are presented in a scientific poster format.

Unit 4: How can two contradictory models explain both light and matter?

Light and matter – which initially seem to be quite different – have been observed as having similar properties. In this unit, students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and analyse its limitations in describing light behaviour. Students further

investigate light by using a particle model to explain its behaviour. A wave model is also used to explain the behaviour of matter which enables students to consider the relationship between light and matter. Students are challenged to think beyond the concepts experienced in everyday life to study the physical world from a new perspective.

Students design and undertake investigations involving at least two continuous independent variables. A student-designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Unit 3 and Unit 4. The findings of the investigation are presented in a scientific poster format.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Physics the student's level of achievement will be determined by School-Assessed Coursework as specified in the VCE Physics study design and external assessment.

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

- Unit 3 School-Assessed Coursework: 21 per cent
- Unit 4 School-Assessed Coursework: 19 per cent
- End-of-year examination: 60 per cent.

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

Aims

This study enables students to:

- Use practical activities to underpin contemporary theoretical understanding of the influences on participation and performance in physical activity, sport and exercise.
- Develop an understanding of the anatomical, biomechanical, physiological and skill acquisition principles, and of behavioural, psychological, environmental and sociocultural influences on performance and participation in physical activity across the lifespan.
- Engage in physical activity and movement experiences to determine and analyse how the body systems work together to produce and refine movement.
- Critically evaluate changes in participation from a social-ecological perspective and performance in physical activity, sport and exercise through monitoring, testing and measuring of key parameters.

Structure

The study is made up of four units.

Unit 1: The human body in motion

Unit 2: Physical activity, sport and society

Unit 3: Movement skills and energy for physical activity

Unit 4: Training to improve performance

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.

Entry

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

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 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 investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied. Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

Unit 3: Movement skills and energy for physical activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply

biomechanical and skill acquisition principles to improve and 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 activity and sport. Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. 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 and 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 adaptations to training from a theoretical perspective.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Physical Education students' level of achievement will be determined by School-Assessed Coursework and an end-of-year examination.

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

Rationale

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

In VCE Psychology students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary psychology-related issues and communicate their views from an informed position. VCE Psychology provides for continuing study pathways within the discipline and leads to a range of careers. Opportunities may involve working with children, adults, families and communities in a variety of settings such as academic and research institutions, management and human resources, and government, corporate and private enterprises. Fields of applied psychology include educational, environmental, forensic, health, sport and organisational psychology. Specialist fields of psychology include counselling and clinical contexts, as well as neuropsychology, social psychology and developmental psychology. Psychologists also work in cross-disciplinary areas such as medical research or as part of on-going or emergency support services in educational, institutional and industrial settings.

Aims

This study enables students to:

- Apply psychological models, theories and concepts to describe, explain and analyse observations and ideas related to human thoughts, emotions and behavior
- Examine the ways that a biopsychosocial approach can be applied to organise, analyse and extend knowledge in psychology and more broadly
- Understand the cooperative, cumulative, evolutionary and interdisciplinary nature of science as a human endeavour, including its possibilities, limitations and political and sociocultural influences
- Develop a range of individual and collaborative science investigation skills through experimental and inquiry tasks in the field and in the laboratory
- Develop an informed perspective on contemporary science-based issues of local and global significance
- Apply their scientific understanding to familiar and to unfamiliar situations, including personal, social, environmental and technological contexts
- Develop attitudes that include curiosity, open-mindedness, creativity, flexibility, integrity, attention to detail and respect for evidence-based conclusions
- Understand and apply the research, ethical and safety principles that govern the study and

practice of the discipline in the collection, analysis, critical evaluation and reporting of data

- Communicate clearly and accurately an understanding of the discipline using appropriate terminology, conventions and formats.

Structure

The study is made up of four units:

Unit 1: How are behaviour and mental processes shaped?

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

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

Unit 4: How is wellbeing developed and maintained?

Entry

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

Unit 1: How are behaviour and mental processes shaped?

In this unit students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. Students explore brain plasticity and the influence that brain damage may have on a person's psychological functioning. They consider the complex nature of psychological development, including situations where psychological development may not occur as expected.

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

A person's thoughts, feelings and behaviours are influenced by a variety of biological, psychological and social factors. In this unit students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted. They evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of an individual and groups.

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

The nervous system influences behaviour and the way people experience the world. In this unit students examine the functioning of the nervous system to explain how a person can interact with the world around them. They explore how stress may affect a person's psychological functioning and consider the causes and management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, the development of new capacities and changed behaviours. They consider the limitations and fallibility of memory and how memory can be improved.

Unit 4: How is wellbeing developed and maintained?

Consciousness and mental health are two of many psychological constructs that can be explored by studying the relationship between the mind, brain and behaviour. In this unit, students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a bio psychosocial approach to analyse mental health and disorder. They use specific phobia to illustrate how the development and management of a mental disorder can be considered as an interaction between biological, psychological and social factors.

Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Psychology the student's level of achievement will be determined by School-Assessed Coursework as specified in the VCE Psychology study design and external assessment.

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

- Unit 3 School-Assessed Coursework: 16 per cent
- Unit 4 School-Assessed Coursework: 24 per cent
- End-of-year examination: 60 per cent.

VCE VET HOSPITALITY

Credit in VCE Hospitality Stream

Students who undertake the VCE VET Hospitality program (Hospitality Stream) are required to complete a minimum of 17 units of competency – six compulsory units of competency plus a minimum of six elective units of competency for Units 1 and 2 and 5 compulsory units of competency for Units 3 and 4.

Students will:

- be eligible for the award of SIT20212 Certificate II in Hospitality
- have gained recognition for Units 1 and 2 sequences in the first year and Units 3 and 4 sequences in the second year.

Kitchen Operations Stream

Students who undertake the VCE VET Hospitality program (Kitchen Operations Stream) are required to complete a minimum of 14 units of competency – six compulsory units of competency plus a minimum of three elective units of competency for Units 1 and 2 and 5 compulsory units of competency for Units 3 and 4.

Students will:

- be eligible for completion of the SIT20312 Certificate II in Kitchen Operations
- have gained recognition for Units 1 and 2 sequences in the first year and Units 3 and 4 sequences in the second year.

Note: The Units 3 and 4 sequences of VCE VET Hospitality are not designed as stand-alone studies. Students cannot undertake the Units 3 and 4 sequences without first completing the six core units of competency from the Units 1 and 2 programs, plus the appropriate stream electives.

Patisserie Stream

Students who have completed the first year of training in Hospitality can undertake to complete Certificate III Patisserie (in part) in the second year of study.

Certificate III in Patisserie is not a scored assessed subject and hence, students would not sit the VCE Examination.

Students who have successfully completed Certificate III in Patisserie would receive a 10% increment of the average of their first four study scores. This increment would contribute directly to their ATAR.

Scored Assessment

Students wishing to receive a study score for VCE VET Hospitality must undertake Scored Assessment. This consists of three coursework tasks, worth 66% of the overall study score and

an end of year examination, worth 34% of the overall study score.

Scored assessment is based on the Units 3 and 4 sequences in the Hospitality or Kitchen Operations streams that comprise VCE VET Hospitality.

ATAR contribution

Students wishing to receive a study score for the Units 3 and 4 sequences VCE VET Hospitality must undertake scored assessment for the purpose of achieving a study score. This study score can contribute directly to the ATAR, either as one of the student's best four studies (the primary four) or as a fifth or sixth study.

*Please note that there is an associated cost of approximately \$400 per year to cover auspicing fees, study material and food levy. The recommended fees are subject to change.

VCE STUDIO ARTS

Rationale

The creative nature of the visual arts provides individuals with the opportunity for personal growth, the expression of ideas and a process for examining identity. Exhibitions of artworks offer an insight into the diverse interpretations of life and experiences of artists. Engagement with artworks facilitates creative thinking and the development of new ideas; it also supports connection and exchange within local, national and global communities.

VCE Studio Arts encourages and supports students to recognise their individual potential as artists and develop their understanding and development of art making. VCE Studio Arts broadens students' understanding of, and ability to engage with, artworks. It equips students with the knowledge and skills to pursue an art studio practice and follow tertiary and industry pathways in fine art, research and education. The study also offers students opportunities for personal development and encourages them to make an ongoing contribution to society and the culture of their community through lifelong participation in the making and viewing of artworks.

Structure

The study is made up of four units:

Unit 1: Studio inspiration and techniques

In this unit students focus on developing an individual understanding of the stages of studio practice and learn how to explore, develop, refine, resolve and present artworks. Students explore sources of inspiration; research artistic influences develop individual ideas and explore a range of materials and techniques related to specific art forms. Using documented evidence in a visual diary, students progressively refine and resolve their skills to communicate ideas in artworks.

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

Unit 2: Studio exploration and concepts

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

Through the study of art movements and styles, students begin to understand the use of other artists' work in the making of new artworks. Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand developments in studio practice. Using a range of art periods, movements or styles, students develop a broader knowledge about the history of art.

Unit 3: Studio practices and processes

In this unit students focus on the implementation of an individual studio process leading to the production of a range of potential directions. Students develop and use an exploration proposal to define an area of creative exploration. They plan and apply a studio process to explore and develop their individual ideas. For this study, the exploration proposal supports the student to identify a direction for their studio process. This process records trialing, experimenting, analysing and evaluating the extent to which art practices successfully communicate ideas presented in the exploration proposal. Students will select some of these potential directions from which to develop at least two artworks in Unit 4.

The study of artists and their work practices and processes may provide inspiration for students' own approaches to art making. Students investigate and analyse the response of artists to a wide range of source material and examine their use of materials and techniques.

Unit 4: Studio practice and art industry contexts

In this unit students focus on the planning, production and evaluation required to develop, refine and present artworks that link cohesively according to the ideas resolved in Unit 3. To support the creation of artworks, students present visual and written evaluation that explains why they selected a range of potential directions from Unit 3 to produce at least two finished artworks in Unit 4. Once the artworks have been made, students provide an evaluation about the cohesive relationship between the artworks.

This unit also investigates aspects of artists' involvement in the art industry, focusing on a least two different exhibitions, that the student has visited in the current year of study with reference to specific artworks in those exhibitions. Students investigate the methods and considerations of the artist and/or curator involved in the preparation, presentation and conservation of artworks displayed in exhibitions in at least two different galleries or exhibitions.

Assessment outcomes

Outcomes define what students will know and be able to do as a result of undertaking the study. Units 1, 3 and 4 have three outcomes. Unit 2 has two outcomes. Each outcome will be assessed by a series of practical and written School Assessed Tasks (SATs).

Satisfactory completion

Demonstrated achievement of the set of outcomes specified for the unit.

Levels of achievement

Units 1 and 2

Individual school decision on levels of achievement.

Units 3 and 4

In the study of Studio Arts students' level of achievement will be determined by School Assessed Coursework, the School Assessed Task and the end-of-year examination. Percentage contributions to the study score in Studio Arts 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.

VCE VISUAL COMMUNICATION DESIGN

Rationale

Visual Communication Design can inform people's decisions about where and how they live and what they buy and consume. The visual presentation of information influences people's choices about what they think, what they need or want. The study provides students with the opportunity to develop informed, critical and discriminating approaches to understanding and using visual communications and nurtures their ability to think creatively about design solutions. Design thinking, which involves the application of creative, critical and reflective techniques, supports skill development in areas beyond design, including science, business, marketing and management.

The rapid acceleration of the capabilities and accessibility of digital design technologies has brought new challenges to visual communication design practices. Through the consideration of ethical and environmental sustainability issues, students are able to make informed choices that affect current and future practices. The study of Visual Communication Design can provide pathways to training and tertiary study in design and design-related studies, including communication, industrial and fashion design, architecture and media.

Aims

This study enables students to:

- Develop and apply drawing skills using a range of techniques
- Develop design thinking
- Develop a range of skills in selecting and applying media, materials and manual and digital methods to support design processes
- Apply a design process to create visual communications

- Understand how key design elements, design principles, media, materials and manual and digital methods contribute to the creation of their own visual language develop a capacity to undertake ongoing design thinking while conceiving, communicating and presenting ideas
- Understand how historical, social, cultural, environmental, legal, ethical and contemporary factors influence visual communications

Structure

The study is made up of four units.

Unit 1: Introduction to Visual Communication Design

Unit 2: Applications of visual communication within design fields

Unit 3: Visual Communication Design practices

Unit 4: Visual Communication Design development, evaluation and presentation

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.

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.

Duration

Each unit involves at least 50 hours of scheduled classroom instruction over the duration of a semester.

Unit 1: Introduction to Visual Communication Design

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to create messages, ideas and concepts, both visible and tangible. Students practice their ability to draw what they observe, and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications.

Through experimentation and exploration of the relationship between design elements and design principles, students develop an understanding of how they affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design styles. This research introduces students to the broader context of the place and purpose of design. Students are introduced to the importance of copyright and intellectual property and the conventions for acknowledging sources of inspiration.

In this unit students are introduced to four stages of the design process: research, generation of ideas, development of concepts and refinement of visual communications.

Unit 2: Applications of visual communication within design fields

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

Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They also investigate how typography and imagery are used in these fields as well as the communication field of design. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field. Students develop an understanding of the design process detailed on pages 10 and 11 of the Study Design as a means of organising their thinking about approaches to solving design problems and presenting ideas. In response to a brief, students engage in the stages of research, generation of ideas and development and refinement of concepts to create visual communications.

Unit 3: Visual Communication Design Practices

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

Students use their research and analysis of the process of visual communication designers to support the development of their own designs. They establish a brief for a client and apply design thinking through the design process. They identify and describe a client, two distinctly different needs of that client, and the purpose, target audience, context and constraints relevant to each need.

Design from a variety of historical and contemporary design fields is considered by students to provide directions, themes or starting points for investigation and inspiration for their own work. Students use observational and visualisation drawings to generate a wide range of design ideas and apply design thinking strategies to organise and evaluate their ideas. The brief and research underpin the developmental and refinement work undertaken in Unit 4.

Unit 4: Visual Communication Design development, evaluation and presentation

The focus of this unit is on the development of design concepts and two final presentations of visual communications to meet the requirements of the brief. This involves applying the design process twice to meet each of the stated communication needs.

Having completed their brief and generated ideas in Unit 3, students continue the design process by developing and refining concepts for each communication need stated in the brief. They utilise a range of digital and manual two- and three-dimensional methods, media and materials. They investigate how the application of design elements and design principles

creates different communication messages and conveys ideas to the target audience.

As students' revisit stages to undertake further research or idea generation when developing and presenting their design solutions, they develop an understanding of the iterative nature of the design process. Ongoing reflection and evaluation of design solutions against the brief assists students with keeping their endeavors focused.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision. Assessment of levels of achievement for these units will not be reported to the Victorian Curriculum and Assessment Authority. Schools may choose to report levels of achievement using grades, descriptive statements or other indicators.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4.

In VCE Visual Communication Design student's level of achievement will be determined by School Assessed Coursework, a School Assessed Task and an end-of-year examination. The Victorian Curriculum and Assessment Authority will report student's level of performance on each assessment component as a grade from A+ to E or UG (ungraded). To receive a study score, students must achieve two or more graded assessments and receive S for both Units 3 and 4. The study score is reported on a scale of 0–50; it is a measure of how well the student performed in relation to all others who took the study. Teachers should refer to the current VCE and VCAL Administrative Handbook for details on graded assessment and calculation of the study score.

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

- Unit 3 School Assessed Coursework: 25 per cent
- Unit 3 & 4 School Assessed Task: 40 per cent
- End-of-year examination: 35 per cent

Details of the assessment program are described in the sections on Units 3 and 4 in this study design.