



# DEFINING FUTURE PATHWAYS

THE SENIOR YEARS





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### Introduction



This Guide contains information about The Victorian Certificate of Education (VCE) and the Victorian Certificate of Education Vocational Major (VCEVM).

Emerald Secondary College also offers access to a wide range of Vocational Educational & Training (VET) subjects, offered onsite at Emerald, at other schools as part of the Mullum Cluster and TAFE institutions.

This Guide should be used by students to help plan their pathway through senior school by selecting combinations of subjects which compliments their strengths, interests and pathway aspirations and goals.

Throughout the course selection process students are supported through targeted pathways information sessions, individual counselling, information evenings and the Future Options Expo at school. There are also numerous careers and pathways excursions for students, and on-demand support for students and families as needed.

The Senior School Student Handbook lists the rules set by VCAA and Emerald Secondary College for the VCE and VCEVM at Emerald Secondary College. The Handbook also outlines College policies and procedures for promotion, acceleration and successful completions of the VCE and VCEVM.

**VCAA** Website

For further information please contact the College and ask to speak to someone in the following areas:

General Office: 5968 5388 Year 12 Learning Engagement Leader

Senior School Leader Year 11 Learning Engagement Leader

Wellbeing Co-ordinator

Pathways Leader

VET Co-ordinator www.vcaa.vic.edu.au

ESC Careers Website VTAC Website www.emeraldsccareers.com www.vtac.edu.au

**Domains** 

English

VCE, VCE/VM

Mathematics

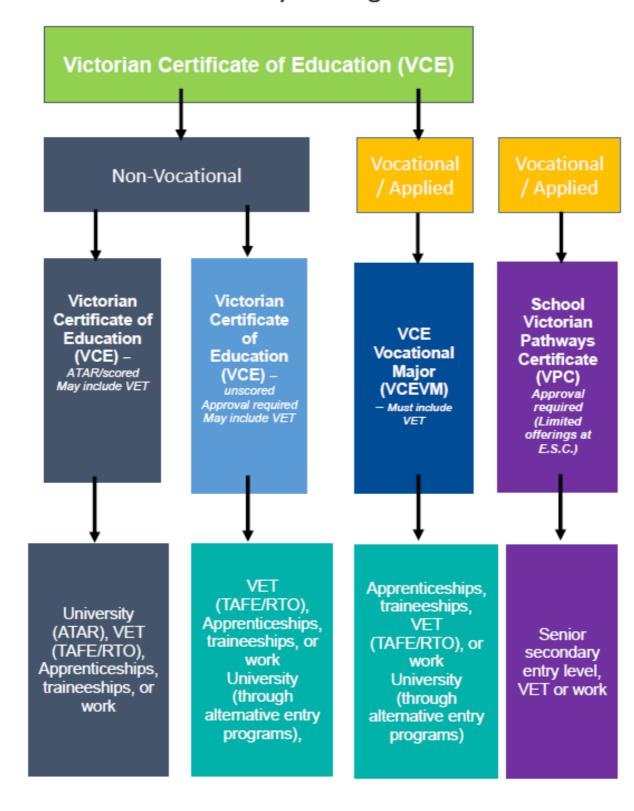
Science

**Humanities** 

**Health & PE** 

The Arts
Technology

### Senior Pathways through Year 11 & 12



## **Glossary of Terms**



ATAR	Australian Tertiary Admission Rank (previously ENTER). Used by Universities and TAFEs to select students for entry into their courses
GAT	General Achievement Test, completed by all students doing a VCE Units 3 and 4 sequence or a scored VET subject. This includes VCE VM students.
N	"Not satisfactory" result for a unit. This will lead to pathway discussions.
NA	Not assessed (work not submitted)
OUTCOME	What you are expected to know and be able to do by the time you have finished a VCE Unit
S	Satisfactory completion for a Unit or piece of work:  Met required standard,  Work was submitted on time,  The work is clearly the student's own, and  Student has observed VCAA and College rules, including attendance
SAC	School Assessed Coursework
SAT	School Assessed Task
SBAT	School Based Apprenticeship or Traineeship
UG	Ungraded result for a piece of work:  Did not meet required standard,  Work was not submitted on time,  The work is clearly not the student's own, or  Student has not observed VCAA and College rules, including attendance
VCAA	Victorian Curriculum and Assessment Authority - manages the VCE, VCEVM
VCE	Victorian Certificate of Education
VCEVM	Victorian Certificate of Education Vocational Major
VET	Vocational Education and Training
VTAC	Victorian Tertiary Admissions Centre - calculates the ATAR and processes applications for Tertiary entrance

# Sample Program: VCE

Year11	Year 12
Unit 1 & 2 English	Unit 3 & 4 English
Unit 1 & 2 General Maths	Unit 3 & 4 General Maths
Unit 1 & 2 Biology	Unit 3 & 4 Biology
Unit 1 & 2 Psychology	Unit 3 & 4 Psychology
Unit 1 & 2 Legal Studies	Unit 1 & 2 Legal Studies
Unit 1 & 2 Physical Education	

### What will be your future pathway?



### Subject Selection and Further Study

Before choosing subjects, it's important to consider what pathway students would like to pursue. When deciding which subjects to take at VCE level, students should consider:

- What are my skills and abilities?
- What are my likes and dislikes?
- What are my best school subjects?
- Do the subjects I wish to do form part of a viable program?

Your My Career Portfolio is an important part of developing your senior school course. Students should ensure that their Career Action Plans, etc., are completed to assist with course selection.

#### Prerequisites for Further Study

Students who intend taking further study will need to be aware of the prerequisites set by tertiary institutions. Details of all tertiary courses and the majority of full time TAFE courses are provided on the VTAC website under "Course Search". Many University courses ONLY allow entry when particular subjects are successfully completed at VCE level. Some courses require specific subjects at UNIT 1 and 2 level as well as at UNIT 3 and 4 level so it is important to find out about likely career prospects prior to selecting Year 11 subjects. Details are available from the Pathways Leader.

VTAC publications can be downloaded at www.vtac.edu.au/publications.html.

#### How to use this Course Guide

Consider....

- Are you best to do a VCE or VCEVM pathway?
- Which subjects are you interested in?
- Check the unit descriptions for those units.
- What are the prerequisites for the tertiary courses you are interested in?
- Should you include a Year 12 subject as part of your Year 11 program?

Students who don't have a clear idea of their career path are advised to develop a program that will allow for two or more different pathways. Seek assistance if you are unsure of your career direction or subject choice.

#### Additional Course Requirements and costs

Some subjects have fees associated with them that cover consumables, materials, excursions etc. These additional costs are covered in the subject description in this booklet. Please note that, at the time of publication, these fees were correct. However, they may be subject to change dependent on the provider/supplier.

The Careers Hub and ESC Career website (www.emeraldsccareers.com) contains many resources such as:
Handbooks from tertiary institutions
The Job Guide
VTAC guides
Senior School Course Selection Guide

Careers tests

Lists of useful websites

Our Pathways Leader is also available to talk with you and/or your parents and help you to find accurate information on which to base your decisions.

### Victorian Certificate of Education (VCE)



The Victorian Certificate of Education is a two-year program studied in a student's final years of schooling, usually in Year 11 and Year 12. At the end of the VCE students can receive an ATAR, or Australian Tertiary Admissions Ranking, which is used to apply for a University place. The VCAA (Victorian Curriculum and Assessment Authority) oversees the delivery of the VCE in schools and educational institutions.

The VCE is most commonly completed over two years, however there is no limit to the number of years you may take to accumulate unit results towards achieving the Certificate. If you require an ATAR score you must complete the program within 3 years.

The VCE is made up of many different units of study. A study is a subject, for example, English or Biology. It is usually made up of four units (Units 1, 2, 3 and 4), each of which is a semester in length. Units 3 and 4 of a study must be completed as a sequence (within the same year).

#### **VCE Program**

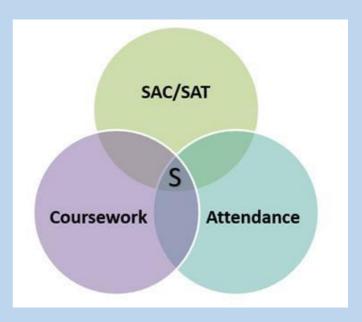
Students in Year 11 study six Unit 1 & 2 subjects. Students in Year 12 study 5 Unit 3 & 4 subjects. Some students successfully apply to complete accelerated studies in Year 10, 11 and 12, which can positively add towards a student's final ATAR.

#### Satisfactory Completion of the VCE

To successfully complete a Unit in the VCE, a student must successfully complete all coursework, SACs/SATs (scored assessment) and meet the minimum College attendance requirement (90%).

To meet the requirements of the VCE, each student must satisfy the following:

- demonstrate all learning outcomes in a minimum of 16 Units (achieve an "S"), which must include:
  - o 3 units of English or English equivalent (ESL, Literature or Language), two of which must be a Unit 3 and 4 sequence
  - o 3 sequences of Unit 3 and 4 (Year 12) studies other than English



#### Calculation of the ATAR (Australian Tertiary Admissions Rank)

An ATAR aggregate is calculated by adding:

- a student's best ATAR Subject Score in any one of the English studies, plus
- the ATAR Subject Scores of the students next best three permissible studies, plus
- 10 per cent of the ATAR Subject Score for a fifth study (where available), plus
- 10 per cent of the ATAR Subject Score for a sixth study (where available).

All VCE study scores are scaled to adjust for the fact that it is more difficult to obtain a high study score in some studies than others. The scaled study scores are called ATAR Subject Scores.

The total score will be used to place each student in a percentile rank, thus forming their ATAR. The highest rank is 99.95. Ranks below 30.00 will be reported as 'less than 30'. If a student receives a rank of 75.00, it means that they have achieved an overall result equal to or better than 75% of the applicants for that year. The rank provided by the ATAR places every student in Victoria along a continuous line from highest (99.95) to lowest (0.00).

### VCE Unit Offerings 2024



# Note: Classes running will be dependent on student numbers gathered during the Course Selection process.

#### Year 12 subjects are only offered if the subject ran at Year 11 this year.

Selections must comply with the Satisfactory requirements listed earlier in this handbook.

#### **English**

English p.15 Literature p.16

#### Mathematics -

Foundation Mathematics p.17 General Mathematics p.19 Mathematical Methods p.20

#### The Arts

Art Making & Exhibiting p. 21
Media p.22
Music Performance p.23
Theatre Studies p. 24
Visual Communication Design p.25

#### **Business Studies**

Business Studies p.26 Legal Studies p.27

#### **Health and Physical Education**

Health & Human Development p. 28 Outdoor & Environmental Studies p.29 Physical Education p.30

#### **Humanities**

#### Science

Biology p. 35 Chemistry p.36 Physics p.37 Psychology p.38

#### **Technology**

Yr 11 – Product Design and Technology

Wood p. 39

Food Studies p.40

Information Technology

Yr 11 – Applied Computing Units 1 & 2 p. 41

Yr 12 – Software Development Units 3&4 (tbc) p.42

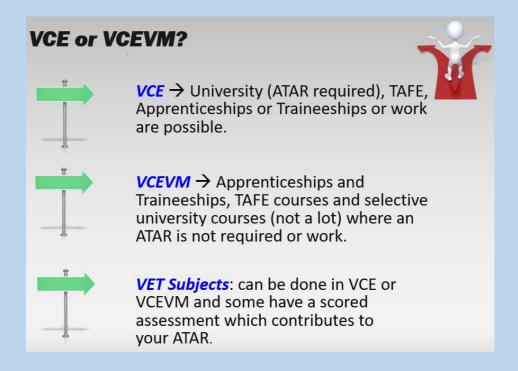
Yr 11 Systems Engineering p. 42

### **VCE Vocational Major Units**

<u>Literacy – p.43</u> VCE Foundation Mathematics – p. 44 Personal Development Skills – p. 46 Work Related Skills – p.47

### The VCE Vocational Major (VM)





#### The VCE Vocational Major (VM) is a vocational and applied learning program within the VCE:

- Designed to be completed over a minimum of two years.
- Giving students greater choice and flexibility to pursue their strengths and interests and develop the skills and capabilities needed to succeed in further education, work and life.
- It prepares students to move into apprenticeships, traineeships, further education and training, university (via non-ATAR pathways) or directly into the workforce.

The purpose of the VCEVM is to provide students with the best opportunity to achieve their personal goals and aspirations in a rapidly changing world by:

- Equipping them with the skills, knowledge, values and capabilities to be active, informed citizens, lifelong learners, confident and creative individuals; and
- Empowering them to make informed decisions about the next stages of their lives through real life workplace experiences.

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

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

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

Students must include VET in their studies but can also include other VCE subjects and can receive Structured Workplace Learning recognition.

Students usually attend school 3 days per week with a day at TAFE and a day of Structured Workplace Learning.



Vocational Major		
Monday Emerald SC		
Tuesday	Emerald SC	
Wednesday	TAFE/Work Placement	
Thursday	TAFE/Work Placement	
Friday	Emerald SC	

# Applying for the VM - ENTRY VIA APPLICATION & INTERVIEW (25 places ONLY)

- Career Action Plan (CAP) fully completed
- TAFE Course Chosen (Application with USI)
- Employment Plan for Structured Workplace Learning (SWL) day per week of work
- Currently meeting attendance, behaviour and academic benchmarks in Year 10

All students who are accepted into the College VM program will need to enrol in a VET subject OR an SBAT. Please note that there may be additional charges for undertaking the courses that are set by the TAFE/RTO (Registered Training Organisation), e.g. VFA Training, and student's complete the RTO's application process to be accepted. VET places are limited and external providers have strict cut-off dates and fees which are not controlled by the College.

#### Costs of the VM

Students are required to pay the Materials fee of their VET course – see VET Costs further on. The Tuition fee is covered by the College and is usually double the Materials fee.

# Sample program: VCE-VM

YEAR 11	YEAR 12
VCE-VM Unit 1&2 Literacy	VCE-VM Unit 3&4 Literacy
VCE Unit 1&2 General Maths	VCE Unit 3&4 General Maths
VCE-VM Unit 1&2 PDS	VCE VM Unit 3&4 PDS
VCE-VM Unit 1&2 WRS	VCE VM Unit 3&4 WRS
SBAT Unit 1&2 Electrotechnology	SBAT Unit 3&4 Electrotechnology
VET Unit 1&2 SWL Recognition	VET Unit 1&2 SWL Recognition
*This student would not be eligible for an ATAR	

### School Based Apprenticeship & Traineeship (SBAT)

In this program students receive one day of paid, on-the-job training with an employer, perhaps one day of training at a TAFE and the other days at school completing their VCEVM or VCE. There may be additional training at weekends or during school holidays. The SBAT will gain the student credit towards their VCEVM.

All apprenticeship areas can be an SBAT, <u>as long as a suitable employer is found</u>. Not all employers have the capacity to take on a new apprentice. Should a student wish to participate in this program, seeking a suitable, willing employer is the first step. If an employer is found, contact the Careers Coordinator to further facilitate the process.

You may also wish to contact our Pathways Leader, VET/VCEVM Coordinator or Senior School Leader to discuss these programs.

Some examples of industry areas suitable for SBAT's are: Children's Services, I.T., Hospitality, Retail, Horticulture, Engineering, Electrical, Building and Construction, Office Administration, Hairdressing, Cabinet Making and Sport and Recreation.

### Vocational Education and Training (VET) Program



VET is a senior study that enables secondary students to complete a national recognised qualification whilst at school. Students can combine a VET with either their VCE or VCEVM program.

VET is usually a two-year program and is completed at another school as part of the VET in Schools Program, or at a TAFE or tertiary institution. VET allows students credit towards further study and/or employment and focuses on industry specific skills. A VET subject compliments a student's chosen pathway.

#### VET and the VCE

VET courses are incorporated into the VCE and <u>can</u> contribute to the calculation of the ATAR. Note that not all VET studies contribute to the ATAR so make sure you have chosen one which matches your pathway and is a scored VET subject if completing the VCE.

#### **VET and VCEVM**

Students completing VCEVM <u>must</u> study a VET course related to their chosen pathway. The VET component of the VCEVM must be completed successfully for a student to be awarded their VCEVM certificate. VET courses have several other requirements that must be adhered to, including attendance, specialist equipment etc.

The following VET courses and locations are approved for Emerald Secondary College students to be undertaken in 2023. Please note that courses run based on student demand and other factors including the availability of rooms and equipment.

Cert II and III in Acting (Screen) – MBCTA Youth Centre

Cert III in Allied Health Assistance - Box Hill TAFE

Cert II Animal Care - Box Hill TAFE

Cert II in Automotive Studies (Mechanics) – Ringwood Trade Training Facility

Cert III in Early Childhood (partial completion) – Box Hill TAFE Cert II in Interior Decoration Retail Services – Box Hill TAFE

Cert II in Business – Fairhills High School or Swinburne (KIOSK)

Cert II in Building and Construction (Carpentry) – St Joseph's

Cert II in Community Services – Box Hill TAFE or Swinburne Cert II in Electrotechnology – Box Hill TAFE or Swinburne or St Joseph's Cert II in Horticulture – Swinburne (KIOSK)

Cert II in Engineering Studies - Ringwood Trade Training or Swinburne

Cert II in Hospitality - Aquinas College, Mater Christie College or William Angliss

Cert II in Hospitality (Kitchen Operations) – Aquinas or Belgrave Heights CS, or William Angliss

Cert II in Make-up Services - Box Hill TAFE

Cert III in Music, Music Industry or Live Production (Performance) - Scoresby Secondary College

Cert III in Music, Music Industry or Live Production (Sound)-

Aquinas or Upwey High School

Cert II in Plumbing – Swinburne or St Joseph's

Cert III in Beauty Services – Box Hill TAFE or Inspiring Beauty

Cert II in Retail Cosmetics – Inspiring Beauty

#### **VET Costs**

VET programs may incur a materials cost ranging between \$0.00 and \$550.00 depending on the program. Costs are calculated based on equipment requirements.

Material costs cover materials used or taken home by the student. These are set by the providers and change every year. These fees must be paid in full to ESC before a student will be enrolled into a VET course.

Tuition costs cover the teaching component of the subject and are paid for by the College. This fee is at least double the cost of the materials fee. Students are expected to complete an entire year in their VET course. <u>If a student withdraws</u> <u>from a VET course after the cutoff date, there is no refund of the materials fee from the provider, and the College still pays the tuition fee.</u>

# **Subject Pathways**



Year 9 & Year 1	0	Year 11 (Unit 1 & 2)	Year 12 (Unit 3 & 4)
English			
		English	English
Year 10 core English/Enrichmen	t English	Literature	Literature
Mathematics			
		Favordation Mathamatica	Can aval Mathagratica
Year 10 core Mathematics/Enric	chment Mathematics	Foundation Mathematics General Mathematics	General Mathematics Mathematical Methods
Tear 10 core Mathematics/Emile	chilient iviathematics	General Mathematics	General Mathematics
Year 10 Enrichment Mathemati	CS	Mathematical Methods	Mathematical Methods
Science			
(Chemistry)	Getting a reaction	Chemistry	Chemistry
(Biology) Ger	netics and Biotechnology	Biology	Biology
	Into the mind, Psych of		
(Psychology)	you	Psychology	Psychology
(Physics)	Advanced rocketry STEM	Physics	Physics
Business Studies			
The psychology of business	Trading and the world	Business Management	Business Management
The poyoners of a summer	Politics & International		
Famous Legal cases	Law	Legal Studies	Legal Studies
Humanities			
Spaceship Earth	World Sustainability	Geography	Geography*
Murders, Mysteries, Conspir.	Disasters & Destruction	Empires/Ancient History	Ancient History
History of Sport,	War and Freedom		History Revolutions
Health/Physical Education			
Core Health/PE	Health Matters	Health & Human Development	Health & Human Development
Super Coach, Sport Science	The pursuit of Fitness	Physical Education	Physical Education
Outdoor Education	Duke of Edinburgh Award	Outdoor & Environmental Studies	Outdoor & Environmental Studies
Digital Technologies			
Building Bots, Game on	Coding and Computing	Applied Computing	Software Development (tbc)
Design and Technologies		, pp. sempermo	()
Let's Get baking, Food for life	Food Travels	Food Studies	Food Studies
Fabulous Fashion	Producing Timber	Product Design & Technology	Product Design & Technology
Talent with tools		wood	wood*
STEM engineering		Systems engineering	Systems Engineering*
Visual Arts			
Play with Clay, Big ideas in Art	Pop, Print & Paint		
The world through the Lens	Fantastic Plastics		
Light and Studio	Communication and Client		
Industrial and environmental		Art Making and Exhibiting	Art Making and Exhibiting
design	0.14.1	Vis. Communication Design	Vis.Communication design
Media Studies. Watch it	Get Animated, Film It	Media Studies	Media Studies
Performing Arts			
Realism/Weirdism	Tragic/Comedy	Theatre Studies	Theatre Studies*
	Playing out loud		Music Performance

### **VCE Subject Descriptions - English**



### Subject: English

#### **Description:**

All students must undertake at least four units of English studies and pass a minimum of three of the four units including BOTH Units 3 & 4 as part of the requirements for the award of the VCE. The three units of English may be selected from English Units 1 to 4 and Literature Units 1 and 4. Students may study both Literature and English.

#### **Learning Focus:**

#### Unit 1

In this unit, students engage in reading and viewing texts with a focus on personal connections with the story. They discuss and clarify the ideas and values presented by authors through their evocations of character, setting and plot, and through investigations of the point of view and/or the voice of the text. They contemplate the ways a text can present and reflect human experiences, and how stories or aspects of stories resonate with their own memories and lives. Further, students engage with and develop an understanding of effective and cohesive writing. They apply, extend, and challenge their understanding and use of imaginative, persuasive and informative text through a growing awareness of situated contexts, stated purposes and audience.

#### Unit 2

In this area of study, students develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing, to further open possible meanings in a text, and to extend their writing in response to text. Students read or view a text, engaging with the ideas, concerns, and tensions, and recognise ways vocabulary, text structures, language features and conventions of a text work together to create meaning. Through discussions about representations in a text, they examine the ways readers understand text considering its historical context, and social and cultural values. Further, students consider the way arguments are developed and delivered in many forms of media. Through the prism of a contemporary and substantial local and/or national issue, students read, view, and listen to a range of texts that attempt to position an intended audience in a particular context.

#### Unit 3

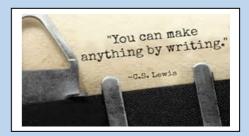
In this unit students read and respond to texts analytically and creatively. Students analyse explicit and implicit ideas, concerns and values presented in a text, informed by vocabulary, text structures and language features and how they make meaning. They read, respond to and create their own texts. On completion of this unit, students should be able to produce an analytical interpretation of a selected text and demonstrate effective writing skills by producing their own texts, designed to respond to a specific context and audience to achieve a stated purpose; as well as explain their decisions through writing process.

#### Unit 4

In this unit students analyse the construction of argument in texts. Students also create an oral presentation intended to position audiences in a particular way about an issue currently debated in the media. On completion of this unit, students should be able to produce an analytical response to a text, along with language analysis and an oral presentation.

#### **Assessment:**

Units 1 & 2: School based assessment will include: creative response, text response essays, reflective writing, oral presentation, language analysis tasks and an exam in each semester.



Units 3 & 4: School based assessment will include: text response essays, an oral presentation, a language analysis task, comparative analysis essay and at least one piece of original creative writing.

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

Additional Cost: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/english/index.aspx

### **VCE Subject Descriptions - English**



### Subject: Literature

#### Description:

VCE Literature provides opportunities for students to develop their awareness of other people, places and cultures and explore the way texts represent the complexity of human experience. Students examine the evolving and dialogic nature of texts, the changing contexts in which they were produced and notions of value. They develop an understanding and appreciation of literature, and an ability to reflect critically on the aesthetic and intellectual aspects of texts.

#### **Learning Focus:**

#### Unit 1

In this unit, students consider how language, structure and stylistic choices are used in different literary forms and types of text. They consider both print and non-print texts, reflecting on the contribution of form and style to meaning. Students reflect on the degree to which points of view, experiences and contexts shape their own and others' interpretations of text. Further, students explore the concerns, ideas, style, and conventions common to a distinctive type of literature seen in literary movements or genres.

#### Unit 2

In this unit, students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts, and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation. Further, students focus on the historical, social, and cultural context of a chosen texts and reflect on representations of a specific time period and/or culture within a text.

#### Unit 3

In this unit, students focus on how the form of a text contributes to its meaning. Students explore the form of a set text by constructing a close analysis of that text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaptation. Further, students explore the different ways we can read and understand a text by developing, considering, and comparing interpretations of a set text.

#### Unit 4

In this unit, students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. Further, students focus on a detailed scrutiny of the language, style, concerns, and construction of texts. Students attend closely to textual details to examine the ways specific passages in a text contribute to their overall understanding of the whole text.

#### **Assessment:**

Unit 1 and 2 assessment is varied and includes one or more of the following: a reading journal, text analysis, oral presentation, comparative essay, critical essay, a piece of creative writing and a film comparison.

Unit 3 and 4 assessment includes: a close textual analysis, an analysis of form, a contextual analysis, a creative response, a close passage analysis and a close analysis of an adapted text.

Unit 3: School assessed Coursework - 25%
Unit 4: School assessed Coursework - 25%

End-of-year examination - 50%

Additional Cost: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/literature/literatureindex.aspx

### VCE Subject Descriptions – Mathematics



### Subject: VCE Foundation Mathematics - Units 1 & 2

#### **Description:**

#### Units 1 and 2

Foundation Mathematics Units 1 and 2 focus on providing students with the mathematical knowledge, skills, understanding and dispositions to solve problems in real contexts for a range of workplace, personal, further learning, and community settings relevant to contemporary society.

This course allows students to continue to use the mathematical skills in real life situations. The areas of study include Measurement & Geometry, Statistics and Design

#### **Learning Focus:**

#### Unit 1

Areas of Study 1: Patterns and number

- estimation,
- the use and application of different forms of numbers and calculations,

#### Area of study 2: Data

• collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts, including consideration of suitable forms of representation and summaries.

#### Area of study 3: Financial and consumer mathematics

- personal financial services and information such as borrowing, bills and banking
- income calculations including rates of pay and payslips

#### Area of study 4: Measurement

- the use and application of the metric system
- related measurement in a variety of domestic, societal, industrial and commercial contexts, including consideration of accuracy.

#### Unit 2

Area of study 1: Algebra number and structure

- construction, use and interpretation of formulas and symbolic expressions to describe relationships between variables and to model and represent generalisations and patterns
- estimation, approximation and reasonableness of calculations and results.

#### Area of study 2: Data analysis statistics and probability

- creation of a range of charts, tables and graphs to represent and compare data
- interpretation, summary and comparison of related data sets to report findings and draw possible conclusions.

#### Area of study 3: Financial and consumer mathematics

- products and services such as comparison of health products, informed spending choices, decision making according to criteria
- managing money: earning and spending, life-stage financial planning, servicing of current and future commitments such as HECS-HELP debt, child-care support and other benefits
- local, community and national financial and economic data and trends over time (national/community/ local) such as CPI, interest rates, wages and house prices.

#### Area of study 4: Space and measurement

- location, maps, directories and digital maps including birds-eye and street views
- routes and itineraries, including location and direction, speeds, distances and estimated travel times, for example daily work route and diversions, and itinerary for travel.

#### Common Assessment Tasks:

<u>Unit 1 and 2</u> Students work through a series of workbooks and will be required to do an analysis task, applications tasks and tests

**Equipment: Scientific Calculator Additional Cost: \$20.00 per year** 

### VCE Subject Descriptions – Mathematics

### Subject: VCE Foundation Mathematics - Units 3 & 4



#### Description:

Foundation Mathematics Units 3 and 4 focus on providing students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, contemporary data displays, diagrams, plans, geometric objects and constructions, algebra, algorithms, measures, 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.

#### **Learning Focus:**

Unit 3 and 4

Areas of Study 1: Patterns and number

- mathematical conventions notations for number and number operations
- symbolic expressions, equations and formulas
- estimation and approximation including interval estimates, rounding, significant figures, leading-digit approximations, floor and ceiling values and percentage error.

#### Area of study 2: Data

- development and specification of data collection requirements and methods, including consideration of audience and purpose of data collection, errors and misrepresentations in statistics
- collection and modelling of data, including the construction of tables or spreadsheets and graphs to represent data and correct representations

#### Area of study 3: Financial and consumer mathematics

- money management including investments and loans, credit and debit, comparing mortgages versus rental costs and debt consolidation
- taxation systems at the personal and business level
- income and expenditure calculations such as GST, invoicing and BAS
- comparison of financial products and services such as insurance
- informal consideration of financial risk at the national and global level (short, medium and long term)

#### Area of study 4: Measurement

- · spatial and geometric constructions including transformations, similarity, symmetry and projections
- calculations of enlargement and reduction using scaling techniques for two-dimensional and three-dimensional plans, diagrams and models

#### **Common Assessment Tasks:**

<u>Unit 3 and 4 Students</u> work through a series of workbooks and will be required to do an analysis task, applications tasks and tests.

**Equipment** 

Scientific Calculator

Additional Cost: \$20.00 per year

### **VCE Subject Descriptions - Mathematics**



### **Subject: General Mathematics**

#### **Prerequisites:**

#### Units 1 and 2

General Mathematics helps you to apply mathematics to everyday life as it gives you skills you can use outside of school. Students are expected to have studied General Mathematics Units 1 and 2.

#### **Description:**

#### Units 1 and 2

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists, tables and matrices, diagrams and geometric constructions, algorithms, algebraic manipulation, recurrence relations, equations and graphs, with and without the use of technology. Students should be competent with mental and by-hand approaches to estimation and simple calculations. Despite the complex names for the topics this subject serves as a good mid-range level of mathematics for everyone and builds skills that are useful for most carriers that need mathematics.

#### Units 3 and 4

Units 3 and 4 consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. The Core comprises 'Data analysis' and 'Recursion and Financial modelling'. The Applications comprises two modules to be completed in their entirety: Geometry and Measurement and Matrices.

#### **Learning Focus:**

#### Unit 1

- Data analysis, probability and statistics
- Algebra, number and structure
- Functions, relations and graphs
- Discrete mathematics

#### Unit 2

- Data analysis, probability and statistics
- Algebra, number and structure
- Functions, relations and graphs
- Space and measurement

#### Unit 3

- Data analysis
- Recursion and financial modelling

#### Unit 4

- Graphs and networks
- Matrices

#### Assessment:

#### Unit 1 and 2

Assessment tasks include a number of the following activities: analysis tasks, application tasks, topic tests and semester exams.

#### Unit 3 and 4

The two final exams for General Mathematics account for 60% of the final assessment. The other 40% is completed at school. Students complete a range of assessment tasks including applications tasks and analysis tasks.

#### Unit 3 and 4:

Unit 3: School assessed Coursework 20% Unit 4: School assessed Coursework 14% End-of-year examination 66%

#### **Equipment**

A TI-nspire (CAS) calculator is compulsory.

#### Additional Costs: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/generalmathematics/Pages/Index.aspx

### **VCE Subject Descriptions - Mathematics**

### **Subject: Mathematics Methods**



#### **Prerequisites**

For Unit 1 and 2, students are expected to have successfully completed Year 10 Enrichment Mathematics to a high level. Unit 3 and 4 - it is expected students have successfully completed Mathematical Methods Units 1 and 2.

#### **Description:**

#### Units 1 and 2

Mathematical Methods Units 1 and 2 provide an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. They are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units.

#### Units 3 and 4

Mathematical Methods Units 3 and 4 are completely prescribed and extend the introductory study of simple

Unit 1	Unit 2
Reviewing linear relations	Exponential functions and logarithms
Coordinate geometry and linear relations	Circular functions
Quadratics	Rates of change
A gallery of graphs	Differentiation and antidifferentiation of polynomials
Functions and relations	Integration
Polynomials	
Transformations	

elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability

Unit 3	Unit 4
Functions and relations	Integration
Coordinate geometry and matrices	Discrete random variables and their probability distribution
Transformation	The binomial distribution
Polynomials	Continuous random variables and their probability
	distributions
Exponential logarithmic functions	The normal distribution
Circular functions	Sampling and estimation
Differentiation	

and statistics, and their applications in a variety of practical and theoretical contexts.

### **Learning Focus:**

#### Assessment:

#### Unit 1 and 2

Assessment tasks include a number of the following activities: analysis tasks, application tasks, topic tests and semester exams.

Unit 3	School assessed Coursework	17%	Unit 3 and 4: There are two end of year
Unit 4	School assessed Coursework	17%	exams of 1 hour (technology free) and 2 hours
End-of-year examinat	ion	66%	(technology allowed) which account for 66%

of the final assessment. The other 34% of assessment is school based and includes application tasks, analysis tasks and topic tests.

#### **Equipment**

A TI-nspire (CAS) calculator is compulsory.

Additional Costs: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/mathematics/cas/casindex.aspx



### Subject: Art Making and Exhibiting

#### Description:

VCE Art Making and Exhibiting introduces students to the methods used to make artworks and how artworks are presented and exhibited. Students use inquiry learning to explore, develop and refine the use of materials, techniques and processes and to develop their knowledge and understanding of the ways artworks are made. They learn how art elements and art principles are used to create aesthetic qualities in artworks and how ideas are communicated through visual language. Their knowledge and skills evolve through the experience of making and presenting their own artworks and through the viewing and analysis of artworks by other artists.

Visiting and viewing exhibitions and displays of artwork is a necessary part of this study. It helps students understand how artworks are displayed and exhibitions are curated. It also has an influence on the students' own practice and encourages them to broaden and develop their own ideas and thinking around their own art making. A strong focus on the way we respond to artworks in galleries, museums, other exhibition spaces and site-specific spaces is integral to study and research in VCE Art Making and Exhibiting. The way institutions design exhibitions and present artworks and how they conserve and promote exhibitions, are key aspects of the study.

#### **Learning Focus:**

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

This Unit explores the characteristics and properties of materials and demonstrate how they can be manipulated to develop subject matter and represent ideas in art making. Students make and present at least one finished artwork and document their art making in a Visual Arts journal, research Australian artists and present information about them in a format appropriate for a proposed exhibition.

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

In this unit students select a range of artworks from an exhibition and other sources to design their own thematic exhibition. Students explore and progressively document the use of art elements, art principles and aesthetic qualities to make experimental artworks in response to a selected theme. Students are also asked to progressively document art making to develop and resolve subject matter and ideas in at least one finished artwork.

#### Unit 3 – Collect, extend and develop

Students are asked to collect information from artists and artworks in specific art forms to develop subject matter and ideas in their own art making. They make artworks in specific art forms, prepare and present a critique, and reflect on feedback. Students then research and plan an exhibition of the artworks of three artists.

#### Unit 4 - Consolidate. Present and conserve

On completion of this unit students are to refine and resolve at least one finished artwork in a specific art form and document the materials, techniques and processes used in art making. They also plan and display at least one finished artwork in a specific art form, and present a critique. Students are required to understand the presentation, conservation and care of artworks, including the conservation and care of their own artworks.

#### Assessment:

#### Unit 1 and 2:

Assessment tasks include; a visual journal containing design explorations, artworks, written responses and end of semester exams.

#### Unit 3 and 4:

- 1. School-assessed Coursework Units 3 and 4 (10%)
- 2. School-assessed Task Units 3 and 4 (60%)
- 3. End-of-year examination (30%)

Additional Costs: \$110.00 per year

VCAA website:

https://www.vcaa.vic.edu.au/Pages/vce/studies/studioarts/studioindex.aspx





### Subject: Media

#### **Description:**

Students examine how and why the media constructs and reflects reality and how audiences engage with, consume, read, create and produce media products.

#### Unit 1 – Representation, Media form in production and Australian stories

Students develop an understanding of the relationship between the media and its audiences, and the representations that are constructed to engage with them. Students study a film narrative in relation to codes and conventions and then develop practical skills by producing a short narrative project of their own. Students analyse the construction of Australian stories and how they have changed over the years.

#### Unit 2 - Narrative Style and Genre, Narratives in production and Media and change

Students learn to analyse the intentions of media creators and producers and discuss influences of narratives on the audience in different media forms. They work to apply the media production process to create, develop and construct narratives and discuss the impact that new media technologies have on society, audiences, the individual, media industries and institutions.

#### Unit 3 - Narrative and Ideology and Media Production Design

In this unit students develop an understanding of production and story elements and how they work together to structure meaning in narrative texts. They examine an audience's engagement with a text, and identify aspects of reception context. Students also undertake two practical exercises, which develop their skills for their major media production. They also plan their media production in a chosen media form for a specific audience.

#### Unit 4 - Media: Agency and Control

In this unit students analyse the relationships between media texts, social values and discourses. They examine how changes in society's discourse can impact the representations in media texts. They also complete their major media product that they planned for in Unit 3. Through the analysis of various case studies, research methods and media texts, they use various communication theories to question the possible nature and extent of media influence.

#### **Learning Focus:**

Unit 1 - Area of study 1. Representation

Area of study 2: Media forms in production

Area of study 3: Australian stories

Unit 2 - Area of study 1: Narrative style and genre

Area of study 2: Narratives in production

Area of study 3: Media and change

Unit 3 - Area of Study 1: Narrative and ideology

Area of Study 2: Media Production

Unit 4 - Area of Study 1: Agency and control

#### Assessment:

#### Unit 1 and 2

Students will be assessed through a variety of tasks. Their theoretical and practical skills will be assessed using tasks such as

productions, extended/short responses, written reports, structured questions, research tasks and oral presentations.

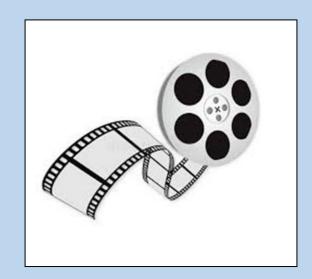
#### Unit 3 and 4:

Unit 3: School assessed Coursework 10% School assesses task.

Unit 4: School assessed Coursework 10% 40% SAT End-of-year examination 40%

Note: Students taking Media will require editing software which is on the Booklist Additional Costs: \$70.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/media/mediaindex.aspx





### Subject: Music Performance

#### **Prerequisites:**

It is highly recommended that students undertake Year 9 and 10 music studies as a pre-requisite to enrolling in this course study. Instrumental Lessons are also highly recommended.

#### Description:

Music Performance is a creative subject that focuses on the development of a student's personal and corporate performance skills whilst incorporating an informed use of the theoretical and technical aspects of music. Students gain skills in: Performance Development (solo and group), Musicianship, Improvisation, Teamwork and Collaboration, Technical skills, Analysis, Arranging, Interpretation and Performance Reflection. Students gain knowledge in: Notational Conventions, Historical Influences, Music Technology and Rehearsal Strategies.

#### **Learning Focus:**

#### Unit 1 and 2 - Music Performance

Both Units 1 and 2 focus 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.

#### Unit 3 and 4 - Music Performance

Both Units 3 and 4 continue to focus on building and rehearsing a performance program with a focus on performance and musicianship skills. Students also create a program of exercises designed to overcome difficulties and build confidence as a performer.

#### Area of Study 1 - Performance (Unit 1 -4)

Students prepare and present a program of musical works that incorporate a variety of performance contexts and a focus on individual musicianship through rehearsal.

#### Area of Study 2 - Preparing for Performance (Units 1 - 4)

Students research and develop rehearsal strategies that enhance their performance. They identify strengths and weaknesses in their own playing and select or create exercises that improve presentation outcomes.

#### Area of Study 3 – Music Language (units 1 - 4)

Students use their knowledge of musical language to develop their interpretive and critical listening skills. They develop their ability to hear, identify, sing, and play the fundamental components and elements of music.

#### Area of Study 4 – Organisation of Sound (Unit 2 only)

Students create and perform an original work or improvisation by exploring creative approaches, stylistic frameworks, and compositional characteristics from the works within their performance program.

#### Assessment:

#### Unit 1 and 2

- Performance Program of at least 3 works of acceptable duration.
- Unit One focuses more on Solo performance.
- Unit Two focuses more on Group performance.
- A Technical Presentation that addresses performance challenges.
- A Folio or Workbook of aural, written, practical tasks and coursework
- End of Unit Exam
- A Composition or Improvisation with supporting documentation in written or multimedia form

#### Unit 3 and 4

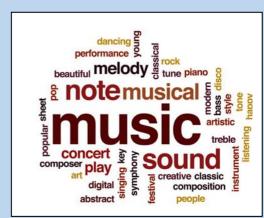
- Performance Program of at least 25 minutes of contrasting and stylistically diverse works (externally assessed).

Students choose to focus on group or solo playing. A prescribed list of works is given for both solo and group performances.

- A Technical Presentation that addresses any interpretive, technical, or expressive challenges within the performance
- A Music Language Exam on chords and progressions, rhythmic and melodic writing, aural listening skills, and analysis (externally assessed)

#### Additional Costs: \$20.00 per year

Instrumental Lessons will be an additional cost. (\$350 per year for year 12 students/ \$400 per year for year 10/11 students) VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/music/musicindex.aspx





### **Subject: Theatre Studies**

#### **Description:**

Theatre Studies involves students in the interpretation and production of plays. Students will acquire an understanding of theatre through the ages – its traditions and history. Knowledge acquired in this area will be applied to produce a major performance and monologues to an audience. To assist their understanding of theatre, students will experience plays in performance as an audience member and be instructed in analytical and reviewing skills.

#### **Learning Focus:**

#### **Unit 1 - Pre Modern Theatre**

Students will identify and describe the distinguishing features of pre-modern theatre. They will apply acting and other stagecraft to interpret playscripts from the pre-modern era and analyse a performance of a pre-modern playscript.

#### **Unit 2 - Modern Theatre**

Students will identify and describe the distinguishing features of modern era theatre playscripts. They will apply stagecraft to interpret playscripts from the modern era and analyse and evaluate stagecraft in a performance of a modern playscript.

#### **Unit 3 - Playscript Interpretation**

Students will apply stagecraft to interpret a playscript for performance to an audience. They will document an interpretation of excerpts from a playscript and explain how stagecraft can be applied in the interpretation. Students will analyse and evaluate the interpretation of a written playscript in production to an audience.

#### **Unit 4 - Performance Interpretation**

Students will interpret a monologue from a playscript and justify interpretive decisions. Develop a theatrical treatment that presents an interpretation of a monologue and its prescribed scene. Analyse and evaluate acting in a production.

#### Assessment:

Portfolio (notes, ideas, script, pictures, photos, designs) documenting the Theatre Production process

Production (performance of a playscript) – Students contribute to the production in the following areas of their choice: lighting, sound, acting, costume, make-up, direction, publicity, dramaturgy (research), writing. Analysis of a Professional Performance

Presentation of a Monologue

Unit 3: School assessed Coursework - 25%
Unit 4: School assessed Coursework - 25%
End-of-year examination - 50%

Additional Costs: \$60.00 per year



# Access to Excellence

### Subject: Visual Communication Design

#### **Learning Focus:**

#### **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 make messages, ideas and concepts visible and tangible. You will practise your ability to draw what you observe and will use visualisation drawing methods to explore your own ideas and concepts. You will develop an understanding of the importance of presentation drawings to clearly communicate your final visual communications.

#### Unit 2 - Applications of Visual Communication Design

This unit focuses on the application of visual communication design knowledge, design thinking skills and drawing methods to create visual communications to meet specific purposes in designated design fields. You will 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. You will investigate how typography and imagery are used in visual communication design. You will 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.

#### **Unit 3 - Design Thinking and Practice**

In this unit you will 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, you will gain insight into how the selection of methods, media, materials and the application of design elements and design principles can create effective visual communications for specific audiences and purposes. You will 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 your own design ideas and concepts.

#### **Unit 4 - Design Development and Presentation**

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



#### Assessment:

Unit 1 and 2

Assessment includes one or more of the following; a folio of instrumental & freehand drawings, a folio of solutions to set tasks, written reports and an end of unit exam.

#### Unit 3 and 4:

Assessment is based on an end of year exam (34%), a folio (SAT) worth 33% and final presentations

Unit 3: School assessed Coursework - 25%
Unit 4: School assessed Coursework - 25%
End-of-year examination - 50%

Additional Costs: \$100.00 per year

### **VCE Subject Descriptions - Business Studies**

### Subject: Business Management



#### **Description:**

If you wish to know why some businesses are more successful than others, then Business Management may be for you.

Business Management examines the ways in which managers make decisions to improve the performance of businesses.

Each unit exposes students to real business scenarios. Business Management focuses on the issues facing managers and organisations in Australia and globally.

#### **Learning Focus:**

#### Unit 1 - Planning a business

- The development of ideas for business success and to benefit society.
- The impact of planning decisions on business success including business models, legal structures and staffing.
- How business plans are affected by external factors, including economic conditions, overseas competitors and customer needs

#### Unit 2 - Establishing a business

- Legal requirements and financial considerations when establishing a business.
- Analysis of marketing and public relations strategies aimed at establishing a customer base.
- Evaluation of employment strategies from the perspective of the employer and employee.

#### Unit 3 - Managing a business

- Analysis of the relationship between corporate culture, management styles and management skills.
- Theories of motivation and strategies to manage the performance of employees.
- Evaluation of strategies to improve production systems in a global environment.

#### **Unit 4 - Transforming a business**

- Evaluating business performance and forces that drive change or hold it back
- Leadership and strategies to effectively manage business change



#### **Assessment:**

Unit 1 and 2: Assessment includes tests, case studies, reports and semester exams

**Unit 3:** School assessed Coursework including tests and case studies 25%

**Unit 4:** School assessed Coursework including tests and case studies 25%

End-of-year examination 50%

Additional Costs: \$30.00 per year

VCAA website: <a href="https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/business-management/Pages/Index.aspx">https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/business-management/Pages/Index.aspx</a>

### **VCE Subject Descriptions - Business Studies**

### **Subject: Legal Studies**



#### Description:

Interested in crime? How is a crime scene investigated? What makes someone commit murder? How do we punish offenders? How does the law protect my individual rights? Who makes the law and how? How can the law be changed to reflect current values? All these questions and more will be answered during Legal Studies Units 1 to 4.

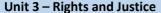
#### **Learning Focus:**

#### Unit 1 - Guilt and Liability

- knowledge of laws and the Australian legal system
- the role of individuals, laws and the legal system in achieving social cohesion and protecting the rights of individuals
- characteristics of an effective law, and sources and types of law
- relationship between parliament and the courts
- reasons for a court hierarchy in Victoria
- principles of justice.

#### Unit 2 - Sanctions, remedies and rights

- enforcement of criminal law and civil law
- methods and institutions that may be used to determine a criminal case or resolve a civil dispute
- purpose and types of sanctions and remedies
- investigation of two criminal cases and two civil cases
- understanding how rights are protected in Australia and in another country
- examine a significant case in relation to the protection of rights in Australia



- examine the methods and institutions in the justice system
- consider the Magistrates' Court, County Court and Supreme Court within the Victorian court hierarchy, explore matters such as the rights available to an accused and to victims in the criminal justice system, examine the roles of the judge, jury, legal practitioners and the parties
- consider ability of sanctions and remedies to achieve their purposes
- investigate principles of justice and recent reforms

#### Unit 4 - The people and the law

- explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and protects the Australian people
- significance of the High Court in protecting and interpreting the Australian Constitution
- investigate parliament and the courts, and the relationship between the two in law-making
- consider the roles of the individual, the media and law reform bodies in influencing law reform

#### **Assessment:**

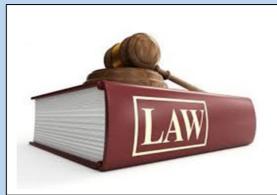
**Unit 1 and 2:** Assessment will include tests for SACs. Coursework requirements will consist of class tasks, homework tasks, case studies and practice exam questions.

**Unit 3 and 4:** Assessment will include tests for SACs with structured questions. Coursework requirements will consist of class tasks, homework tasks, case studies and practice exam questions.

Unit 3: School assessed Coursework - 25%
Unit 4: School assessed Coursework - 25%
End of year examination - 50%

Additional Costs: \$30.00 per year Excursion: Cost to be advised

VCAA website: https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/legalstudies/Pages/Index.aspx



### VCE Subject Description - Health & Physical Education

## Subject: Health & Human Development



#### **Description:**

Through the study of VCE Health and Human Development, students examine health & well-being and human development as dynamic concepts, subject to a complex interplay of biological, sociocultural and environmental factors, many of which can be modified by health care and other interventions. Students consider the interaction of these factors and how health and development may be influenced by the conditions into which people are born, grow, live and work.

Students also look at the Australian healthcare system, as well as examine and evaluate the work of global organisations such as the United Nations and the World Health Organization, as well as non-government organisations and the Australian government's overseas aid program.

#### **Learning Focus:**

#### Students will:

#### Unit 1 - Understanding Health and Well-being

- Explore the concepts of health and well-being
- Examine the measurements and indicators of health status
- Identify the socio-cultural factors affecting health status
- Investigate Nutrition and its relationship to youth health and well-being
- Explore a specific youth health and well-being issue

#### Unit 2 - Managing Health and Development

- Examine the human lifespan and the developmental transitions between youth and adulthood
- Explore healthy and respectful relationships
- Investigate parenting during pre-natal and early childhood development
- Examine Australia's health system
- Scrutinize health services and information in relation to digital technology

#### Unit 3 – Australia's Health in a Globalised World

- Explore the dimensions of health and well-being including the prerequisites for health
- Identify ways to measure health status and apply them to different population groups
- Examine how smoking, alcohol, BMI and dietary risks impact health status
- Investigate Australia's health status using the Ottawa Charter
- Evaluate programs such as Medicare, PBS, NDIS and private health insurance and their impact on health status
- Identify the targets of health promotion encompassing smoking, indigenous health and nutrition

#### Unit 4 - Health and Human Development in a Global Context

- Describe the characteristics of high, middle and low income countries and the factors that contribute to the health differences between countries
- Examine the dimensions of sustainability and discuss how global trends are affecting health and wellbeing
- Investigate Sustainable Development Goals (SDG's) and evaluate different programs that implement them

#### **Assessment:**

All assessments for Units 1 and 2 are school-based, and can include written reports, media analysis, research inquiry, case study analysis, oral presentation, a visual presentation, data analysis or structured questions.

Unit 1 includes three Areas of Study

Unit 2 includes two Areas of Study

Students are also required to undertake an end of semester Examination and complete all set Coursework tasks.

Unit 3 and 4 assessments can include written reports, case study analysis, visual presentation or structured questions.

Unit 3: School Assessed Coursework 25%
Unit 4: School Assessed Coursework 25%
End-of-Year Examination: 50%

Additional Costs: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/healthnhuman/healthumindex.aspx

# VCE Subject Descriptions - Health & Physical Education Subject: Outdoor & Environmental Studies



#### Description:

VCE Outdoor and Environmental Studies develops students' understandings of outdoor environments, and the ways in which humans interact with, relate to and have impacted outdoor environments over time. 'Outdoor environments' covers landscape areas, both local and further afield, that range in health from protected areas to those heavily impacted by human practices.

The study helps students to be able to make critically informed comments on a range of environmental issues, question environmental sustainability and human connections to country, both past and present. Students are able to understand the importance of to environmental health due to human or natural influences.

During this study, both passive and active outdoor experiences provide the means for students to develop experiential knowledge of outdoor environments. Outdoor experiences used to achieve this level of understanding include guided activities at historic sites, mining/logging, site investigations of different ecological zones and through visiting interpretation centres. Some of the activities used to access and experience these environments include rock climbing, canoeing and rafting, bushwalking, cross-country skiing, and restoration projects.

#### **Learning Focus:**

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

- Examine some of the ways in which Indigenous and non-Indigenous peoples understand and relate to nature.
- The focus is on individuals and their personal responses to experiencing outdoor environments.
- Develop a clear understanding of the range of motivations for interacting with outdoor environments.
- Develop practical skills and knowledge to help them act sustainably in outdoor environments.

#### **Unit 2- Discovering outdoor environments**

- Investigate the different ways people understand outdoor environments and the impact of humans have.
- Study the effects of natural change & impact of land management practices on the sustainability of environments.
- Develop the practical skills required to minimise the impact of humans on outdoor environments.
- Investigate a range of vocational perspectives that inform human use of outdoor environments.

#### Unit 3- Relationships with outdoor environments

- Develop understanding of the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia.
- Examine the dynamic nature of relationships between humans and their environment.
- Investigate factors that influence relationships with outdoor environments.
- Actively engage in experiences in outdoor environments, including in areas of human interaction.

#### **Unit 4- Sustainable outdoor relationships**

- Explore the sustainable use and management of outdoor environments.
- Observe and assess the health of outdoor environments and consider the importance of environmental health.
- Examine the importance of the sustainability of human relationships with outdoor environments.
- Investigate environmental management strategies for maintaining environmental health.

#### Assessment

Assessment of each outcome includes a journal or report demonstrating links between theoretical content studied and practical experiences undertaken AND at least one task from the following: a case study, a multimedia presentation, a written report, data analysis or structured questions.

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

Unit 3: School Assessed Coursework
Unit 4: School Assessed Coursework
End-of-Year Examination:

25%
50%

#### **Additional Costs: \$30.00**

In 2024 each experience (i.e. day trips/camps/class time experiences) will be charged separately. Please note, the total cost for the year for Outdoor and Environmental Studies will be approx. \$600.00.

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/outdoor/outdoorindex.aspx

### VCE Subject Descriptions - Health & Physical Education



### **Subject: Physical Education**

#### Description:

VCE Physical Education explores the relationships between anatomical, biomechanical, physiological and skill acquisition principles to understand their role in producing and refining movement. It examines behavioural, psychological, environmental and socio-cultural influences on performance and participation in physical activity. Students participate in practical activities to examine the core concepts that underpin movement and that influence performance and participation in physical activity, sport and exercise.

#### **Learning Focus:**

Students will:

#### Unit 1 - The Human Body in Motion

- Examine the structure and function of the skeletal, muscular, cardiovascular and respiratory systems
- Identify acute and chronic injuries of the musculo-skeletal systems
- Explore performance enhancement of the musculo-skeletal and cardiorespiratory systems

#### Unit 2 - Physical Activity, Sport and Society

- Explore the enablers and barriers of physical activity and sedentary behaviour
- Examine and apply the concepts of the Socio-Ecological Model
- Analyse the principles of a physical activity plan
- Investigate contemporary issues and sport
- Explore cultural diversity and inclusion in physical activity

#### Unit 3 – Movement Skills and Energy for Physical Activity

- Classify movement skills and examine the links between skill, participation and performance
- Apply biomechanical principles in the analysis of human movement
- Explore the influence of coaching, instruction, practice and feedback on skill development
- Examine energy systems and analyse their influence of physical activity
- Investigate acute responses to exercise of the muscular, cardiovascular and respiratory systems

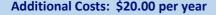
#### Unit 4 - Training to Improve Performance

- Investigate and apply various methods of activity analysis
- Identify fitness components and apply them to fitness assessment
- Plan a training program and apply the principles and methods of training
- Examine the chronic adaptations that occur during various types of training
- Examine performance enhancement and recovery strategies in relation to physical activity

#### Assessment:

All assessments for Units 1 and 2 are school-based, including a physical activity portfolio, and the option of written reports, case study analysis, oral presentation, a visual presentation, data analysis, or structured questions. Unit 1 and 2 include two Areas of Study. There will be semester Exams and set Coursework tasks. Unit 3 and 4 assessments can include written reports, case study analysis, visual presentation or structured questions.

Unit 3: School Assessed Coursework 25%
Unit 4: School Assessed Coursework 25%
End-of-Year Examination: 50%



VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/physicaledu/phyeduindex.aspx



### **VCE Subject Descriptions - Humanities**



### Subject: Geography

#### **Description:**

Are you curious about why the world is the way it is? Do you look at maps and dream of travel to exotic places and far-flung locations? Do you sometimes wonder why there is great wealth in some countries, but terrible poverty in others? The study of Geography will help you uncover the answers to these questions and many more. You will develop a much greater understanding of the world around you, as well as useful skills of data analysis, map interpretation and careful analysis about some of the biggest issues in the world at the moment.

#### **Learning Focus:**

Unit 1 - Hazards and Natural Disasters

- The characteristics of major hazards such as bushfires, earthquakes, tsunamis and floods
- Factors affecting the risk level for populations around the world
- How humans respond to hazards
- How we plan and protect populations against natural hazard
- A fieldwork excursion focusing on how Victoria has responded to a hazard and/or disaster

#### Unit 2 - Tourism

- How tourism affects local places around the world
- The changing characteristics of tourism over time
- The idea of sustainable tourism and places being 'ruined'
- A fieldwork excursion focusing on how Victoria has adapted to the changing world of tourism

#### Unit 3 - Changing the Land

- How deforestation and melting glaciers are affecting our world
- The ways which humans attempt to respond to these global issues
- How land use has changed over the past 200 years
- A fieldwork excursion on how land use has changed in Melbourne

#### Unit 4 - Human Population – trends and issues

- How populations have changed since the 1700s
- What the future global population might be like
- Two case studies looking at growing and ageing populations and what countries are doing to solve these population problems

#### Assessment:

Unit 1 and 2 and Unit 3 and 4: School assessed coursework for all 4 units include fieldwork investigations, short answer tests and extended response questions. Students will build the highly useful career skills of data analysis and interpretation, being able to present using digital technologies and fieldwork.

Unit 3: School assessed Coursework - 25%
Unit 4: School assessed Coursework - 25%
End-of-year examination - 50%

Additional Costs: \$20.00 per year (Unit 3 & 4 not offered 2024)

There is a compulsory fieldwork excursion for each of Unit 1, 2 and 3. There is an additional fee component associated with this subject to cover costs.

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/geography/geogindex.aspx

### **VCE Subject Descriptions – Humanities**



### Subject: Empires – Unit 1 & Ancient History – Unit 2

#### **Prerequisites**

There are no prerequisites, however completion of Year 10 History is recommended.

#### **Description:**

**Unit 1:** Students will learn about the foundations and features of global empires and the significant changes they brought to the wider world. You will focus on the features of empires and what contributed to their rise and analyse how the social, political, economic, cultural, religious, environmental and technological features and conditions shaped an empire's quest for expansion. You will investigate how the quest for power and the acquisition of new territories challenged traditional beliefs and views of the world as well as how explorers contested territorial boundaries and indigenous people were subjected to the authority of the new empire and its needs.

**Unit 2:** You will uncover the evidence of how the first cities developed, including the first use of writing. You will also find out how the Civilizations rose into mighty Empires, Ancient warfare, the power of their leaders and also how these Empires fell in power. You will investigate features and the representation of power in Ancient societies and examine the impact it had on society and development. You will be given the opportunity to develop your understanding of the importance of primary sources and examine the information that they uncover.

#### **Learning Focus:**

## Unit 1 – The Rise of Empires – encounters, challenge and change - Russian Empire (1552–1894) & French Empire (1605–1774)

- The rise, expansion and consolidation of the empire
- Factors that contributed to the expansion of the empire
- How power was organized and expressed
- Differing perspectives
- Consequences of expansion

#### Unit 2 – Ancient Egypt (The double crown 2920-2040 BCE – Power and Propaganda 2040 – 1550 BCE)

- Kingship in Old Kingdom Egypt.
- The Social, Political and Economic reasons for building the Pyramids
- Egyptian beliefs concerning the afterlife
- Egyptian artifacts, artwork, tombs and culture.

#### OR

#### Unit 2 – Early China (Ancient China – Early Dynasties)

- Development of civilization
- The struggle for power and dominance
- Battles of religion
- Great inventions

#### Assessment:

School Assessed Coursework will include the following activities: An historical inquiry; an analysis of primary sources; an analysis of historical interpretations; an essay.

Unit 1: School Assessed Coursework - 80%

Unit 1: End of Semester Examination - 20%

Unit 2: School Assessed Coursework - 80%

Unit 2: End of Semester Examination - 20%

**Additional Cost: \$20.00** 



VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/history/ancient/ancienthistoryindex.asp

### VCE Subject Descriptions – Humanities



### Subject: History: Revolutions (Units 3 & 4)

#### **Description:**

If you are interested in learning about significant causes of the French and Russian Revolution, then these Units are for you. You will discover how the actions of popular movements and particular individuals contributed to triggering a revolution. You will uncover to what extent social tensions and ideological conflicts contributed to the outbreak of revolution. You will also examine how the new society of France and Russia consolidated its power after the Revolution, and discover the extent to how society changed as a result of revolution.

#### **Learning Focus:**

#### Unit 3 – Russian Revolution. Causes and Consequences of a Revolution

- The Russian Revolution from 1896 to October 1917 (Coronation of Tsar Nicholas to the 25th October Revolution 1917)
- The Russian Revolution from October 1917 to 1924 (Early Sovnarkom decrees to the end of the NEP).
- Analyse the causes and consequences of the Russian Revolution.
- Evaluate the contribution of significant ideas, events, individuals and popular movements.
- Evaluate the extent of change brought to society after the Russian Revolution.

#### Unit 4 – French Revolution. Causes and Consequences of a Revolution

- The French Revolution from 1774 to October 1789 (Accession of Louis XVI to the throne to The October Days 1789).
- The French Revolution from October 1789 to 1795 (The October Days to the Dissolution of the Convention Year III).
- Analyse the causes and consequences of the French Revolution.
- Evaluate the contribution of significant ideas, events, individuals and popular movements.
- Evaluate the extent of change brought to society after the French Revolution.



#### **Assessment:**

School Assessed Coursework will include the following activities: An historical inquiry; an analysis of primary sources; an analysis of historical interpretations; an essay. Unit 3: School Assessed Coursework - 25%

Unit 4: School Assessed Coursework - 25%

End of year Examination - 50%

Additional Costs: \$20 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/history/revolutions/revolutionindex.aspx

### **VCE Subject Descriptions - Humanities**



### Subject: History: Ancient History (Units 3 & 4)

#### **Prerequisites**

There are no prerequisites, however completion of Unit 1 & 2 Ancient History or Unit 1 & 2 Twentieth Century History is advised.

#### **Description:**

Ancient history Greece and Rome were major civilisations of the ancient Mediterranean, leaving a powerful legacy on the contemporary world. You will explore the structures of one of these societies and a period of crisis in its history, including trade, warfare, and the exchange of ideas between societies also influenced the way people lived.

#### **Learning Focus:**

#### **Unit 3&4**

#### Area of Study 1: Living in an Ancient society

- What was it like to live in ancient Egypt, Greece or Rome?
- What were the social, political and economic features of life?
- Why were these features significant?

#### Greece

For Greece, you will examine the social, political and economic

features of life during the Archaic Period. You will also investigate social, political and economic features of Athens and Sparta to 454 BC. Furthermore, you examine the causes and consequences of the conflict between Greece and Persia.

#### Rome

For Rome, you will examine social, political and economic features of the early development of Rome and life under the Kings. You will also investigate the social, political and economic features of the Roman Republic. Furthermore, you examine the causes and consequences of the conflict between Rome and Carthage.

#### Area of Study 2: People in power, societies in crisis

- How did crises change ancient societies?
- How did key individuals contribute to such events?
- How might we judge the historical significance of these crises and the individuals who took part in them?

#### Greece

For Greece, study of the Peloponnesian War (431–404 BC) reveals a different form of crisis. The conflict was fought between the Athenian Empire and the Peloponnesian League. At the start of the war, Athens was wealthy and powerful. By the end of the struggle, her power was broken. Analysis of the involvement of the key individuals Pericles, Alcibiades and Lysander reveal the different aims, motives and perspectives at work at various stages of the conflict.

#### <u>Rome</u>

For Rome, some historians argue that the demise of the Republic began with the election of Tiberius Gracchus as tribune, his attempts at reform and his death. The crisis gathered momentum under Gaius Gracchus, Gaius Marius, Sulla and Pompey. In the climactic final years of the crisis, Julius Caesar, Cleopatra VII and Augustus were important figures in the struggle for mastery of the Roman world.

#### Assessment:

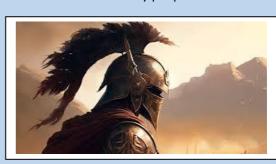
School Assessed Coursework will include the following activities: An historical inquiry; an analysis of primary sources; an analysis of historical interpretations; an essay.

Unit 3: School Assessed Coursework - 25% Unit 4: School Assessed Coursework - 25% End of year Examination - 50%

#### Additional Cost: \$20.00 per year

#### VCAA website:

https://www.vcaa.vic.edu.au/assessment/vce-assessment/past-examinations/Pages/Ancient-History.aspx



### **VCE Subject Descriptions - Science**

### Subject: Biology



#### **Description:**

Biology is a diverse and evolving science discipline that seeks to understand and explore the nature of life, past and present. Despite the diversity of organisms and their many adaptations for survival in various environments, all life forms share a degree of relatedness and a common origin. The study explores the dynamic relationships between organisms and their interactions with the non-living environment. This study design began in 2022:

#### **Learning Focus:**

#### Unit 1 – How do organisms regulate their functions?

Area of study 1. How do cells function?

Area of study 2. How do plant and animal systems function?

Area of study 3. How do scientific investigations develop understanding of how organisms regulate their functions?

#### Unit 2 - How does inheritance impact diversity?

Area of study 1. How is inheritance explained?

Area of study 2. How do inherited adaptations impact diversity?

Area of study 3. How do humans use science to explore and communicate contemporary bioethical issues?

#### Unit 3 - How do cells maintain life?

Area of study 1. What is the role of nucleic acids and proteins in maintaining life?

Area of study 2. How are biochemical pathways regulated?

#### Unit 4 – How does life change and respond to challenges?

Area of study 1. How do organisms respond to pathogens?

Area of study 2. How are species related over time?

Area of study 3. How is scientific inquiry used to investigate cellular processes and/or biological change?

#### Assessment:

#### Unit 1 and 2:

Assessment can include any six of the following tasks: a case study analysis, a bioinformatics exercise, a data analysis task, reflective annotations of a logbook of practical activities, media analysis of two or more media sources, a modelling or simulation activity, problem-solving involving biological concepts and/or skills, a response to a bioethical issue, a report of a laboratory or fieldwork activity including the generation of primary data, or a scientific poster.

#### Unit 3 and 4:

Unit 3: School Assessed Coursework: Outcome 1 (40) + Outcome 2 (40) = 80 total marks

Unit 4: School assessed Coursework: Outcome 1 (40) + Outcome 2 (40) + Outcome 3 (40) = 120 total marks

End-of-year examination 50%

#### Additional Costs: \$35.00 per year

#### Biology can lead to:

**Paramedic** 

Veterinarian

Dietitian

Doctor

Nurse

**Sports Scientist** 

Physiotherapist

Pharmacist

Zoologist

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/biology/biologyindex.aspx

### **VCE Subject Descriptions- Science**



### **Subject: Chemistry**

#### **Description:**

Chemistry study enables students to develop knowledge and understanding of matter and its interaction with energy, as well as key factors that affect chemical systems, to explain the properties, structures, reactions and related applications of materials in society. They will use the language and methodologies of chemistry to solve qualitative and quantitative problems in familiar and unfamiliar contexts and develop knowledge and understanding of how chemical systems can be controlled to develop greener and more sustainable processes for the production of chemicals and energy while minimising any adverse effects on human health and the environment, with consideration of wastes as underutilised resources and/or feedstock for another process or product.

#### **Learning Focus:**

#### Unit 1 - How can the diversity of materials be explained?

Area of Study 1: How do the chemical structures of materials explain their properties and reactions?

Area of Study 2: How are materials quantified and classified?

Area of Study 3: How can chemical principles be applied to create a more sustainable future?

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

Area of Study 1: How do chemicals interact with water?

Area of Study 2: How are chemicals measured and analyzed?

Area of Study 3: How do quantitative scientific investigations develop our understanding of chemical reactions?

#### Unit 3 – How can design and innovation help to optimize chemical processes?

Area of Study 1: What are the current and future options for supplying energy?

Area of Study 2: How can the rate and yield of chemical reactions be optimised?

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

Area of Study 1: How are organic compounds categorized and synthesized?

Area of Study 2: How are organic compounds analyzed and used?

Area of Study 3: How is scientific inquiry used to investigate the sustainable production of energy and/or materials?

#### **Assessment:**

**Unit 1 and 2:** Each unit will involve some of the following tasks: practical activities, summary report, written analysis, extended experimental investigation, response to stimulus and exams.

#### Unit 3 and 4:

Unit 3: School assessed Coursework 20% Unit 4: School assessed Coursework 30% End-of-year examination 50%

Additional Costs: \$35.00 per year



#### **Chemistry can lead to:**

Chemical engineer

**Biochemist** 

Dietitian

Doctor

Pathologist

Pharmacist

Wine maker

**Agriculturists** 

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/chemistry/chemindex.aspx

## **VCE Subject Descriptions - Science**



## **Subject: Physics**

## **Description:**

Physics seeks to understand and explain the physical world. It examines models and ideas used to make sense of the world and which are sometimes challenged as new knowledge develops. By looking at the way matter and energy interact through observations, measurements and experiments, physicists gain a better understanding of the underlying laws of nature. This is a new study design being implemented in 2023 for Units 1 and 2, and 2024 for Units 3 and 4.

### **Learning Focus:**

### Unit 1: How is energy useful to society?

Area of study 1: How are light and heat explained?

Area of study 2: How is energy from the nucleus utilized?

Area of study 3: How can electricity be used to transfer energy? Extended practical investigation

#### Unit 2: How does physics help us understand the world?

Area of study 1: How is motion understood?

Area of study 2: How does physics inform contemporary issues and applications in society? In this area of study, students develop a deeper understanding of an area of interest within diverse areas of physics. They select from eighteen options (listed in the study design), explore the related physics and use this physics to form a stance, opinion or solution to a contemporary societal issue or application. In their explorations, a range of investigation methodologies may be used by students.

Area of study 3: How do physicists investigation questions? Extended practical investigation

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

Area of study 1: How do physicists explain motion in two dimensions?

Area of study 2: How do things move without contact?

Area of study 3: How are fields used in electricity generation?

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

Area of study 1: How has understanding about the physical world changed?

Area of study 2: How is scientific inquiry used to investigate fields, motion, or light?



#### **Assessment:**

Unit 1 and 2: Each unit will involve some of the following tasks.

Practical activities, summary report, written analysis, extended experimental investigation, response to stimulus and exams,

#### Unit 3 and 4:

Unit 3; School assessed Coursework 20% Unit 4: School assessed Coursework 20%

End-of-year examination 60%

Additional Costs: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/physics/physicsindex.aspx

## **VCE Subject Descriptions - Science**

## Subject: Psychology



### **Description:**

Psychology is a broad discipline that incorporates both the scientific study of human behaviour through biological, psychological and social perspectives and the systematic application of this knowledge to personal and social circumstances in everyday life. This is a new study design to be implemented in 2023

### **Learning Focus:**

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

Area of study 1: What influences psychological development?

Area of study 2: How are mental processes and behavior influenced by the brain?

Area of study 3: How does contemporary psychology conduct and validate psychological research? (Student-directed research investigation)

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

Area of study 1: How are people influenced to behave in particular ways?

Area of study 2: What influences a person's perception of the world?

Area of study 3: How do scientific investigations develop understanding of influences on perception and behavior? (Student-directed research investigation)

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

Area of study 1: How does the nervous system enable psychological functioning?

Area of study 2: How do people learn and remember?

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

Area of study 1: How does sleep affect mental processes and behaviour?

Area of study 2: What influences mental wellbeing?

Area of study 3: How is scientific inquiry used to investigate mental processes and psychological functioning? (Student-designed scientific investigation)

#### Assessment:

Unit 1 and 2: Each unit will involve some of the following tasks.

Practical activities, summary report, written analysis, extended experimental investigation, response to stimulus, and exams.

#### Unit 3 and 4:

Unit 3: School assessed Coursework 16% Unit 4: School assessed Coursework 24% End-of-year examination 60%



Additional Costs: \$20.00 per year

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/psychology/psychoindex.aspx



## Subject: Product Design & Technology - Wood

### **Description:**

Product Design and Technology focuses on developing an understanding of the social, economic and environmental consequences of design choices and decision making.

### **Learning Focus:**

#### Unit 1 Product Design and Technology - Sustainable Product Redevelopment

This unit focuses on the analysis, modification and improvement of a product design with consideration of sustainability. In this unit students examine claims of sustainable practices by designers. Students consider the sustainability of an existing product, such as the impact of sourcing materials, manufacture, distribution, use and likely disposal. They consider how a redeveloped product should attempt to solve a problem related to the original product. Where possible, materials and manufacturing processes used should be carefully selected to improve the overall sustainability of the redeveloped product.

#### **Area of Study**

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

#### **Unit 2 - Collaborative Design**

In this unit students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. They focus on factors including end-user/s' needs and wants, and the impact of these factors on a design solution.

Teamwork encourages communication between students and mirrors professional design practice where designers often work within a multi-disciplinary team to develop solutions to design problems. Students also use digital technologies to facilitate teams to work collaboratively online.

#### **Area of Study**

- · Designing with a team
- Producing and evaluating with a team



#### Assessment:

Unit 1 and 2: Design Folio

A finished product Other tasks TBA

**End-of-year Examination** 

Additional Costs: \$60.00 per year (Unit 3 & 4 not offered 2024) Students may be required to purchase other materials

VCAA website: https://www.vcaa.vic.edu.au/Pages/vce/studies/designtech/destechindex.aspx



## **Subject: Food Studies**

### Description:

VCE Food Studies explores food from a wide range of perspectives. Past and present patterns of eating, how food is produced locally and globally, and the physical and social functions of food will be investigated. Practical work includes cooking, demonstrations, working with design briefs, physical and sensory analysis.

Students in Food Studies will develop their skills in the preparation, evaluation and enjoyment of food. Extend your understanding of our abundant and varied food supply as you learn to apply principles of nutrition, food science and product development.

### **Learning Focus:**

#### **Unit 1 - Food Origins**

This Unit focuses on food around the world and then look more specifically at food in Australia. Our cultural influences will be investigated to understand how our cuisine has developed to what it is today.

#### **Unit 2 - Food Makers**

Students will investigate commercial food production, how new products are developed, our safe food supply and how it is monitored as well as the influence of consumers on commercial food production in Australia.

### Unit 3 - Food in Daily Life

This Unit looks at the physiology of eating and appreciating food. Students will investigate Food Models and Dietary Guidelines and develop an understanding of how our bodies use food. Food allergies and intolerances will be covered along with the functional properties of a wide range of foods.

#### **Unit 4 - Food Issues, Challenges and Futures**

In this Unit students will develop an understanding of a range of food issues including sustainability, ethical food choices and contemporary food fads and diets. They will investigate farming practices, developing food technologies and the challenges that face Australia related to food security, safety and wastage.

#### Assessment

Across all units there are a range of assessment tasks learning activities including practical work, tests, written reports, evaluations, oral presentations etc. In Units 1 and 2 there are end of Semester Exams.

Unit 3 School assessed coursework - 30% Unit 4 School assessed coursework - 30% End of year examination - 40%



Additional Costs: \$240.00 - per year

VCAA website: <a href="http://www.vcaa.vic.edu.au/Pages/vce/studies/foodtech/foodtechindex.aspx">http://www.vcaa.vic.edu.au/Pages/vce/studies/foodtech/foodtechindex.aspx</a>



## **Subject: Applied Computing**

### **Description:**

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

## **Learning Focus:**

#### **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 visualisation, and the use of programming languages to develop working software solutions.

#### **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.

#### **Unit 3: Software Development (tbc)**

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.

#### **Unit 4: Software Development (tbc)**

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 organization.



#### Assessment:

Units I and 2:	School Assessed Coursework	100%
Unit 3	School Assessed Coursework	10%
	School Assessed Task	15%
Unit 4	School Assessed Coursework	10%
	School Assessed Task	15%
End-of-year exam		50%

Additional Costs: \$10.00 per year

VCAA Website: <a href="https://www.vcaa.vic.edu.au/Documents/vce/computing/2020AppliedComputingSD.docx">https://www.vcaa.vic.edu.au/Documents/vce/computing/2020AppliedComputingSD.docx</a>



## Subject: VCE Systems Engineering

### **Description:**

VCE Systems Engineering involves the design, production, operation, evaluation, and iteration of integrated systems, which mediate and control many aspects of human experience. Integral to VCE Systems Engineering is the identification and quantification of systems goals, the generation of system designs, trial and error, justified design trade-offs, selection, and implementation of the most appropriate design. Students test



and verify that the system is well-built and integrated. They evaluate how well the completed system meets the intended goals and reflect on the systems engineering process to create a satisfactory design outcome.

### **Learning Focus:**

#### **Unit 1 Mechanical systems**

This unit focuses on engineering fundamentals as the basis of understanding concepts, principles and components that operate in mechanical systems. The term 'mechanical systems' includes systems that utilise all forms of mechanical components and their linkages.

#### **Unit 2 Electro technology systems**

In this unit students study fundamental electro-technological engineering principles. The term 'electro-technological' encompasses systems that include electrical/electronic circuitry including microelectronic circuitry. Through the application of the systems engineering process, students create operational electro-technological systems, which may also include mechanical components or electro-mechanical subsystems.

#### Unit 3 Integrated and controlled systems

In this unit students study engineering principles used to explain physical properties of integrated systems and how they work. Students design and plan an operational, mechanical, and electro-technological integrated and controlled system. They learn about the technologies used to harness energy sources to provide power for engineered systems.

#### **Unit 4 System control**

In this unit students complete the creation of the mechanical and electrotechnology integrated and controlled system they researched, designed, planned, and commenced production of in Unit 3. Students investigate new and emerging technologies, consider reasons for their development, and analyse their impacts.

#### Assessment Tasks

Practical assessment on the completion of a mechanical system of student choice and a Sumo bot. Theoretical SAC from theory covered.

Work requirement: completion of task from course work.

Additional Costs: \$120.00 per year (Unit 3 & 4 not offered 2024) Students may be required to purchase other materials.

VCAA website: https://www.vcaa.vic.edu.au/Documents/vce/systemeng/2019SystemsEngineeringSD.pdf

## <u>VCE Subject Descriptions – Vocational Major (VM)</u> Subject: Literacy



### **Description:**

VCEVM Literacy focuses on the development of the knowledge and skills required to be literate in Australia today, encompassing a student's ability to interpret and create texts that have purpose, and are accurate and effective, with confidence and fluency.

Literacy empowers students to read, write, speak and listen in different contexts. Enabling students to understand the different ways in which knowledge and opinion are represented and developed in texts drawn from daily life. The development of literacy based upon applied learning principles, making strong connections between students' lives and their learning. By engaging with a wide range of text types and content drawn from a range of local and global cultures, forms and genres, including First Nations peoples' knowledge and voices, students learn how information can be shown through print, visual, oral, digital and multimodal representations.

### **Learning Focus:**

#### **Unit 1 VM Literacy**

#### Literacy for Personal Use, understanding and creating digital texts

- Demonstrate understanding of how text types are constructed for different purposes, audiences and contexts through a range of written, digital, oral and visual responses
- Apply an understanding of the conventions of literacy and digital communication by responding to and creating a range of digital content, suitable for a community, workplace or vocational context.

#### **Unit 2 VM Literacy**

### Understanding issues, voices and responding to opinions

- Explain the purpose, audience and main ideas of diverse arguments presented in different text types by creating a range of annotations, written, oral and multimedia responses that reflect learning.
- Interpret the values and opinions of others and present in oral form points of view supported by evidence.

#### **Unit 3 VM Literacy**

### Accessing, understanding, creating and responding to informational, organisational & procedural texts.

- Demonstrate the ability to locate, read and understand the purpose, audience and content presented in a variety of informational, organisational and procedural texts through application of knowledge to real-life documents.
- Create organisational, informational and procedural texts that reflect a specific workplace or vocational experience.

#### **Unit 4 VM Literacy**

### Understanding, engaging, and speaking to advise with literacy for advocacy.

- Illustrate understanding of the use of language in advocacy by producing a range of written, visual and multimodal texts for the promotion of self, a product or a chosen community group.
- Negotiate a topic, and complete, an oral presentation that showcases reflections and evaluations of student learning.

https://www.vcaa.vic.edu.au/Documents/vce/vmliteracy/VCEVMLiteracyStudyDesign.docx

Additional Costs: \$20.00 per year



## Subject: VCE Foundation Mathematics - Units 1 & 2

## Description:

#### Units 1 & 2

Foundation Mathematics Units 1 and 2 focus on providing students with the mathematical knowledge, skills, understanding and dispositions to solve problems in real contexts for a range of workplace, personal, further learning, and community settings relevant to contemporary society.

This course allows students to continue to use the mathematical skills in real life situations. The areas of study include Measurement & Geometry, Statistics and Design

#### **Learning Focus:**

#### Unit 1

#### Areas of Study 1: Patterns and number

- estimation
- the use and application of different forms of numbers and calculations

#### Area of study 2: Data

• collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts, including consideration of suitable forms of representation and summaries.

#### Area of study 3: Financial and consumer mathematics

- personal financial services and information such as borrowing, bills and banking
- income calculations including rates of pay and payslips

#### Area of study 4: Measurement

- the use and application of the metric system
- related measurement in a variety of domestic, societal, industrial and commercial contexts, including consideration of accuracy.

#### Unit 2

#### Area of study 1: Algebra number and structure

- construction, use and interpretation of formulas and symbolic expressions to describe relationships between variables and to model and represent generalisations and patterns
- estimation, approximation and reasonableness of calculations and results.

### Area of study 2: Data analysis statistics and probability

- creation of a range of charts, tables and graphs to represent and compare data
- interpretation, summary and comparison of related data sets to report findings and draw possible conclusions.

#### Area of study 3: Financial and consumer mathematics

- products and services such as comparison of health products, informed spending choices, decision making according to criteria
- managing money: earning and spending, life-stage financial planning, servicing of current and future commitments such as HECS-HELP debt, child-care support and other benefits
- local, community and national financial and economic data and trends over time (national/community/ local) such as CPI, interest rates, wages and house prices.

#### Area of study 4: Space and measurement

- location, maps, directories and digital maps including birds-eye and street views
- routes and itineraries, including location and direction, speeds, distances and estimated travel times, for example daily work route and diversions, and itinerary for travel.

#### Common Assessment Tasks:

<u>Unit 1 and 2</u> Students work through a series of workbooks and will be required to do an analysis task, applications tasks and tests.

**Equipment - Scientific Calculator** 

Additional Cost: \$20.00



## Subject: VCE Foundation Mathematics - Units 3 & 4

## **Description:**

Foundation Mathematics Units 3 and 4 focus on providing students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, contemporary data displays, diagrams, plans, geometric objects and constructions, algebra, algorithms, measures, 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.

### **Learning Focus:**

Unit 3 and 4

#### Areas of Study 1: Patterns and number

- mathematical conventions notations for number and number operations
- symbolic expressions, equations and formulas
- estimation and approximation including interval estimates, rounding, significant figures, leading-digit approximations, floor and ceiling values and percentage error.

#### Area of Study 2: Data

- development and specification of data collection requirements and methods, including consideration of audience and purpose of data collection, errors and misrepresentations in statistics
- collection and modelling of data, including the construction of tables or spreadsheets and graphs to represent data and correct representations

#### Area of Study 3: Financial and consumer mathematics

- money management including investments and loans, credit and debit, comparing mortgages versus rental costs and debt consolidation
- taxation systems at the personal and business level
- income and expenditure calculations such as GST, invoicing and BAS
- comparison of financial products and services such as insurance
- informal consideration of financial risk at the national and global level (short, medium and long term)

#### **Area of Study 4: Measurement**

- · spatial and geometric constructions including transformations, similarity, symmetry and projections
- calculations of enlargement and reduction using scaling techniques for two-dimensional and three-dimensional plans, diagrams and models

#### Common Assessment Tasks:

<u>Unit 3 and 4 Students</u> work through a series of workbooks and will be required to do an analysis task, applications tasks and tests.

**Equipment** 

**Scientific Calculator** 

Additional Cost: \$20.00

https://www.vcaa.vic.edu.au/Documents/vce/mathematics/2023MathematicsSD.docx



## Subject: Personal Development Skills

## Description:

VCE Vocational Major Personal Development Skills (PDS) takes an active approach to personal development, self-realisation and citizenship by exploring interrelationships between individuals and communities. PDS focuses on health, wellbeing, community engagement and social sciences, and provides a framework through which students seek to understand and optimise their potential as individuals and as members of their community.

PDS explores concepts of effective leadership, self-management, project planning and teamwork to support students to engage in their work, community and personal environments, enabling students to explore and address important social challenges and questions. Who am I? What is community? How can we improve the health and wellbeing of individuals? What are my goals as an individual and as part of a community? How do I seek and critique reliable information? How do I build meaningful connections with others? What actions can be taken to respond to issues that affect us as a society?

### **Learning Focus:**

#### Unit 1 VM Personal Development Skills (Healthy Individuals)

Personal identity & emotional Intelligence, Community Health & Wellbeing and Promoting a healthy life.

- Explain and discuss key concepts relating to personal identity and emotional intelligence.
- Plan & implement an activity to improve health and wellbeing, and evaluate the effectiveness of the activity.
- Analyse the impact of technology on health and wellbeing at an individual & community level, and plan, implement & evaluate an individual or group health promotion activity.

### **Unit 2 VM Personal Development (Connecting with Community)**

What is Community? Community Cohesion? How can we engage and support Community?

- Describe concepts relating to citizenship and community.
- Identify issues and challenges within the community, analyse different perspectives of diverse groups and apply problem-solving strategies on a community-based activity.
- Discuss the concept of engagement as an approach to address community issues, analyse features of effective community engagement.

## Unit 3 VM Personal Development (Leadership and Teamwork)

Social Awareness, interpersonal skills, Effective Leadership and Teamwork.

- Apply learnt social awareness and interpersonal skills when working independently and/or collaboratively in a real-life scenario or simulation relating to social awareness and interpersonal skills.
- Describe the concept of effective leadership, analyse leadership qualities and evaluate leadership styles in a range of contexts and demonstrate apply a range of leadership skills.
- Describe the characteristics of effective teams, and, through engagement in a team activity, evaluate
  personal contribution to the effectiveness of the team, reflecting on individual strengths as a leader and
  problem-solver

#### Unit 4 VM Personal Development skills – Community Project

#### Plan, Implement and Evaluate a Community Project

- Investigate and analyse an environmental, cultural, economic or social issue of significance to the community and plan a community project to address the chosen area of concern.
- Use project planning skills to implement a comprehensive plan to apply timely, affordable and effective responses to a community issue.
- Evaluate the effectiveness of the project planning and implementation, drawing together findings in a presentation to a relevant audience.

https://www.vcaa.vic.edu.au/Documents/vce/vmpds/VCEVMPersonalDevelopmentSkillsStudyDesign.docx Additional Costs: \$20.00 per year



## Subject: Work Related Skills

### **Description:**

VCE Vocational Major Work Related Skills (WRS) examines a range of skills, knowledge and capabilities relevant to achieving individual career and educational goals. Develop a broad understanding of workplace environments and the future of work and education, in order to engage in theoretical and practical planning and decision-making for a successful transition to their desired pathway.

The study considers four key areas: the future of work; workplace skills and capabilities; industrial relations and the workplace environment and practice; and the development of a personal portfolio.

In VM Work Related Skills, develop the knowledge, skills and experiences to be active and engaged citizens and future members of the workforce, with the ability to communicate effectively, advocate for themselves and be adaptable to change.

The study of WRS leads to opportunities across all industries and areas of work as well as in further education, and provides young people with the tools they need to succeed in the future.

### **Learning Focus:**

### Unit 1 VM Work Related Skills (Careers & Learning for the future)

#### **Future Careers, Presentation of career & education goals**

- Identify and discuss likely employment growth areas using credible data and apply findings to develop strategies to improve future career prospects.
- Forecast potential employment possibilities, and evaluate several education pathways that would support the acquisition of skills and knowledge required for a selected industry growth area.

#### Unit 2 VM Work Related Skills (Workplace skills and capabilities)

Skills & Capabilities for employment and further education, Transferable skills and capabilities, workplace responsibilities and rights

- Identify and evaluate individual aptitudes and interests as they relate to broad industry groups, and identify
  evidence of personal core skills, attributes and capabilities required by an industry of choice.
- Demonstrate knowledge of the recruitment and interview process, and of the essential and technical skills required by broader industry groups.

# Unit 3 VM Work Related Skills (Industrial Relations, workplace environment and practice) Social Awareness, interpersonal skills, Effective Leadership and Teamwork.

- Analyse and evaluate the characteristics of a healthy, collaborative, cooperative and harmonious workplace and identify and explain strategies to contribute to a healthy workplace environment.
- Outline the National Employment Standards and methods for determining pay and conditions, explain the
  characteristics of workplace bullying, discrimination and sexual harassment, and outline the processes and
  legal consequences for breaches and analyse the personal ramifications that may follow.

# Unit 4 VM Work Related Skills (Portfolio preparation and presentation) Portfolio development.

- Analyse the limitations and advantages of the features and uses of physical and digital and/or hybrid portfolios as they relate to potential employment in a chosen industry area or application to higher education.
- Communicate personal skills and attributes, evaluate evidence and analyse presentation skills for future enhancement relevant to employment or study.

https://www.vcaa.vic.edu.au/Documents/vce/vmwrs/VCEVMWorkRelatedSkillsStudyDesign.docx

Additional Costs: \$20.00 per year

