

# Frankston High School



## Senior School Curriculum Guide

**A guide to the subjects that Frankston High School students can study at the VCE Units One, Two, Three and Four level.**

## THE SUBJECTS AVAILABLE

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<a href="#">Information Technology – Software Development</a>	✓		✓	54
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SUBJECT TITLE	VCE	VET	Available to Year 10 students	Page
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<a href="#">Plumbing</a>		✓		89
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<a href="#">Visual Communication Design</a>	✓		✓	100

Colour	Meaning
	This is a subject that requires a student to undertake and satisfactorily complete Units One and Two prior to undertaking Units Three and Four.
	This is a subject that can only be selected at the Unit Three and Unit Four level.
	It is strongly recommended that students complete Units One and Two prior to undertaking Units Three and Four of this subject.
	This subject can only be studied at the Unit One and Unit Two level.

\* Only if specific consultation has occurred with the Science Head of Department.

# ACCOUNTING

## STUDY SUMMARY

### VCE ACCOUNTING 2013–2016

Please Note: This study summary comprises excerpts from the VCE Accounting Study Design. The summary is not a substitute for the VCE Accounting Study Design. Users are advised to consult the VCAA website <[www.vcaa.vic.edu.au/vce/studies/account/accountindex.html](http://www.vcaa.vic.edu.au/vce/studies/account/accountindex.html)> to view the full accredited study design and other resources.

#### Scope of study

VCE Accounting focuses on the financial recording, reporting and decision-making processes of a sole proprietor small business. Students study both theoretical and practical aspects of accounting. Financial data will be collected and recorded, and accounting information reported, using both manual and information and communications technology (ICT) methods.

The preparation and presentation of financial statements is governed by Australian Accounting Standards and guided by the Framework for the Preparation and Presentation of Financial Statements (AASB Framework).

#### Rationale

Accounting is the process of recording, reporting, analysing and interpreting financial data and accounting information which is then communicated to internal and external users of this information. It plays an integral role in the successful operation and management of businesses.

VCE Accounting focuses on small business. Unit 1 begins with a small service business, allowing students to develop knowledge and skills in accounting without the complexities of accounting for trading businesses or large organisations. Units 2, 3 and 4 then focus on a single activity trading business where students build on and extend their accounting skills.

Many students who study VCE Accounting will go on to further studies and careers in business and finance.

#### Structure

The study is made up of four units:

Unit 1: Establishing and operating a service business

Unit 2: Accounting for a trading business

Unit 3: Recording and reporting for a trading business

Unit 4: Control and analysis of business performance

Each unit contains between two and four areas of study.

#### Entry

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

## **Unit 1: Establishing and operating a service business**

This unit focuses on the establishment of a small business and the accounting and financial management of the business. Students are introduced to the processes of gathering and recording financial data and the reporting and analysing of accounting information by internal and external users. The cash basis of recording and reporting is used throughout this unit.

Using single entry recording of financial data and analysis of accounting information, students examine the role of accounting in the decision-making process for a sole proprietor of a service business.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information (see pages 12–14 of the study design).

## **Unit 2: Accounting for a trading business**

This unit extends the accounting process from a service business and focuses on accounting for a sole proprietor of a single activity trading business. Students use a single entry recording system for cash and credit transactions and the accrual method for determining profit. They analyse and evaluate the performance of the business using financial and non-financial information. Using these evaluations, students suggest strategies to the owner on how to improve the performance of the business.

Students develop their understanding of the importance of ICT in the accounting process by using a commercial accounting software package to establish a set of accounts, record financial transactions and generate accounting reports.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information (see pages 12–14 of the study design).

## **Unit 3: Recording and reporting for a trading business**

This unit focuses on financial accounting for a single activity trading business as operated by a sole trader and emphasises the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting. The perpetual method of stock recording with the First In, First Out (FIFO) method is used.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information (see pages 12–14 of the study design).

## **Unit 4: Control and analysis of business performance**

This unit provides an extension of the recording and reporting processes from Unit 3 and the use of financial and non-financial information in assisting management in the decision-making process. The unit is based on the double entry accounting system and the accrual method of reporting for a single activity trading business using the perpetual inventory recording system.

Students investigate the role and importance of budgeting for the business and undertake the practical completion of budgets for cash, profit and financial position. Students interpret accounting information from accounting reports and graphical representations, and analyse the results to suggest strategies to the owner on how to improve the performance of the business.

Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information (see pages 12–14 of the study design).

## **Assessment**

### **Satisfactory completion**

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

### **Levels of achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

In both Unit 3 and Unit 4, at least 30 marks out of the 100 available for School-assessed Coursework must be allocated to ICT-based assessment.

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

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

## STUDY SUMMARY VCE VET

### AGRICULTURE, HORTICULTURE, CONSERVATION AND LAND MANAGEMENT



The VCE VET Agriculture, Horticulture, Conservation and Land Management program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with a broad range of skills and knowledge to pursue a career or further training in related industries.

#### What qualification/s will I receive?

The VCE VET Agriculture, Horticulture, Conservation and Land Management program enables you to receive one or more of the following nationally recognised qualifications:

- Program 1: Certificate II in Agriculture
- Program 2: Certificate II in Horticulture
- Program 3: Certificate II in Conservation and Land Management.

These qualifications are drawn from the AHC10 Agriculture, Horticulture, Conservation and Land Management Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Agriculture*

**VCE:** You will be eligible for up to two or more units at Units 1 and 2 level, and a Units 3 and 4 sequence. If you receive a Units 3 and 4 sequence, you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL:** You will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Agriculture provides you with the knowledge and skills to enhance your employment prospects in the agriculture industry. The program covers work health and safety, farm maintenance, animal husbandry and machinery and equipment operation. Depending on the electives chosen, your skills can be developed in a range of areas including broadacre cropping, harvesting, maintaining livestock, pest management, irrigation, beekeeping, shearing and routine farm machinery maintenance. In addition, you will learn how to work effectively in the rural industry as well as the basic technical skills to be a supervised worker.

**Career opportunities:** Certificate II in Agriculture is a work ready pre-employment course designed to assist you in pursuing a career in the agricultural industry through study pathway options, such as an apprenticeship or higher education. Completion of Certificate II in Agriculture provides you with the skills to work on properties or in rural enterprises engaged in primary production. Employment opportunities exist in a number of designated sectors such as beef, dairy, sheep and wool production. With additional training and experience, future employment opportunities may include farm hand, station hand, farm supervisor, wool handler/classer, agronomist, agribusiness administrator.



# ANIMAL STUDIES

## STUDY SUMMARY VCE VET

### ANIMAL STUDIES



The VCE VET Animal Studies program is drawn from a national training package and offers a portable qualification which is recognised throughout Australia. This qualification provides students with the knowledge and skills to pursue a career or further training in the animal care and management industry; in areas such as animal control and regulation, animal technology, captive animals, companion animal services and veterinary nursing.

#### What qualification will I receive?

The VCE VET Animal Studies program enables you to receive the Certificate II in Animal Studies. This nationally recognised qualification is drawn from the ACM10 Animal Care and Management Training Package and is issued by a Registered Training Organisation (RTO).

#### What will I learn?

Certificate II in Animal Studies provides you with the knowledge and skills to enhance your employment prospects in the animal care and management industry. The program covers core areas in work health and safety, working in the animal care industry and hygiene routines. Elective units throughout Units 1 to 4 enable you to work with an array of animal species including birds, dogs, fish, horses and reptiles. The opportunity to develop your skills and knowledge in specialist areas including transporting companion animals, breeding procedures, veterinary nursing reception duties and surgery preparation is also available.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level and a Units 3 and 4 sequence. If you receive a Units 3 and 4 sequence, you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL:** you will be eligible for up to four credits towards your VCAL: at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Certificate II in Animal Studies will assist you in pursuing a career in the animal care and management industry through vocational or higher education pathways. Employment opportunities exist in a range of roles such as an animal care attendant, animal shelter attendant, kennel hand, cattery attendant, pet shop attendant and assistant dog groomer. The animal care and management industry encompasses the following sectors: animal control and regulation, animal technology, captive animals, companion animal services and veterinary nursing. With additional training and experience, future employment opportunities may include animal technologist, animal house manager or a veterinary nurse in areas such as surgical nursing or critical care nursing.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/animalstudies/animalstudies.html](http://www.vcaa.vic.edu.au/vet/programs/animalstudies/animalstudies.html)





## ALLIED HEALTH ASSISTANCE

### STUDY SUMMARY VCE VET

#### HEALTH



The VCE VET Health program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with the skills and knowledge required to pursue further training or work in an entry-level role within a range of health related areas.

#### What qualification/s will I receive?

The VCE VET Health program enables you to receive one or more of the following nationally recognised qualifications:

- Program 1: Certificate II in Health Support Services
- Program 2: Certificate III in Allied Health Assistance
- Program 3: Certificate III in Health Services Assistance.

It is possible to combine Programs 2 and 3 for dual certification of both certificate III qualifications.

These qualifications are drawn from the HLT07 Health Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Health Support Services*

**VCE credit:** you will be eligible for up to three units at Units 1 and 2 level.

**VCAL credit:** you will be eligible for up to three credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Health Support Services is an entry level qualification which provides you with the knowledge and skills to support the effective functioning of health services. Completing this qualification enables you to meet all training and workplace requirements that are pre-requisites to be a Health Support Worker and therefore allowing you to work in hospitals, aged care facilities, and in organisations where health support services are provided. Further training is required before you can fulfil direct care assistant functions.

**Career opportunities:** Completion of Certificate II in Health Support Services may lead to employment opportunities in positions such as domestic/food services assistant, pathology courier, porter or ward assistant. Further training is required before you can fulfil direct care assistant functions.

##### *Program 2: Certificate III in Allied Health Assistance*

**VCE credit:** you will be eligible for a minimum of two Units 3 and 4 sequences. If you receive a Units 3 and 4 sequence you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL credit:** you will be eligible for a minimum of four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.



# APPLIED FASHION DESIGN AND TECHNOLOGY

## STUDY SUMMARY VCE VET

### APPLIED FASHION DESIGN AND TECHNOLOGY



The VCE VET Applied Fashion Design and Technology program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with a broad range of knowledge and skills to pursue a career or further training in the fashion industry.

#### What qualification/s will I receive?

The VCE VET Applied Fashion Design and Technology program enables you to receive the Certificate II in Applied Fashion Design and Technology and a statement of attainment for selected units of competency from the Certificate III in Applied Fashion Design and Technology. These nationally recognised qualifications are drawn from the LMT07 Textiles, Clothing and Footwear Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn?

VCE VET Applied Fashion Design and Technology will provide you with basic design and development skills and knowledge to prepare for work in the fashion industry. This program allows for creative expression to be developed and displayed in the practical projects undertaken. Opportunities will be provided to acquire and develop skills in sewing, design processes, working with patterns, applying quality standards and interpreting basic sketches. Units 3 and 4 of the program include identifying fibres and fabrics, fabric performance and handling, garment repairs, alterations, basic patternmaking principles, preparing and marketing design concepts.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to six units towards your VCE: four units at Units 1 and 2 level and a Units 3 and 4 sequence. If you receive a Units 3 and 4 sequence, you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL:** you will be eligible for up to six credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

The VCE VET Applied Fashion Design and Technology program will assist you in pursuing a career in the fashion industry through vocational or higher education pathways. Completion of Certificate II in Applied Fashion Design and Technology provides you with the opportunity to be employed as a junior in the fashion industry, whilst Certificate III prepares you for supervisory roles, specialised technical tasks or multi-skilled roles within a production environment. With additional training and experience, employment opportunities may include: clothing tradesperson, product tester/inspector, product dispatcher, garment cutter, pattern maker, designer or milliner. Established fashion designers can also undertake careers in small business focusing on the production of individual garments or seasonal clothing ranges.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/appliedfashion/appliedfashion.html](http://www.vcaa.vic.edu.au/vet/programs/appliedfashion/appliedfashion.html)

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# ART

## STUDY SUMMARY

### ART 2010–2015

The accreditation period for VCE Art has been extended until 31 December 2015.

**Please Note:** This study summary comprises excerpts from the VCE Art Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/art/artindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/art/artindex.aspx)) to view the full accredited Study Design and other resources.

#### **Rationale**

The VCE Art study recognises art as an integral part of our lives. Art is a potent and dynamic visual language through which we are able to communicate personal experiences, ideas, cultural values and beliefs. In both the process of making and examining art, students can realise the power to inspire change through imagination, creativity and innovation.

Within the VCE Art study, theoretical research and investigation informs artmaking. Students are encouraged to recognise the interplay between research and artmaking. This provides students with an informed context that supports an awareness of art as a tool for cultural and personal communication, in addition to providing stimulus and inspiration for their own artmaking. The study acknowledges the value of creativity and analytical thinking in preparing students for today's world by encouraging imagination, flexibility, adaptability and risk-taking. Students develop their visual language through personal and independent learning by combining a focused study of artworks with practical artmaking.

VCE Art provides the opportunity to investigate the role of art in the world through a study of historical and contemporary cultures. The Art study challenges students to articulate their understanding of the meanings and messages contained within artworks and to examine the effects of artworks upon the viewer. Throughout their study, students develop skills in research, analysis and arts criticism to interpret and debate the issues that are raised and, in response, they form and support personal points of view. Through exploration and experimentation using art forms, materials, techniques and processes, students progressively develop their own artworks and develop an awareness of appropriate health and safety practices.

#### **Structure**

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

#### **Outcomes**

*Outcomes* define what students will know and be able to do as a result of undertaking the study.

*Outcomes* include a summary statement and the key knowledge and skills that underpin them.

Only the summary statements of the outcomes have been reproduced below and must be read in conjunction with the key knowledge and skills published in the study design.

#### **Unit 1**

##### **Outcome 1**

On completion of this unit the student should be able to analyse and interpret a variety of artworks using the Formal Framework and the Personal Framework.

### **Outcome 2**

On completion of this unit the student should be able to present visual creative responses that demonstrate their personal interests and ideas through trialling techniques, materials and processes.

## **Unit 2**

### **Outcome 1**

On completion of this unit the student should be able to analyse, interpret, compare and contrast artworks from different cultures using the Formal Framework and the Cultural Framework.

### **Outcome 2**

On completion of this unit the student should be able to demonstrate technical and artistic development in the presentation of visual responses that include one finished artwork, through the exploration of selected media, materials and techniques.

## **Unit 3**

### **Outcome 1**

On completion of this unit the student should be able to use the Analytical Frameworks to analyse and interpret artworks produced before 1970 and artworks produced since 1970, and compare and contrast the meanings and messages of artworks produced before 1970 with those of artworks produced since 1970.

### **Outcome 2**

On completion of this unit the student should be able to explore personal ideas and concepts through a conceptual and practical investigation including at least one finished artwork, using selected Analytical Frameworks to reflect upon and annotate their work.

## **Unit 4**

### **Outcome 1**

On completion of this unit the student should be able to discuss and debate an art issue using selected artist/s works as context, and present their informed opinion with reference to artworks and with the support of selected commentaries and relevant aspects of the Analytical Frameworks.

### **Outcome 2**

On completion of this unit the student should have progressively communicated ideas, directions and/or personal concepts in a body of work that includes at least one finished artwork, having used selected Analytical Frameworks to underpin reflections on their artmaking.

## **Entry**

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

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### **Units 1 and 2**

Individual school decision on levels of achievement.

#### **Units 3 and 4**

School-assessed Coursework, School-assessed Task, and an end-of-year examination:

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

# AUTOMOTIVE

## STUDY SUMMARY VCE VET

### AUTOMOTIVE



Certificate II in Automotive Studies (Pre-vocational) is state accredited curriculum which offers students the opportunity to develop their skills and knowledge across a range of automotive sectors including automotive mechanical and electrical, vehicle body panel beating, spray painting, trimming and making; and vehicle engine reconditioning. The VCE VET Automotive program is a work ready pre-employment course designed to meet the needs of students wishing to pursue a career in the automotive industry through study pathway options, such as an apprenticeship or higher education.

#### What qualification will I receive?

If you satisfactorily complete the VCE VET Automotive program, you will receive 22015VIC Certificate II in Automotive Technology Studies. This certificate is state accredited curriculum and is issued by a Registered Training Organisation (RTO).

#### What will I learn?

VCE VET Automotive will provide you with a basic operational knowledge of a range of automotive technologies, the ability to apply a range of skills appropriate to enter the automotive industry and to apply solutions to a range of problems. Core units of competency in the program include carry out industry research and apply safe working practices. The remainder of the program is made up of electives, allowing you to choose from streams in maintenance, mechanical, electrical, panel beating, painting, trimming, body making and engine reconditioning.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level and a Unit 3 and 4 sequence. If you receive a Units 3 and 4 sequence, you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Completion of Certificate II in Automotive Studies (Pre-vocational) provides you with a pathway into the automotive industry through an apprenticeship or higher education. With additional training and experience, future employment opportunities may include trimmer, detailer, panel beater, painter, light vehicle mechanic, heavy vehicle mechanic, motorcycle mechanic. Higher education pathways can lead to roles such as an automotive engineer.

Automotive apprenticeships are available in four industry specific strands. These are electrical, mechanical, mechanics and vehicle body. Each strand has individual occupational streams and their own specialist qualifications. For example, mechanical – diesel fitter, heavy vehicle road transport, motorcycle.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/automotive/automotive.html](http://www.vcaa.vic.edu.au/vet/programs/automotive/automotive.html)



# **BIOLOGY**

## **STUDY SUMMARY VCE BIOLOGY 2013–2016**

Please Note: This study summary comprises excerpts from the VCE Biology Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/biology/biologyindex.html>) to view the accredited Study Design and other resources.

### **Rationale**

Biology is the study of living things from familiar, complex multicellular organisms that live in the many different habitats of our biosphere to single celled micro-organisms that live in seemingly inhospitable conditions. It is a study of the dynamic relationships between living things, their interdependence, their interactions with the non-living environment, and the processes that maintain life and ensure its continuity. Biology enables students to understand that despite the diverse ways of meeting the challenges of survival, all living things have many structural and functional characteristics in common.

Modern biology draws on increasingly specialised fields of bioscience such as biochemistry, neuroscience, genetics, evolutionary biology, behavioural science, and cell and molecular biology including studies of genomics and proteomics. It makes connections between these fields and the disciplines of physics, chemistry, earth science and space sciences in exploring the nature of past and present life, and the possibility of life forms beyond our planet.

Students acquire knowledge and skills of inquiry that help them to examine critically issues that arise in their own lives and in the public domain, to contribute to debate and to take part in making decisions about their own health and wellbeing and that of society. They build an understanding of the interconnectedness of all living things and their environment. The values and attributes that students develop will help them to recognise the strengths and limitations of science, respect evidence and be sensitive to differences in views and beliefs held by others. They will be able to work collaboratively and yet state their own views from an informed position.

The study of biology prepares students for continuing studies in bioscience and entry into the workforce in a wide range of careers, including those not normally thought of as depending on bioscience. Much of our economic activity is generated through advances in bioscience research, in environmental, medical and associated biotechnologies, and in parallel sciences such as bioinformatics.

Students develop knowledge of bioscience and skills of science inquiry and the values and attributes that will help them to consider issues and implications associated with the application of biological techniques and technologies.

### **Structure**

The study is made up of four units:

Unit 1: Unity and diversity

Unit 2: Organisms and their environment

Unit 3: Signatures of life

Unit 4: Continuity and change

Each unit contains two areas of study

### **Entry**

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



secondary education. All VCE studies are benchmarked against comparable national and international standards.

### **Unit 1: Unity and diversity**

In this unit students examine the cell as the structural and functional unit of the whole organism. Students investigate the needs of individual cells, how specialised structures carry out cellular activities and how the survival of cells depends on their ability to maintain a dynamic balance between their internal and external environments.

Whether life forms are unicellular or multicellular, whether they live in the depths of the ocean or in the tissues of another living thing, all are faced with the challenge of obtaining nutrients and water, a source of energy, a means of disposing of their waste products, and a means of reproducing themselves.

Though there are many observable differences between living things, they have many fundamental features and biological processes in common. Students explore the diversity of organisms and look for patterns of similarities and differences. They investigate how the structure and functioning of interdependent systems in living things assist in maintaining their internal environment. They relate differences in individual structures and systems to differences in overall function.

As students consider the development of ideas and technological advances that have contributed to our knowledge and understanding of life forms and cell biology, they come to understand the dynamic nature of science. Students investigate technological applications and implications of bioscientific knowledge.

### **Unit 2: Organisms and their environment**

The rich diversity of Australian ecosystems provides a variety of contexts for students to study the relationships between living things and their environment. Students investigate particular sets of biotic and abiotic factors that operate in different places in the biosphere, and how these factors influence the kinds of organisms that live there. Students examine how organisms in their particular habitats are part of the integrated and naturally self-sustaining systems in which energy flows and matter is cycled between the living and non-living components of the environment.

Students investigate how features possessed by organisms affect their fitness and reproductive success, in relation to their habitats. They consider how species are affected by changes in environmental conditions, whether natural or human-induced.

In this unit students investigate what changes have taken place in selected ecosystems, and how ecological principles can be applied to conserve natural ecosystems, to restore damaged ones and to ensure sustainability of the biosphere. Students investigate how technologies are being applied to monitor natural ecosystems and to manage systems developed to provide resources for humans.

### **Unit 3: Signatures of life**

In this unit students consider the molecules and biochemical processes that are indicators of life. They investigate the synthesis of biomacromolecules and biochemical processes that are common to autotrophic and heterotrophic life forms. Students consider the universality of DNA and investigate its structure; the genes of an organism, as functional units of DNA and code for the production of a diverse range of proteins in an organism.

Students investigate the significant role of proteins in cell functioning; how technological advances have enabled scientists to determine differences in the molecular structure of proteins, how the structure of a protein relates to its function in an organism's tissues, and how technological advances have given rise to applications such as the design of proteins for specific purposes. Students consider advances in proteomics applied, for example, to medical diagnosis.

Students investigate how cells communicate with each other at molecular level in regulating cellular activities; how they recognise 'self' and 'non-self' in detecting possible agents of attack; and how physical barriers and immune responses can protect the organism against pathogens.

Students consider the technological advances that have contributed to our knowledge and understanding of molecular biology and thereby appreciate the dynamic nature of science.

Students apply concepts related to the structure, function, activities, needs and regulated death of cells.

#### **Unit 4: Continuity and change**

In this unit students examine evidence for evolution of life forms over time. Students explore hypotheses that explain how changes to species have come about. In addition to observable similarities and differences between organisms, students explore the universality of DNA and conservation of genes as evidence for ancestral lines of life that have given rise to the present biodiversity of our planet.

Students investigate how the study of molecular genetics has expanded into genomics – the study of whole sets of genes possessed by an organism. Information obtained by studying genomes and functional genomics has provided insight into gene expression and regulation, and relationships between species.

Students study how genes are transmitted from generation to generation by examining meiosis and patterns of inheritance including pedigree analysis. Students consider the relationship between heritable variations and the environment in accounting for changes to species over time, and for speciation and extinction.

Students examine the interrelationships between biological, cultural and technological evolution. As they consider the historical development of ideas and technological advances that have contributed to our knowledge and understanding of inheritance and evolutionary biology, students come to understand the dynamic nature of science, the human factors that influence developments in science and its increasing reliance on evidence. Students investigate emerging technological applications and the implications of advances in molecular genetics.

The ability to apply technologies that can change the genetic composition of individual organisms and species, including humans, raises controversial issues for individuals and society. Students examine these issues and consider their implications from a variety of perspectives.

#### **Assessment**

##### **Satisfactory Completion**

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

##### **Levels of Achievement**

###### ***Units 1 and 2***

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

###### ***Units 3 and 4***

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

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

- Unit 3 School-assessed Coursework: 20 per cent
- Unit 4 School-assessed Coursework: 20 per cent
- End-of-year examination: 60 per cent.



# BUILDING AND CONSTRUCTION

## STUDY SUMMARY VCE VET

### BUILDING AND CONSTRUCTION



Certificate II in Building and Construction (Preapprenticeship) is state accredited curriculum which offers students prevocational training in the building and construction industry. The VCE VET program is designed to give students the opportunity to gain experience across a number of building trades including bricklaying, carpentry, painting and decorating, wall and ceiling lining, wall and floor tiling and solid plastering.

#### What qualification will I receive?

The VCE VET Building and Construction program enables you to partially complete 21844VIC Certificate II in Building and Construction (Bricklaying, Carpentry, Painting and Decorating – Preapprenticeship). This certificate is state accredited curriculum and is issued by a Registered Training Organisation (RTO).

#### What will I learn?

The VCE VET Building and Construction program provides you with the knowledge and skills to enhance your employment prospects in the building and construction industry. The program offers partial completion of the preapprenticeship and includes units such as safe handling of plant and power tools, quality principles for the building industry, calculations and workplace documents and plans. Stream specific units focus on providing foundation skills necessary for the chosen sectors in industry areas: carpentry, bricklaying, painting and decorating, wall and ceiling lining, wall and floor tiling and solid plastering.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level and a Unit 3 and 4 sequence. If you receive a Units 3 and 4 sequence, you will be eligible for an increment towards your ATAR (10% of the average of the primary four scaled studies).

**VCAL:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Further training in this qualification is required for completion of the preapprenticeship which can lead into an apprenticeship in the building and construction industry, in areas such as general construction, painting and decorating, bricklaying/block laying or carpentry – framework/formwork/finishing. As a qualified tradesperson, potential occupations may include: carpenter, joiner, painter or bricklayer. This qualification also provides a pathway into para professional careers through vocational or higher education into roles such as a building project manager, surveyor or site manager.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/building/buildconst.html](http://www.vcaa.vic.edu.au/vet/programs/building/buildconst.html)

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# **BUSINESS MANAGEMENT**

## **STUDY SUMMARY**

### **BUSINESS MANAGEMENT 2010–2015**

The accreditation period for VCE Business Management has been extended until 31 December 2015.

**Please Note:** This study summary comprises excerpts from the VCE Business Management Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/busmngmnt/businessindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/busmngmnt/businessindex.aspx)) to view the accredited Study Design and other resources.

#### **Rationale**

In contemporary Australian society, there is a wide variety of business organisations in terms of size, ownership, objectives, resources and location. These organisations are managed by people who establish systems and processes to achieve a range of objectives.

VCE Business Management examines the ways in which people at various levels within a business organisation manage resources to achieve the objectives of the organisation. Students develop an understanding of the complexity, challenges and rewards that come from business management and gain an insight into the various ways resources can be managed in small, medium and large-scale organisations.

The study recognises that there is a range of management theories. In each unit students examine some of these theories and, through exposure to real business scenarios and direct contact with business, compare them with management in practice.

In studying VCE Business Management, students develop knowledge and skills that enhance their confidence and ability to participate effectively, as socially responsible and ethical members of the business community, and as informed citizens, consumers and investors.

#### **Structure**

The study is made up of four units:

Unit 1: Small business management

Unit 2: Communication and management

Unit 3: Corporate management

Unit 4: Managing people and change

Each unit contains between two and four areas of study.

#### **Entry**

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

## **Unit 1: Small business management**

Small rather than large businesses make up the large majority of all businesses in the Australian economy. It is the small business sector that provides a wide variety of goods and services for both consumers and industries, such as manufacturing, construction and retail. This, combined with employment opportunities, makes the small business sector a vital component in the success, growth and stability of Australia. Small businesses are tangible to students as they are visible and accessible in daily life. This unit provides an opportunity for students to explore the operations of a small business and its likelihood of success.

## **Unit 2: Communication and management**

This unit focuses on the importance of effective communication in achieving business objectives. Students investigate communication both internal and external to the business. They develop knowledge of aspects of business communication and are introduced to skills related to its effective use in different contexts. The vital functions of marketing and public relations are considered, with students developing an understanding of the important role these functions play in the ultimate success of a business.

## **Unit 3: Corporate management**

In this unit students investigate how large-scale organisations operate. Students examine the environment (both internal and external) in which large-scale organisations conduct their business, and then focus on aspects of individual business' internal environment and how the operations of the business are managed. Students develop an understanding of the complexity and challenge of managing large-scale organisations and have the opportunity to compare theoretical perspectives with practical applications.

## **Unit 4: Managing people and change**

This unit continues the examination of corporate management. It commences with a focus on the human resource management function. Students learn about the key aspects of this function and strategies used to most effectively manage human resources. The unit concludes with analysis of the management of change. Students learn about key change management processes and strategies and are provided with the opportunity to apply these to a contemporary issue of significance.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

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

# BUSINESS ADMINISTRATION

## STUDY SUMMARY VCE VET

### BUSINESS



The VCE VET Business program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with a broad range of knowledge and skills to pursue a career or further training in the business industry. The Certificate II and III in Business provide a pathway for students who wish to continue with their business studies into higher education.

#### What qualification/s will I receive?

The VCE VET Business program enables you to receive the following nationally recognised qualification:

- Program 1: Certificate II in Business
- Program 2: Certificate II in Business as well as a statement of attainment for selected units of competency from Certificate III in Business.

These qualifications are drawn from the BSB07 Business Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Business*

**VCE credit:** you will be eligible for up to four units at Units 1 and 2 level.

**VCAL credit:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Business is an entry level qualification which provides you with the knowledge and skills to enhance your employment prospects in a business or office environment. This certificate will give you an understanding of business fundamentals within the Australian context and will help you gain employment in an entry level administrative or customer service role. Depending on the electives chosen, the VCE VET program includes communicating in the workplace, organising and completing work activities, producing simple word processed documents, using business technology and creating and using spread sheets.

**Career opportunities:** Completion of Certificate II in Business will assist you in pursuing a career in a business or related environments through vocational or higher education pathways. Potential occupations may include administration or clerical assistant, data entry operator, office junior or receptionist. This qualification reflects the role of individuals who perform a range of mainly routine tasks using limited practical skills and fundamental operational knowledge in a defined context, working under direct supervision.



# CHEMISTRY

## STUDY SUMMARY

### VCE CHEMISTRY 2013–2016

**Please Note:** This study summary comprises excerpts from the VCE Chemistry Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/chemistry/chemindex.html>) to view the accredited Study Design and other resources.

#### Rationale

Chemistry is a key science in explaining the workings of our universe through an understanding of the properties and interaction of substances that make up matter. Most processes, from the formation of molecules in outer space to the complex biological interactions occurring in cells, can be described by chemical theories. Although there are no sharp boundaries between sciences such as chemistry, physics and biology, chemistry is used to explain natural phenomena at the molecular level, as well as create new materials such as medicines and polymers.

The development of modern society has been intimately linked with the successful integration of chemical knowledge into new technologies. This continues with emerging fields such as biotechnology and nanotechnology.

There are many unanswered questions in science, and many unexplained phenomena such as the language of the brain and the evolution of climate. Over time, chemistry will play a key role in answering some of these questions as well as providing a sustainable environment for the future.

Studying Chemistry can enrich students' lives through the development of particular knowledge, skills and attitudes, and enable them to become scientifically capable members of society. It will also provide a window on what it means to be a scientific researcher, working as a member of a community of practice, including insight into how new ideas are developed and investigated, and how evidence or data collected is used to expand knowledge and understanding of chemistry.

Many people develop an 'applied' knowledge of chemistry through their careers and day-to-day pursuits. Chemistry permeates numerous fields of endeavour, including agriculture, art, biochemistry, dietetics, engineering, environmental studies, food, forensic science, forestry, horticulture, law, medicine, oceanography, pharmacy, sports science and winemaking.

The chemistry undertaken in this study is representative of the discipline and the major ideas of chemistry. Some students will develop a passion for chemistry and be inspired to pursue further studies. All students, however, should become more informed, responsible decision-making citizens, able to use chemical knowledge and scientific arguments in their everyday lives and to evaluate and debate important contemporary issues such as the future of our environment and its management.

#### Structure

The study is made up of four units:

Unit 1: The big ideas of chemistry

Unit 2: Environmental chemistry

Unit 3: Chemical pathways

Unit 4: Chemistry at work

Each unit contains two areas of study.

## Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional reading as prescribed by their teacher. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education. All VCE studies are benchmarked against comparable national and international standards.

## Unit 1: The big ideas of chemistry

The story of chemistry begins with the building of the Periodic Table from speculation, debate and experimental evidence. The Periodic Table provides a unifying framework for studying the chemistry of the elements using their chemical and physical properties to locate their position. The electron configuration of an element, its tendency to form a particular bond type and its ability to behave as an oxidant or reductant can all be linked to its position in the Periodic Table.

A study of the development of our understanding about the internal structure of the atom illustrates to students the collaborative and step-by-step way in which scientific theories and models are formed.

Students study the models for metallic, ionic and covalent bonding. They consider the widespread use of polymers as an example of the importance of chemistry to their everyday lives. Students investigate the uses of materials and how these have changed. Examples could include improved corrosion prevention or limitation and carbon nanotubes and self-repairing materials.

Students are introduced to the development and application of 'smart' materials. Developing new materials has escalated with the use of synchrotron science that explores particle behaviour at an ever decreasing size. Some examples of new materials are alloys, fibres and compounds incorporating polymers, ceramics, biopolymers, films and coatings.

Students use the language of chemistry, its symbols and chemical formulas and equations, to explain observations and data collected from experiments.

## Unit 2: Environmental chemistry

Living things on earth have evolved to use water and the gases of the atmosphere in the chemical reactions that sustain them. Water is used by both plants and animals to carry out their energy-producing reactions, dissolve their nutrients and transport their wastes. The atmosphere supplies life-giving gases, provides temperature that sustains life, and gives protection from harmful radiation.

Algae blooms, salinity, acid rain, depletion of ozone, photochemical smog, and global warming continue to have an impact on living things and the environment. Students will investigate how chemistry is used to respond to the effects of human activities on our environment.

Typical tasks of environmental chemists include monitoring the concentration of wastes in the effluent from an industrial plant and monitoring air quality. Quantitative chemical calculations play an essential role in these tasks and students are introduced to the types of calculations used every day by analytical chemists.

The principles and applications of green chemistry – benign by design – to processes and practices are included. The goal of these processes is to achieve hazard-free, waste-free, energy efficient synthesis of non-toxic products whilst maintaining efficiency. Students are introduced to new, cleaner and more efficient chemical processes that have been designed using green chemistry principles. Students continue to use and develop the language of chemistry, its symbols and chemical formulas and equations, to explain observations and data collected from experiments.

### **Unit 3: Chemical pathways**

In this unit students investigate the scope of techniques available to the analytical chemist. Chemical analysis is vital in the work of the forensic scientist, the quality control chemist at a food manufacturing plant, the geologist in the field, and the environmental chemist monitoring the health of a waterway.

Each technique of analysis depends on a particular property or reaction of the chemical being investigated. Consequently, an understanding of the chemistry is necessary in learning how and why the techniques work. Some techniques of analysis have been refined over many years to make them quicker and more accurate. Other techniques are now used in combination to provide higher and more reliable levels of accuracy, for example gas chromatography and mass spectrometry, or carbon-13 and proton nuclear magnetic resonance spectroscopy.

Students investigate organic reaction pathways and the chemistry of particular organic molecules. A detailed knowledge of the structure and bonding of organic chemicals is important to the work of the synthetic organic chemist. In the wake of the work done on the genome project, synthesis of new medicines is one of the growth industries for the coming decades. Students investigate the role of organic molecules in the generation of biochemical fuels and medicines.

Students use the language and symbols of chemistry, and chemical formulas and equations to explain observations and data collected from experiments.

Students complete an extended experimental investigation drawn from Area of Study 1 or Area of Study 2.

### **Unit 4: Chemistry at work**

In this unit students investigate the industrial production of chemicals and the energy changes associated with chemical reactions.

Chemical reactions produce a diverse range of products we use and depend on every day. Access to large quantities of raw materials and reliable energy supplies for these reactions is necessary to maintain continuous production of high quality useful chemicals. Features that affect chemical reactions such as the rate and yield or equilibrium position are investigated. Students explore how an understanding of these features is used to obtain optimum conditions in the industrial production of a selected chemical.

Our society uses a range of energy sources, including coal to generate electricity and gas for heating, oil for transport, and solar and wind for small and large scale production of electricity. Students investigate the renewability of a range of energy sources and consider their energy efficiencies.

Galvanic cells and electrolytic cells operate by transforming chemical and electrical energy. Students investigate their operating principles, both in the laboratory and in important commercial and industrial applications including fuel cells. These cells are used in smaller appliances such as mobile phones, CD players, personal computers, and in larger scale systems such as cars and motor bikes, and in the production of chemicals.

Students continue to use the language and symbols of chemistry, and chemical formulas and equations to explain observations and data collected from experiments.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

- Unit 3 School-assessed Coursework: 20 per cent
  - Unit 4 School-assessed Coursework: 20 per cent
  - End-of-year examination: 60 per cent.
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# COMMUNITY SERVICES

## STUDY SUMMARY VCE VET

### COMMUNITY SERVICES



The VCE VET Community Services program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with a broad range of knowledge and skills to pursue a career or further training in the community services sector.

#### What qualification/s will I receive?

The VCE VET Community Services program enables you to receive the Certificate II in Community Services Work and a statement of attainment of selected units of competency from Certificate III in Community Services Work and Certificate III in Children's Services. These nationally recognised qualifications are drawn from the CHC08 Community Services Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn?

The VCE VET Community Services program offers you the opportunity to learn about the community services sector and explore specific contexts of work. Skills will be developed in communication, information provision and processing, administration support, networking and group support. Units 3 and 4 of the program offers scored assessment and incorporate units such as working effectively in the leisure and health industry and operating under a casework framework, with elective units from Children's Services or Community Services Work. There are many volunteering opportunities available whilst undertaking these certificates.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to five units towards your VCE: three units at Units 1 and 2 level and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

The VCE VET Community Services program will assist you in pursuing a career in the community services sector, in areas such as child care, aged care, home and community care, alcohol and other drugs work, disability work, social housing or mental health work. With additional training and experience, future employment opportunities may include a community health worker, counsellor, school support worker, case manager. Pathways are also available from this qualification into health sector qualifications such as allied health assistance and nursing. Further study through vocational or higher education can lead to employment in areas such as social work and education.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/community/commervice.html](http://www.vcaa.vic.edu.au/vet/programs/community/commervice.html)

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# COMPUTER ASSEMBLY AND REPAIR

Please see Mrs Janene Strange VET Co-ordinator for more details

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## DANCE

### DANCE



#### FOR CURRENT STUDENTS IN 2012

Certificate II in Dance is state accredited curriculum which offers students the opportunity to develop knowledge and skills in a variety of dance routine roles. The VCE VET Dance program can be delivered through a wide variety of dance styles including ballet, funk, hip hop, tap, social dance and cultural dance styles. Students will learn the fundamental skills in a range of dance disciplines and a pathway to further education and training in the entertainment industry.

#### What qualification will I receive?

The VCE VET Dance program enables you to receive the 21764VIC Certificate II in Dance. The qualification is issued by a Registered Training Organisation (RTO).

#### What will I learn?

Certificate II in Dance will provide you with the technical and performance skills to begin the process of establishing a career in the entertainment industry. You will learn the necessary knowledge and skills to be able to participate in a variety of dance routines. Units 1 and 2 of the program include developing basic levels of physical condition for dance performance and basic dance techniques, sourcing information on the history and theory of dance and applying it to an area of work. Units 3 and 4 offers scored assessment and incorporates units such as sourcing and applying entertainment industry knowledge, preparing for a dance performance, refining basic dance techniques and applying basic dance techniques for performances.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four students (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Completion of Certificate II in Dance will provide you with the technical and performance skills, knowledge and attitudes to begin the process of establishing a career within the dance or entertainment industry. With additional training and experience, future employment opportunities may include dancer, performer, choreographer.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/dance/dance.html](http://www.vcaa.vic.edu.au/vet/programs/dance/dance.html)

# DRAMA

## **STUDY SUMMARY DRAMA 2007–2013**

The accreditation period expires on 31 December 2013.

**Please Note:** This study summary comprises excerpts from the VCE Drama Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/drama/dramaindex.html>) to view the full accredited Study Design and other resources.

### **Rationale**

The study of Drama focuses on the creation and performance of characters, narratives and stories. Students draw on a range of content and use role and expressive skills to create, embody and present dramatic works. They analyse the development of their performances and explore the actor–audience relationship. Students develop an understanding of dramatic elements, stagecraft and theatrical conventions appropriate to performance styles from a range of cultural contexts. They view and analyse performances by professional and other drama practitioners.

The study provides students with opportunities to explore the ways in which drama represents social, political, and historical contexts, narratives and stories. Students develop an understanding of the language of drama including terminology and expressions appropriate to the context of the drama that students create, perform and analyse. Students develop an appreciation of drama as an art form through participation, criticism and aesthetic understanding.

The study of drama provides students with pathways to further studies in fields such as acting, direction, playwriting, production design, production management and studies in drama criticism.

### **Structure**

The study is made up of four units:

Unit 1: Dramatic storytelling

Unit 2: Creating Australian drama

Unit 3: Ensemble performance

Unit 4: Solo performance

Each unit contains between two and four areas of study.

### **Entry**

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

## **Unit 1: Dramatic storytelling**

This unit focuses on creating, presenting and analysing a devised performance that includes real or imagined characters, based on personal, cultural and/or community experiences and stories.

Students examine storytelling through the creation of solo and/or ensemble devised performance/s and manipulate expressive skills in the creation and presentation of characters. They develop an awareness and understanding of how characters are portrayed in naturalistic and non-naturalistic performance style/s. Students also gain an awareness of how performance is shaped and given meaning. They investigate a range of stimulus material and learn about stagecraft, theatrical conventions and performance styles from a range of social and cultural contexts.

This unit also involves analysis of a student's own performance work and analysis of a performance by professional and other drama practitioners.

In this unit students use performance styles from a range of contexts associated with naturalism and non-naturalism. Descriptions of the terms such as naturalism, non-naturalism and stimulus material, dramatic elements, stagecraft, theatrical conventions, expressive skills and performance styles are provided in the Glossary on pages 35 to 37 of the study design.

## **Unit 2: Creating Australian drama**

This unit focuses on the use and documentation of the processes involved in constructing a devised solo or ensemble performance. Students create, present and analyse a performance based on a person, an event, an issue, a place, an art work, a text and/or an icon from a contemporary or historical Australian context.

Students use a range of stimulus material in creating performance and examine performance styles from a range of cultural and historical contexts. Theatrical conventions appropriate to the selected performance styles are also explored. Students knowledge of how dramatic elements are enhanced or manipulated through performance is further developed in this unit.

This unit also involves analysis of a student's own performance work as well as the performance of an Australian work. An Australian work might:

- be written, adapted or devised by Australian writers or theatre-makers;
- reflect aspects of the Australian identity, for example the indigenous voice, the Celtic perspective, the twentieth or twenty-first century migrant experience, the refugee experience, the urban and bush perspectives.

In this unit, students use performance styles from a range of historical, cultural and social contexts including styles associated with non-naturalism.

Descriptions of the terms such as naturalism, non-naturalism and stimulus material, dramatic elements, stagecraft, theatrical conventions, expressive skills and performance styles are provided in the Glossary on pages 35 to 37 of the study design.

## **Unit 3: Ensemble performance**

This unit focuses on non-naturalistic drama from a diverse range of contemporary and/or cultural performance traditions. Non-naturalistic performance styles and associated theatrical conventions are explored in the creation, development and presentation of an ensemble performance. Collaboration to create, develop and present ensemble performance is central to this performance. Students use and manipulate dramatic elements, expressive skills and performance styles to enhance performance. They select stagecraft and theatrical conventions as appropriate to the performance. Students also document and evaluate stages involved in the creation, development and presentation of the ensemble performance.

A professional performance that incorporates non-naturalistic performance style/s and production elements selected from the prescribed *VCE Unit 3 Drama Playlist* published annually in the *VCAA Bulletin* will also be analysed.

Descriptions of terms such as naturalism, non-naturalism, stimulus material, dramatic elements, stagecraft, theatrical conventions, expressive skills and performance styles are provided in the Glossary on pages 35 to 37 of the study design.

## **Unit 4: Solo performance**

This unit focuses on the use of stimulus material and resources from a variety of sources to create and develop character/s within a solo performance. Students complete two solo performances. For a short solo performance they develop practical skills of researching, creating, presenting, documenting and analysing a solo performance work. In the development of a second solo performance, they devise, rehearse and perform an extended solo performance in response to a prescribed structure published by the Victorian Curriculum and Assessment Authority. The processes involved in the creation and presentation of character/s in solo performance are analysed and evaluated.

### **Prescribed structure for solo performance**

Students will select one solo performance from the *Drama Solo Performance Examination* list published annually in the *VCAA Bulletin*.

Descriptions of terms such as naturalism, non-naturalism, stimulus material, dramatic elements, stagecraft, theatrical conventions, expressive skills and performance styles are provided in the Glossary on pages 35 to 37 of the study design.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Drama students' level of achievement will be determined by School-assessed Coursework, an end-of-year performance examination and an end-of-year written examination. Percentage contributions to the study score in VCE Drama are as follows:

- Units 3 and 4 School-assessed Coursework: 40 per cent
  - End-of-year performance examination: 35 per cent
  - End-of-year written examination: 25 per cent.
-

# ENGINEERING

## STUDY SUMMARY

### VCE VET

#### ENGINEERING



Certificate II in Engineering is state accredited curriculum which provides pre-employment training and pathways in the engineering, manufacturing or other related industries. The VCE VET Engineering program enables students to gain recognised credentials and to make informed choices of vocation or career path.

#### What qualification will I receive?

The VCE VET Engineering program enables you to receive the 22019VIC Certificate II in Engineering Studies. This qualification is issued by a Registered Training Organisation (RTO).

#### What will I learn?

Certificate II in Engineering Studies will provide you with the skills and knowledge to undertake an apprenticeship in the engineering trades or provide you with a foundation for professional engineering roles. Units 1 and 2 cover areas in basic machine processing, fabrication techniques, using power tools and using computers for engineering related work activities. Depending on the electives chosen, Units 3 and 4 offers scored assessment and incorporates units such as producing basic engineering sketches and drawings, handling engineering materials and assembling and testing electronic engineering equipment and making it operational.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Certificate II in Engineering Studies will assist you in pursuing a career in the engineering, manufacturing or related industries through vocational or higher education pathways. Apprenticeships and traineeships can lead into a range of careers into roles in design, manufacture, installation and repair of a wide range of products. As a qualified tradesperson, occupations may include boiler maker, welder, tool/die maker, hydraulics/avionics/mechanical technician, draftsman, mechanical fitter. This qualification also provides a pathway into para professional careers in the engineering industry such as a Mechanical Engineer, Electrical Engineer and Surveyor.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/engineering/engineering.html](http://www.vcaa.vic.edu.au/vet/programs/engineering/engineering.html)



## **ENGLISH/ ENGLISH AS AN ADDITIONAL LANGUAGE**

### **STUDY SUMMARY**

### **ENGLISH/ENGLISH AS A SECOND LANGUAGE**

**Units 1–2: 2007–2014; Units 3–4: 2008–2014**

**The accreditation period has been extended until 31 December 2014.**

**Please Note:** This study summary comprises excerpts from the VCE English/English as a Second Language Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/english/index.html>) to view the full accredited Study Design and other resources.

### **Rationale**

The English language is central to the way in which students understand, critique and appreciate their world, and to the ways in which they participate socially, economically and culturally in Australian society.

The study of English encourages the development of literate individuals capable of critical and imaginative thinking, aesthetic appreciation and creativity. The mastery of the key knowledge and skills described in this study design underpins effective functioning in the contexts of study and work as well as productive participation in a democratic society in the twenty-first century.

The study design draws on interstate and international models and reflects recent developments in the study of English. Students will continue the learning established through the Victorian Essential Learning Standards (VELS) in the key discipline concepts of texts and language, and the dimensions of reading, writing, speaking and listening.

This study design will assist teachers to implement an English curriculum that is interesting and challenging for students with a wide range of expectations and aspirations. Teachers have the opportunity to select texts which will reflect the needs and interests of their students. The study of texts focuses on creating and analysing texts, understanding and interpreting texts, and moving beyond interpretation to reflection and critical analysis.

### **Structure**

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

### **Entry**

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

Eligibility for English as a Second Language (ESL) status at Units 1 and 2 level is a matter for school decision. At Units 3 and 4 level students need to meet the Victorian Curriculum and Assessment Authority criteria for enrolment in ESL. Schools should refer to the current year's VCE and VCAL Administrative Handbook for advice about student eligibility for ESL in Units 3 and 4. ESL students undertake the study as outlined in the Study Design. Schools should note where different requirements for ESL students are indicated. VCE English as a Second Language is suitable for students who will typically have English language proficiency at a minimum International English Language Testing System (IELTS) 4 level or its equivalent.

## **TEXT SELECTION FOR UNITS 1 AND 2**

### **English students**

Where Units 1 and 2 are taken as a sequence, students must read and study at least four set texts. The term ‘set text’ refers to texts chosen by the school for the achievement of Outcomes 1 and 2 in Units 1 and 2. For the achievement of Outcome 1 in each unit, students must read and study at least one set text. For the achievement of Outcome 2 in each unit, students must read and study at least one set text or its equivalent in a collection of shorter set texts. At least one set text in each unit should be an imaginative print text such as a novel, a play or a collection of short stories or poetry.

### **ESL students**

Across the Unit 1 and 2 sequence, ESL students must read and study at least three set texts. The term ‘set text’ refers to texts chosen by the school for the achievement of Outcomes 1 and 2 in Units 1 and 2. For the achievement of Outcome 1 in each unit, ESL students must read and study at least one set text. For the achievement of Outcome 2, Unit 1, students must read and study at least one set text or its equivalent in a collection of shorter set texts. For the achievement of Outcome 2, Unit 2, students should read and study a range of shorter texts selected by the school. At least one set text in each unit should be an imaginative print text such as a novel, a play or a collection of short stories or poetry.

### **All students**

For all students, no more than one of the set texts may be a film text. Other multimodal and/or non-print texts may be used to supplement studies of print texts. At least one of the set texts must be by an Australian or about Australians. Students are encouraged to read widely in both Units 1 and 2 in order to support the achievement of all outcomes.

### **Unit 1**

The focus of this unit is on the reading of a range of texts, particularly narrative and persuasive texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students will develop competence and confidence in creating written, oral and multimodal texts. The term ‘set text’ refers to texts chosen by the school for the achievement of Outcomes 1 and 2.

### **Unit 2**

The focus of this unit is on reading and responding to an expanded range of text types and genres in order to analyse ways in which they are constructed and interpreted, and on the development of competence and confidence in creating written, oral or multimodal texts. The term ‘set text’ refers to texts chosen by the school for the achievement of Outcomes 1 and 2.

## **TEXT SELECTION FOR UNITS 3 AND 4**

### **English students**

Across the Units 3 and 4 sequence, English students must read and study at least four selected texts. The term ‘selected text’ refers to a text chosen from the Text List published annually by the Victorian Curriculum and Assessment Authority in the *VCAA Bulletin*. For the achievement of Outcome 1 in each unit, students must read and study at least one selected text from Text List 1. For the achievement of Outcome 2 in each unit, students must read and study at least one selected text from Text List 2. At least one of the selected texts in each unit should be an imaginative print text such as a novel, a play or a collection of short stories or poetry.



## **ESL students**

Across the Units 3 and 4 sequence, ESL students must read and study at least three selected texts. The term ‘selected text’ refers to a text chosen from the Text List published annually by the Victorian Curriculum and Assessment Authority in the *VCAA Bulletin*. For the achievement of Outcome 1 in each unit, ESL students must read and study one selected text from Text List 1. For the achievement of Outcome 2, Unit 3, students must read and study at least one selected text from Text List 2. For the achievement of Outcome 2, Unit 4, students should read and study a range of shorter texts selected by the school. At least one of the selected texts in each unit should be an imaginative print text such as a novel, a play or a collection of short stories or poetry.

## **All students**

For all students, no more than one of the selected texts may be a film text. Other multimodal or non-print texts may be used to supplement studies of print texts. A film text may be selected from either Text List 1 or Text List 2 for study in Area of Study 1 or Area of Study 2, but not for study in both areas of study. Students are not permitted to write on more than one film in the examination. At least one of the selected texts should be by an Australian or about Australians. Students are expected to read widely in order to support the achievement of all outcomes.

## **Unit 3**

The focus of this unit is on reading and responding both orally and in writing to a range of texts.

Students analyse how the authors of texts create meaning and the different ways in which texts can be interpreted. They develop competence in creating written texts by exploring ideas suggested by their reading within the chosen Context, and the ability to explain choices they have made as authors. A list of prescribed Contexts will be published annually in the *VCAA Bulletin*.

## **Unit 4**

The focus of this unit is on reading and responding in writing to a range of texts in order to analyse their construction and provide an interpretation. Students create written or multimodal texts suggested by their reading within the chosen Context and explain creative choices they have made as authors in relation to form, purpose, language, audience and context.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### **Units 1 and 2**

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

#### **Units 3 and 4**

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE English and English as a Second Language students’ level of achievement will be determined by School-assessed Coursework and an end-of-year examination.

Percentage contributions to the study score in VCE English and English as a Second Language are as follows:

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

# **ENVIRONMENTAL SCIENCE**

## **STUDY SUMMARY**

### **VCE ENVIRONMENTAL SCIENCE 2013 - 2016**

**Please Note:** This study summary comprises excerpts from the VCE Environmental Science Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/envscience/envscindex.html>) to view the full accredited Study Design and other resources.

#### **Rationale**

Environmental Science provides the opportunity for students to understand the structure, function and diversity of natural ecosystems on this planet and evaluate the impacts of human activities on them. Students examine strategies to maintain and protect the ecological health of the environment while meeting the needs and desires of human populations.

Environmental Science investigates the interactions between natural and human systems. This study examines the application of environmental science to ecologically sustainable development and environmental management. Students should understand the values and attitudes that underpin environmental decisions and reflect on effective ways for modifying behaviour of individuals and groups for positive environmental outcomes.

While undertaking this study, students will develop skills in practical scientific investigations, environmental fieldwork techniques, report writing, research and analysis.

#### **Structure**

The study is made up of four units:

Unit 1: The environment

Unit 2: Monitoring the environment

Unit 3: Ecological issues: energy and biodiversity

Unit 4: Ecological sustainability

Each unit contains either two or three areas of study.

#### **Entry**

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

#### **Unit 1: The environment**

This unit focuses on the environment and its components. The function of ecosystems and the interactions in and between the ecological components will be investigated. The unit presents opportunities to consider the effects of natural and human-induced changes in ecosystems.

#### **Unit 2: Monitoring the environment**

This unit focuses on the characteristics of environmental indicators and their use in monitoring programs. Environmental indicator data will be defined, collected and interpreted.

### **Unit 3: Ecological issues: energy and biodiversity**

This unit focuses on two major ecological issues which provide challenges for the present and the future. The consequences on the atmosphere of natural and enhanced greenhouse effects, and issues of biodiversity and its significance in sustaining ecological integrity, will be examined.

### **Unit 4: Ecological sustainability**

This unit focuses on pollution and its relationship to the health of humans and the environment. It advances further understanding of managing the environment to ensure development meets human needs while maintaining ecological integrity of the environment.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

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

## STUDY SUMMARY VCE VET

### EQUINE INDUSTRY



Certificate II in Equine Industry is state accredited curriculum which provides access to direct employment opportunities in the equine or equine related industries, principally as stable or stud hand or as an assistant. The VCE VET Equine Industry program enables students to gain recognised credentials and to make an informed choice of their vocation or career path.

#### What qualification will I receive?

The VCE VET Equine Industry program enables you to receive the 21908VIC Certificate II in Equine Industry. This qualification is issued by a Registered Training Organisation (RTO).

#### What will I learn?

Certificate II in Equine Industry is an introductory course that prepares you for work in the equine industry. Units 1 and 2 covers units such as working in an equine organisation, safe handling and daily care of horses and developing a career path in the equine industry. Elective units include horse riding and driving, preparing horses for competition, assisting in the conduct of an equine industry event, caring for mares and foals and providing advice on equine products. Units 3 and 4 offers scored assessment and incorporates units such as horse observation, responding to equine injury and disease, equine anatomy and physiology and determining nutritional requirements for horses.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to five units towards your VCE: three units at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Certificate II in Equine Industry will assist you in pursuing a career in the equine or equine related industries through vocational or higher education pathways. Employment opportunities exist in areas such as horse breeding, racing, mounted police, veterinary nursing, biological science, retail and coaching. With additional training and experience, future employment opportunities may include animal attendant, stable or stud hand, groomer, horse breeder, harness/thoroughbred trainer, track rider.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/equine/equine.html](http://www.vcaa.vic.edu.au/vet/programs/equine/equine.html)



## **FINANCIAL SERVICES**

Please see Mrs Janene Strange VET Co-ordinator for more details

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## **FOOD AND TECHNOLOGY**

### **STUDY SUMMARY**

### **FOOD AND TECHNOLOGY 2011–2015**

**Please Note:** This study summary includes excerpts from the VCE Food and Technology Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/foodtech/foodtechindex.html>) to view the full accredited Study Design and other resources.

#### **Rationale**

VCE Food and Technology focuses on the importance of food in our daily lives from both a theoretical and practical point of view. The study enables students to apply their theoretical understanding of the relationship between food and technology as they develop skills in food preparation.

The food sector is dynamic, diverse and creative. Innovative food products are continually being introduced into the marketplace in response to changing social and consumer demands. Contemporary society is aware of the links between food, food processing, nutrition, health and well-being, and issues associated with these have become a high priority for consumers. VCE Food and Technology challenges students to make these links and provides them with the opportunities to acquire knowledge and skills to make informed choices when selecting, storing, purchasing, preparing and consuming foods that will contribute to a healthy lifestyle. Students also consider the importance of environmental issues and sustainability practices in food production, as well as the important role of technology in food product development and the way food is produced, processed, packaged and marketed.

Through this study students develop knowledge of the physical, chemical, sensory and functional properties of food and are able to apply this knowledge when using food in a practical situation. They develop and apply the knowledge and skills to prepare food safely and hygienically. Students use the design process, critical thinking and problem-solving skills to develop food products to suit specific situations or to meet the needs of individual consumers and their lifestyles. In this process, they also develop independent and cooperative learning skills.

The study may provide a foundation for pathways to food science and technology, consumer science, home economics, child care and education, community services and aged care, the hospitality and food manufacturing industries, and nutrition and health studies.

#### **Structure**

The study is made up of four units:

Unit 1: Food safety and properties of food

Unit 2: Planning and preparation of food

Unit 3: Food preparation, processing and food controls

Unit 4: Food product development and emerging trends

Each unit contains between two and four Areas of Study.

## **Entry**

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

### **Unit 1: Food safety and properties of food**

In this unit students study safe and hygienic food handling and storage practices to prevent food spoilage and food poisoning, and apply these practices in the preparation of food. They consider food preparation practices suitable for use in a small-scale food operation, such as in the home, a school setting or in a small food business. Students consider the selection and use of a range of tools and equipment suitable for use in food preparation.

Students examine the links between classification of foods and their properties, and examine changes in properties of food when different preparation and processing techniques are used. Students apply this knowledge when preparing food. They investigate quality and ethical considerations in food selection. Students use the design process to meet the requirements of design briefs to maximise the qualities of key foods.

### **Unit 2: Planning and preparation of food**

In this unit students investigate the most appropriate tools and equipment to produce optimum results, including the latest developments in food technology. Students research, analyse and apply the most suitable food preparation, processing and cooking techniques to optimise the physical, sensory and chemical properties of food.

Students work both independently and as members of a team to research and implement solutions to a design brief. They use the design process to respond to challenges of preparing food safely and hygienically for a range of contexts and consumers, taking into account nutritional considerations, social and cultural influences, and resource access and availability. Students also explore environmental considerations when planning and preparing meals.

### **Unit 3: Food preparation, processing and food controls**

In this unit students develop an understanding of food safety in Australia and the relevant national, state and local authorities and their regulations, including the Hazard Analysis and Critical Control Points (HACCP) system. They investigate the causes of food spoilage and food poisoning and apply safe work practices while preparing food.

Students demonstrate understanding of key foods, analyse the functions of the natural components of key foods and apply this information in the preparation of foods. They investigate cooking techniques and justify the use of the techniques they select when preparing key foods. Students develop an understanding of the primary and secondary processes that are applied to key foods, including food processing techniques to prevent spoilage. They also preserve food using these techniques.

Students devise a design brief from which they develop a detailed design plan. Evaluation criteria are developed from the design brief specifications. In preparing their design plan, students conduct research and incorporate their knowledge about key foods, properties of food, tools, equipment, safety and hygiene, preparation, cooking and preservation techniques. They make decisions related to the specifications of the brief. In developing the design plan, students establish an overall production timeline to complete the set of food items (the product) to meet the requirements of the brief for implementation in Unit 4.

## **Unit 4: Food product development and emerging trends**

In this unit students develop individual production plans for the proposed four to six food items and implement the design plan they established in Unit 3. In completing this task, students apply safe and hygienic work practices using a range of preparation and production processes, including some which are complex. They use appropriate tools and equipment and evaluate their planning, processes and product.

Students examine food product development, and research and analyse driving forces that have contributed to product development. They investigate issues underpinning the emerging trends in product development, including social pressures, consumer demand, technological developments, and environmental considerations. Students also investigate food packaging, packaging systems and marketing.

### **Assessment**

#### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Food and Technology students' level of achievement will be determined by School-assessed Coursework, a School-assessed Task and an end-of-year examination.

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

- Unit 3 School-assessed Coursework: 18 per cent
  - Unit 4 School-assessed Coursework: 12 per cent
  - Units 3 and 4 School-assessed Task: 40 per cent
  - End-of-year examination: 30 per cent.
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## **STUDY SUMMARY**

### **LOTE French 2005–2015**

**The accreditation period has been extended until 31 December 2015.**

#### **Rationale**

The study of a language other than English contributes to the overall education of students, most particularly in the area of communication, but also in the areas of cross-cultural understanding, intercultural learning, cognitive development, literacy and general knowledge. It provides access to the culture of communities which use the language and promotes understanding of different attitudes and values within the wider Australian community and beyond.

The ability to communicate in another language, in conjunction with other skills, may provide opportunities for employment in the fields of interpreting, social services, ethnic affairs, the tourism and hospitality industries, international relations, the arts, commerce, technology, science, education etc.

#### **Structure**

The study is made up of four units, each involving at least 50 hours of scheduled classroom instruction.

#### **Outcomes**

*Outcomes* define what students will know and be able to do as a result of undertaking the study.

*Outcomes* include a summary statement and the key knowledge and skills that underpin them.

Only the summary statements of the outcomes have been reproduced below and must be read in conjunction with the key knowledge and skills published in each language study design.

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

#### **Unit 1**

The three outcomes for Unit 1 are:

##### **Outcome 1**

On completion of this unit the student should be able to establish and maintain a spoken or written exchange related to personal areas of experience.

##### **Outcome 2**

On completion of this unit the student should be able to listen to, read and obtain information from spoken and written texts.

##### **Outcome 3**

On completion of this unit the student should be able to produce a personal response to a text focusing on real or imaginary experience.

#### **Unit 2**

The three outcomes for Unit 2 are:



### **Outcome 1**

On completion of this unit the student should be able to participate in a spoken or written exchange related to making arrangements and completing transactions.

### **Outcome 2**

On completion of this unit the student should be able to listen to, read, and extract and use information and ideas from spoken and written texts.

### **Outcome 3**

On completion of this unit the student should be able to give expression to real or imaginary experience in spoken or written form.

## **Unit 3**

The three outcomes for Unit 3 are:

### **Outcome 1**

On completion of this unit the student should be able to express ideas through the production of original texts.

### **Outcome 2**

On completion of this unit the student should be able to analyse and use information from spoken texts.

### **Outcome 3**

On completion of this unit the student should be able to exchange information, opinions and experiences.

## **Unit 4**

The two outcomes for Unit 4 are:

### **Outcome 1**

On completion of this unit the student should be able to analyse and use information from written texts.

### **Outcome 2**

On completion of this unit the student should be able to respond critically to spoken and written texts which reflect aspects of the language and culture of French-speaking communities.

## **Entry**

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

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### **Unit 1 and 2**

Individual school decision on levels of achievement.

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

School-assessed coursework and end-of-year examinations:

- Unit 3 school-assessed coursework: 25 per cent
- Unit 4 school-assessed coursework: 25 per cent
- Examinations\*: oral component 12.5 per cent  
written component 37.5 per cent

\*A single grade is awarded

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# FURNISHING PROGRAM

## STUDY SUMMARY VCE VET

### FURNISHING



The VCE VET Furnishing program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications prepare students for further training or work in a range of furnishing industries, such as cabinet making, wood machining, polishing, upholstery and picture framing.

#### What qualification/s will I receive?

The VCE VET Furnishing program enables you to receive the Certificate II in Furniture Making and a statement of attainment of selected units of competency from Certificate III in Furniture Making. These nationally recognised qualifications are issued by a Registered Training Organisation (RTO).

#### What will I learn?

The VCE VET Furnishing program provides you with the knowledge and skills to enhance your employment prospects in the furnishing industry. The qualifications within this program will develop your knowledge of timber and other furnishing materials, plus provide you with the ability to read plans while working on a range of projects. Units 1 and 2 include constructing a basic timber furnishing product, preparing surfaces for finishing and communicating in the workplace. Elective units include selecting and applying hardware, applying sheet laminates by hand and applying manufactured board conversion techniques. Units 3 and 4 offer scored assessment and incorporate units such as assembling furnishing components, using hand and power tools and constructing furniture using leg and rail method.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to five units towards your VCE: three units at Units 1 and 2 level and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Certificate II in Furnishing will assist you in pursuing a career in the furnishing industry through vocational or higher education pathways. Apprenticeships and traineeships exist in the furniture industry in areas such as cabinet making, upholstery, polishing, soft furnishing, picture framing, floor finishing and covering. As a qualified tradesperson, you can be employed in occupations such as furniture/cabinet maker, picture framer, wood machinist, kitchen fitter. Higher education pathways can lead to employment opportunities in positions such as production manager and furniture designer.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/furnishing/furnish.html](http://www.vcaa.vic.edu.au/vet/programs/furnishing/furnish.html)



# GEOGRAPHY

## STUDY SUMMARY

### GEOGRAPHY 2006–2015

The accreditation period for VCE Geography has been extended until 31 December 2015.

**Please Note:** This study summary comprises excerpts from the VCE Geography Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/geography/geogindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/geography/geogindex.aspx)) to view the full accredited Study Design and other resources.

#### **Rationale**

Geography is the study of where geographical features are located and why they are there, and what makes one place different from another, and how and why these differences matter. It looks at the interaction between human activities and natural processes, and develops understanding of the distribution of human and natural phenomena on or near the surface of the Earth from a spatial perspective.

The purpose of this study is to develop in students an ability to see meaning in the arrangement of natural and human phenomena in space; to see and understand the interrelationships between people, places and environments; and to use geographic skills and apply spatial perspectives to describe and interpret patterns on the surface of the Earth and the processes that created them.

This study investigates a diversity of themes, environments and places at different scales (local, regional, national, international and global) and in different contexts, particularly in Australia. It explores the patterns and processes of physical geography and their interaction with aspects of human geography. Geographers use a number of spatial concepts as tools to help them to investigate, interpret and explain these patterns. The spatial concepts provide a unique conceptual structure and framework of ideas for geographic investigations of phenomena.

This study design focuses on the following spatial concepts: location, scale, distance, distribution, region and movement, spatial change over time, spatial association and spatial interaction. These spatial concepts are all interconnected and to some degree overlap.

The study of Geography addresses the following questions: What is there? Where is it? Why is it there? What are the effects of it being there? How is it changing over time? Should it be like this? What will it be like in the future?

Through studying Geography, students develop knowledge and skills that enable them to understand the complex interactions of their world from a spatial perspective. They learn to participate effectively as global citizens in the sustainable use and management of the world's resources.

#### **Structure**

The study is made up of four units:

Unit 1: Natural environments

Unit 2: Human environments

Unit 3: Regional resources

Unit 4: Global perspectives

Each unit contains between two and four areas of study.

## Entry

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

### Unit 1: Natural environments

This unit investigates the geographic characteristics of natural environments and landforms and the natural processes that shape and change the Earth's surface. It investigates how the interactions between natural processes and human activities can also change natural environments.

The world's physical environments are composed of four natural systems: atmosphere, biosphere, lithosphere, hydrosphere, which are fundamental to the operation of all interactions within the environment. There are few places in the world where only natural processes operate.

Human activities interact with natural processes, each affecting the other. The nature of change caused by the interaction between natural processes and human activities varies at a range of scales, over space and over time.

Students must investigate **at least two** natural environments in each area of study. The natural environments selected for investigation may be the same in each area of study. Each environment selected for investigation must focus on physical geography at two different scales.

### Unit 2: Human environments

This unit investigates the characteristics of rural and urban environments which are developed by human activities and their interactions with natural environments. Rural and urban environments vary significantly from place to place and across a variety of scales. Rural and urban environments are significant because they are the locations where people live. Their presence creates settlements which vary in size and complexity from individual farm houses to small villages, regional towns, large metropolitan cities and mega cities.

Rural environments are those produced by human activities such as farming, forestry, tourism, mining, fishing and rural settlements. Urban environments are those produced by human activities created by housing, work and leisure pursuits. The nature of change in human environments varies across a range of scales over space and over time.

Rural and urban environments are dynamic. They can be changed in the long or short term by advances in technology, individual and organisational decisions, as well as by natural and human processes and events. Decisions that affect the management and the sustainability of rural and urban environments, and the distribution of rural and urban activities are made by governments, organisations and individuals.

Students must investigate at least two human environments in each area of study. The environments selected for investigation may be the same in each area of study, but one of the environments must be a rural environment and one an urban environment; one must be from Australia and one must be from another country. Each environment selected for investigation must focus on human geography at two different scales.

### Unit 3: Regional resources

This unit investigates the characteristics of resources and the concept of region. A resource is anything which occurs naturally or is created by humans provided that people use it to satisfy a need or want. Resources found within regions mean different things to different people over place and time. A study of resources is about the processes and relationships operating in the past, in the present, and those which will operate in the future. Regions are areas of various scales that have characteristics and features that distinguish them from other areas according to the elements used to define them. The use and management of resources is dynamic and changes spatially over time in response to the interactions between human activities, natural processes and the legislative processes that humans put into place. Social, historical, environmental, economic and political factors can be used to predict and plan for future policies and strategies to ensure the sustainability of the available resources.

Governments and other organisations often use the concept of region for planning purposes when determining allocation of resources and development of policies. Although the process of globalisation is influencing the world at a rapid rate, a regional perspective may give identity and help to make sense of such processes.

The availability and utilisation of water resources influences settlement patterns, infrastructure development and decision making in many Australian regions. Problems of supply and debates about the water resources of rural and urban communities mirror processes that are happening elsewhere on the Earth. There are competing demands for water resources within and between regions at local, national and international scales.

Students must investigate a regional resource and a local resource in Australia. The regional resource will be water in the Murray-Darling Basin region. Students will use fieldwork to investigate a local resource.

#### **Unit 4: Global perspectives**

This unit investigates the geographic characteristics of global phenomena and responses to them. Global phenomena are major natural or human events, processes or activities. Such phenomena are distributed globally and possess the capacity to affect the globe or significant parts of the globe and require more than a local or national response.

Human population studies are significant to understanding the challenges facing our globalised world. Spatial variations in the distribution, composition and growth of human populations are related to the nature of places. A global perspective is a viewpoint or policy designed to guide future action by people or organisations to address the effects of global phenomena. Phenomena such as El Nino, migration, rapid communications technology, Earthquake damage, genetically modified crops or globally changing patterns of investment and industrialisation, shared ocean and atmosphere resources, pandemics and other 'borderless' phenomena play important roles in shaping community, environments and landscape change.

Governments, organisations, groups and individuals respond to global phenomena in different ways. The type of response is affected by social, economic, historical and political considerations, resource access and distribution, and the nature and scale of the event or process. Policy developed to deal with a global phenomena and its effects results in the formation of a global perspective. This unit investigates the distribution patterns of selected global phenomena. It considers the causes, dimensions and impact of global changes and analyses policies and strategies, including those that promote sustainability, to enable a better world in the future.

Students must investigate two global phenomena in each area of study, one of which must be human population.

#### **Assessment**

##### **Satisfactory Completion**

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

##### **Levels of Achievement**

###### ***Units 1 and 2***

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

###### ***Units 3 and 4***

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

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

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

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### **HEALTH SERVICES ASSISTANCE**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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### **HEALTH AND HUMAN DEVELOPMENT**

#### **STUDY SUMMARY**

#### **HEALTH AND HUMAN DEVELOPMENT 2010–2013**

**The accreditation period for Health and Human Development ends on 31 December 2013.**

**Please Note: This study summary comprises excerpts from the VCE Health and Human Development Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/healthnhuman/healthhumindex.html>) to view the full accredited Study Design and other resources.**

#### **Rationale**

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

Health is a dynamic condition that is influenced by complex interrelationships between individuals and biomedical and behavioural factors, as well as physical and social environments. These interrelationships are reflected in a social view of health that sees health as being created in the settings where people live and work. This social view of health recognises the need for personal skills development, the importance of empowering communities to take action to promote health, the creation of social and physical environments that are supportive of health and development, an awareness of the impacts on health of public policies and the need for health services to be oriented towards health promotion and the prevention of ill health.

The VCE Health and Human Development study approaches the concept of ‘development’ as a continuum, that begins with individual human development in Units 1 and 2 and progresses towards human development at a societal level in Unit 4. In Units 1 and 2 the study of human development is about individual change, that is a continuous lifelong process that begins at conception and continues until death. Individual human developmental changes are cumulative; development that occurs in the future is dependent upon development occurring in the past. Unit 4 takes a global perspective on health and human development and uses definitions of human development that are consistent with approaches taken by both the World Health Organization (WHO) and the United Nations (UN). In Unit 4 human development is about expanding people’s choices and enhancing capabilities (the range of things people can be and do) and their freedoms; enabling people to live full, productive and creative lives; having access to knowledge, health and a decent standard of living; and participating in the life of their community and decisions affecting their lives (adapted from the United Nations Development Programme, 1990).

The study of Health and Human Development is based on the premise that health and human development needs to be promoted at an individual level, and within group and community settings at national and international levels, to maximise global development potential. This underpins the structure of the four units of Health and Human Development. The study also promotes the understanding that nutrition plays a major role in influencing both health status and individual human development.

## **Structure**

The study is made up of four units:

Unit 1: The health and development of Australia's youth

Unit 2: Individual human development and health issues

Unit 3: Australia's health

Unit 4: Global health and human development

Each unit contains between two and four areas of study.

## **Entry**

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

### **Unit 1: The health and development of Australia's youth**

In this unit students are introduced to the concepts of health and individual human development. The World Health Organization (WHO) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (World Health Organization, 1946). The WHO's definition is still widely used today, despite the identification of a number of limitations.

Individual human development is a lifelong continuous process beginning at conception and ending with death and is perceived as involving a series of orderly and predictable changes, which can be classified as physical, social, emotional and intellectual.

This unit focuses on the health and individual human development of Australia's youth. For the purposes of this study, 'youth' is defined as twelve to eighteen years of age; however, it should be acknowledged that some agencies may use differing age classifications for the stage of youth. There are many factors that influence health and individual human development of youth, including the importance of nutrition for the provision of energy and growth as well as food behaviours and their impact on youth health and individual human development.

The health status of Australia's youth is good and continues to improve as demonstrated by reductions in morbidity and mortality from communicable diseases, chronic diseases, suicide, motor vehicle accidents and other injuries. However, Australia's youth still experiences a range of health issues that impact on both their immediate and longer term health and individual human development.

In this unit students identify issues that impact on the health and individual human development of Australia's youth. Students investigate one health issue in detail and analyse personal, community and government strategies or programs that affect youth health and individual human development.

### **Unit 2: Individual human development and health issues**

Individual human development is perceived as involving a series of orderly and predictable changes, which can be classified as physical, social, emotional and intellectual. Over the lifespan, individuals accumulate life experiences that affect both their health and individual human development. This unit focuses on the lifespan stages of childhood and adulthood.

Health and development during childhood has been identified as having a significant impact on both health and development throughout the rest of the lifespan. There are many determinants of health and development of Australia's children; however, social environments such as the family and community are crucial, as children develop through their relationships with others.

The lifespan stage of adulthood represents a period of great diversity. The period of adulthood commonly spans a time frame of over sixty years. The health and individual human development of this group can vary considerably and is influenced by a range of determinants, which include biological and behavioural factors, as well as physical and social environments.

The study of health is constantly changing with many emerging issues that have impacts on Australia's health and development. An ageing population, new advances in technology, use of alternative health services, the impact of environmental change and acknowledgement of human rights and ethics are all issues that governments and communities need to consider in planning for the future of the health system.

### **Unit 3: Australia's health**

Australians generally enjoy good health and are among the healthiest people in the world when compared to other developed countries. The health status of Australians can be measured in many ways, such as consideration of burden of disease, health adjusted life expectancy, disability adjusted life years (DALYs), life expectancy, under-five mortality rate, mortality and morbidity rates, incidence and prevalence of disease. Despite Australia's good health status, there is still potential for improvements. The National Health Priority Areas (NHPAs) initiative provides a national approach that aims to improve health status in the areas that contribute most of the burden of disease in Australia. Regardless of how health is measured, health is not shared equally by all Australians. Different levels of health are experienced by different groups, which can be attributed to biological, behavioural and social determinants of health.

Funding for the Australian health system involves a combination of both government and non-government sources. The Australian Government makes a significant contribution to the health system through the funding of Medicare. Both government and non-government organisations play an important role in the implementation of a range of initiatives designed to promote health in Australia.

### **Unit 4: Global health and human development**

This unit takes a global perspective on achieving sustainable improvements in health and human development. In the context of this unit human development is about creating an environment in which people can develop to their full potential and lead productive, creative lives in accord with their needs and interests. It is about expanding people's choices and enhancing capabilities (the range of things people can be and do), having access to knowledge, health and a decent standard of living, and participating in the life of their community and decisions affecting their lives (adapted from the United Nations Development Programme, 1990). 'Sustainability refers to meeting the needs of the present without compromising the ability of future generations to meet their own needs' (United Nations, 1992).

The United Nations (UN) human development work is encapsulated in the Millennium Development Goals, where the world's countries have agreed to a set of measurable goals and targets for combating poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women. A significant focus of the Millennium Development Goals is reducing the inequalities that result in human poverty and lead to inequalities in health status and human development.

The World Health Organization (WHO) is the directing and coordinating authority for international health within the United Nations. Both the WHO and the UN have a range of strategies aimed at reducing global burdens of disease and promoting human development through the achievement of the Millennium Development Goals. The Australian Agency for International Development (AusAID) manages the Australian Government's overseas aid program. AusAID aims to reduce poverty in developing countries and improve human development, with a focus on assisting developing countries to achieve the Millennium Development Goals. Non-government organisations also play a role in promoting sustainable human development.



## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

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

## STUDY SUMMARY

### HISTORY 2005–2015

The accreditation period for VCE History has been extended until 31 December 2015.

**Please Note:** This study summary comprises excerpts from the VCE History Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/history/histstudy.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/history/histstudy.aspx)) to view the accredited Study Design and other resources.

#### Rationale

History is the practice of understanding and making meaning of the past. It is also the study of the problems of establishing and representing that meaning. It is a synthesising discipline which draws upon most elements of knowledge and human experience. Students learn about their historical past, their shared history and the people, ideas and events that have created present societies and cultures.

This study builds a conceptual and historical framework within which students can develop an understanding of the issues of their own time and place. It seeks to extend students' cultural, economic, social and political understanding while developing analytical skills and using imagination.

Historical understanding is communicated through written, oral and visual forms. The analysis of written documentary evidence such as letters, diaries, court proceedings and government records has long been the foundation of the study. Visual evidence, however, often pre-dates written material; for example, rock art, mosaics, scrolls. More recently, there have been many film and television documentaries presenting and interpreting historical events. It is therefore important in the study of history for students to develop the skills necessary to analyse visual, oral and written records.

The study of history draws links between contemporary society and its history, in terms of its social and political institutions, and language. An understanding of the link between accounts of the past, and the values and interests of the time in which the accounts were produced, is also a feature of the study of history.

VCE History is relevant to students with a wide range of expectations, including those who wish to pursue formal study at tertiary level, as well as providing valuable knowledge and skills for an understanding of the underpinnings of contemporary society.

#### Structure

The study is made up of:

Units 1: Twentieth century history 1900–1945

Units 2: Twentieth century history 1945–2000

Units 3 and 4: Revolutions

Each unit contains between two and four areas of study.

#### Entry

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

## **Unit 1: Twentieth century history 1900–1945**

The first half of the twentieth century was marked by significant change. From the late nineteenth century up to World War I there was still a sense of a certain and natural order of society. This order was challenged and overturned. Old certainties were replaced by new uncertainties as new movements and organisations emerged in response to economic, social and political crises and conflicts. Revolution, civil war and international conflict overshadowed the first fifty years of the twentieth century. Many of the recurring conflicts of the twentieth century had their origins in the post-World War I political treaties and agreements. These saw the creation of new states and new borders within Europe, Asia and Africa. This was particularly true for the Middle East.

Patterns of daily life in the twentieth century were to change as a result of political and social developments. Advances in science and technology also began to transform the world of work and the home. Traditional forms of cultural expression such as art, literature, music and dance, as well as the new mediums of film and radio, were to both reflect and explore these changes. This unit considers the way that societies responded to these changes and how they affected people's lives.

This unit should be based on one or more historical contexts from within the specified time period 1900 to 1945; for example, Imperial Russia and the Soviet Union; Palestine and the break up of the Ottoman Empire; the collapse of the Hapsberg Empire; Japan, Germany, America, Europe and World War II; French Indochina; the Middle East and China.

## **Unit 2: Twentieth century history 1945–2000**

In 1945 the forces of Japanese imperialism and German fascism were defeated. The United States of America and the USSR emerged from the destruction of World War II as the new world superpowers. The relationship between these allies soon dissolved into acrimony and suspicion and for the next forty years a Cold War was waged between these opposing ideologies. In 1945 the atomic bombs were dropped on the Japanese cities of Hiroshima and Nagasaki. The debate over the benefits and dangers of nuclear technology was to re-occur throughout the second half of the twentieth century. In 1945 the international community was loath to experience another devastating world war. This year was to see the first meetings of the newly formed United Nations (UN), which aimed, among other things, to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The member nations of the UN grew as the former colonies in Africa, the Middle East, the Pacific and Asia gained independence through both military and diplomatic means, and new countries such as Israel, Pakistan and Bangladesh were created.

Despite advances in medicine, technology and a commitment to the diplomatic process, and internationalist efforts to improve the quality of life for humankind, wars and civil unrest continued to take a huge toll on human life across the globe, as did illness, hunger and disease. Exploitation of the environment to unsustainable levels was identified as an additional threat to the long-term health of the planet. Movements for social, political, and economic change saw the traditional power structures in both Western, communist and developing countries challenged. The individual voice of dissent could now reach across the globe through advances in communication such as television, satellite, and multimedia technology. Increasingly, art, sport, entertainment and consumerism, as well as social action, have become a global experience.

This unit considers some of the major themes and principal events of post-World War II history, and the ways in which individuals and communities responded to the political, economic, social and technological developments in domestic, regional and international settings.

This unit should be based on one or more contexts from within the specified time period 1945 to 2000; for example, the Cold War, Middle East conflicts, peace and disarmament movements, Asian, African or Middle East nationalism, globalisation.

## Units 3 and 4: Revolutions

Revolutions are the great disjuncture of modern times and mark deliberate attempts at new directions. They share the common aim of breaking with the past by destroying the regimes and societies that engender them and embarking on a program of political and social transformation. As processes of dramatically accelerated social change, revolutions have a profound impact on the country in which they occur, as well as important international repercussions.

Because revolutions involve destruction and construction, dispossession and liberation, they polarise society and unleash civil war and counter-revolution, making the survival and consolidation of the revolution the principal concern of the revolutionary state. In defence of the revolution, under attack from within and without, revolutionary governments often deploy armed force and institute policies of terror and repression. The process of revolution concludes when a point of stability has been reached and a viable revolutionary settlement made.

### Unit 3 and 4: Revolutions

Revolutions in history have been reconsidered and debated by historians. The study of a revolution should consider differing perspectives and the reasons why different groups have made different judgments of the history of the revolution.

In developing a course, teachers should select two of the following revolutions; one for Unit 3 and one for Unit 4:

- The American Revolution
- The French Revolution
- The Russian Revolution
- The Chinese Revolution

For the *two* selected revolutions, *both* areas of study must be explored.

The periods for each revolution are indicated in the description of the areas of study.

## Assessment

### Satisfactory Completion

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

### Levels of Achievement

#### Units 1 and 2

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

#### Units 3 and 4

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

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

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

# HOSPITALITY

## STUDY SUMMARY VCE VET

### HOSPITALITY



The VCE VET Hospitality program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with the knowledge and skills to prepare them for a diverse range of occupations in the hospitality industry including commercial cookery, catering and food and beverage service.

#### What qualification/s will I receive?

The VCE VET Hospitality program/s enables you to receive one or more of the following nationally recognised qualifications:

- Program 1: Certificate II in Hospitality and selected units of competency from Certificate III in Hospitality
- Program 2: Certificate II in Hospitality (Kitchen Operations).

These qualifications are drawn from the SIT07 Tourism, Hospitality and Events Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Hospitality and selected units of competency from Certificate III in Hospitality*

**VCE credit:** you will be eligible for up to five units towards your VCE: three units at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL credit:** you will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Hospitality provides you with the necessary training and skills for the achievement of competency in food and beverage service. Depending on the electives chosen, Units 1 and 2 include developing and updating hospitality industry knowledge, serving food and beverage to customers, organising and preparing food, providing visitor information and workplace hygiene. Units 3 and 4 offers scored assessment and incorporates units such as providing food and beverage service, preparing and serving non-alcoholic beverages, responsible service of alcohol and preparing and serving espresso coffee.

**Career opportunities:** Completing Program 1 of VCE VET Hospitality will assist you in pursuing a career in the hospitality industry through vocational and higher education pathways. Employment opportunities exist in a variety of roles such as a food and beverage attendant, bar/bottle shop attendant, catering assistant, waiter or barista. With additional training and experience, future employment opportunities may include restaurant manager, sommelier and maître d'. Work would be undertaken in various hospitality settings in a front of house role, including restaurants, hotels, motels, catering operations, clubs, pubs, cafes and coffee shops.



# INFORMATION TECHNOLOGY

## STUDY SUMMARY

### VCE INFORMATION TECHNOLOGY 2011–2015

The accreditation period for VCE Information Technology has been extended until 31 December 2015.

**Please Note:** This study summary includes excerpts from the VCE Information Technology Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/infotech/infotechindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/infotech/infotechindex.aspx)) to view the full accredited Study Design and other resources.

#### Rationale

VCE Information Technology focuses on the processing of data and the management of information and information systems.

The rapid pace of development in information and communications technology (ICT) is having a major influence on many aspects of society. Not only does ICT provide the capacity to change how tasks and activities are undertaken, but it also creates new opportunities in work, education, entertainment and society.

While it is important that students extend their use of ICT as a learning and personal tool, the study of VCE Information Technology encompasses information systems and how people interact with information technology to create structured information and to connect with others to exchange information. It encompasses the theoretical foundations of computation and techniques for writing programs and developing solutions. It also focuses on how the needs of individuals, organisations, communities and society are met through the combination of ICT and meaningful information.

VCE Information Technology equips students with appropriate knowledge and skills to use ICT responsibly and to make informed personal and workplace choices about developments in this exciting field. Students are encouraged to orient themselves towards the future, with an awareness of the technical and societal implications of ICT.

VCE Information Technology provides pathways to further studies in IT and to careers in ICT-based areas. It also prepares students for programs that require an IT-related subject or for a range of careers that require efficient and effective use of ICT.

#### Structure

The study is made up of six units:

Unit 1: IT in action

Unit 2: IT pathways

Units 3 and 4: IT applications

Units 3 and 4: Software development

Each unit contains between two and four areas of study.

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

#### Entry

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

## **Unit 1: IT in action**

This unit focuses on how individuals and organisations use, and can be affected by, information and communications technology (ICT) in their daily lives. In Areas of Study 1 and 3, students acquire and apply a range of knowledge and skills to manipulate different data types such as numeric, text, sound and images (still and moving) to create solutions that can be used to persuade, educate, inform and entertain. In Area of Study 3, students also explore how their lives are affected by ICT, and consider strategies for managing how ICT is applied. In Area of Study 2, students examine how networked information systems allow data to be exchanged locally and within a global environment, and explore how mobile devices, such as phones, are used within these networks.

When creating solutions, students need an understanding of the problem-solving methodology, as detailed in the accredited Study Design. In this unit the emphasis is on the problem-solving stages of design and development.

## **Unit 2: IT pathways**

This unit focuses on how individuals and organisations use ICT to meet a range of purposes. Students apply a range of knowledge and skills to create solutions, including those that have been produced using a programming or scripting language, to meet users' needs. In this unit, students apply all stages of the problem-solving methodology when creating solutions. Details of this methodology are contained in the Study Design.

In Area of Study 1 students analyse data from large repositories and manipulate selected data to create visualisations. In Area of Study 2 students develop skills in using programming or scripting language software and they investigate careers that involve the use of these skills. Working in teams is an important and effective strategy for solving problems, and this strategy is applied in Area of Study 3 when students solve problems for clients in the community.

## **IT applications**

### **Unit 3: IT applications**

The focus of Unit 3 is the World Wide Web and how it supports the information needs of individuals, communities and organisations. In Area of Study 1, students investigate the design and technical underpinnings of different types of websites that support the varying needs of online communities. Students use web authoring software to create prototype websites for particular online communities, taking into account both technical and non-technical constraints.

Area of Study 2 focuses on the use of a relational database management system (RDBMS). Students examine techniques used by organisations to acquire data via websites and consider the relationship between how the data is acquired and the structure of an RDBMS. At the practical level, students acquire and apply knowledge and skills in the use of an RDBMS. In Unit 4 when solving information problems students can either use spreadsheet software or continue to use an RDBMS.

Students apply the analysis, design and development stages of the problem-solving methodology when creating solutions. Details of this methodology are contained in the Study Design.

### **Unit 4: IT applications**

In this unit students focus on how ICT is used by organisations to solve ongoing information problems and on the strategies used to protect the integrity and security of data and information. In Area of Study 1 either a relational database management system (RDBMS) or spreadsheet software is selected and used to create solutions to information problems. In addition, students use web authoring or multimedia authoring software to produce onscreen user documentation. When creating solutions to ongoing information problems, students apply all stages of the problem-solving methodology. Details of this methodology are contained in the Study Design.

In Area of Study 2, students explore how organisations manage the storage, communication and disposal of data and information in order to minimise threats to the integrity and security of data and information, and to optimise efficient information handling.

## **Software development**

### **Unit 3: Software development**

Unit 3 focuses on programming as a strategy for solving problems for specific users in a networked environment. Students develop knowledge and skills in the use of a programming language. The programming language selected will be studied for both Units 3 and 4. When programming in Unit 3, students are expected to have an overview of the problem-solving methodology and a detailed understanding of the stages of analysis, design and development. Details of this methodology are contained in the Study Design.

Area of Study 1 focuses on the analysis stage of the problem-solving methodology, which involves students developing and applying knowledge and skills in determining the requirements of solutions, identifying relevant factors that should be taken into account when designing the solutions, and in scoping the solutions. In Area of Study 2 students engage in designing the detailed specifications of how solutions will be developed and undertake the development stage by using the selected programming language to create planned solutions.

### **Unit 4: Software development**

This unit focuses on how the information needs of individuals, organisations and society are and can be met through the creation of purpose-designed solutions in a networked environment. Students continue to study the programming language selected in Unit 3.

In this unit students are required to engage in the design, development and evaluation stages of the problem-solving methodology. Details of this methodology are contained in the Study Design.

Area of Study 1 focuses on the design and development stages of the problem-solving methodology when solving problems suitable for use with mobile devices. Area of Study 2 focuses on the final stage of the methodology, evaluation.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

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



# INTERACTIVE DIGITAL MEDIA

## STUDY SUMMARY VCE VET

### INTERACTIVE DIGITAL MEDIA



The VCE VET Interactive Digital Media program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with a broad range of knowledge and skills to pursue a career or further training in the screen and media industry in areas such as film and television production, animation, radio broadcasting and photography.

#### What qualification/s will I receive?

The VCE VET Interactive Digital Media program enables you to receive one or more of the following nationally recognised qualifications:

- Program 1: Certificate II in Creative Industries (Media)
- Program 2: Certificate III in Media.

These qualifications are drawn from the CUF07 Screen and Media Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Creative Industries (Media)*

**VCE credit:** you will be eligible for up to three units at Units 1 and 2 level.

**VCAL credit:** you will be eligible for up to three credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Creative Industries (Media) provides you with the knowledge and skills to enhance your employment prospects in the media industry. Core units of competency include participating in work, health and safety processes, developing and applying creative arts industry knowledge, working with others and applying critical thinking techniques. To complete the certificate, there are a broad range of electives available in areas such as interactive content, radio presentation, multimedia, basic vision and sound editing, props and set construction.

**Career opportunities:** Completing the Certificate II in Creative Industries (Media) will assist you in pursuing a career in the screen and media industry through vocational or higher education pathways. Employment opportunities exist in a number of roles such as community radio or television production assistant, editing assistant or interactive media author assistant.

##### *Program 2: Certificate III in Media*

**VCE credit:** you will be eligible for up to four units towards your VCE: two at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL credit:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Similarly to Certificate II in Creative Industries (Media), Units 1 and 2 of the Certificate III in Media include participating in work health and safety processes, developing and applying creative arts industry knowledge, working with others and applying critical thinking techniques. Units 3 and 4 offers scored assessment and incorporates units such as 2D digital animations, writing content for a range of media, authoring interactive sequences and creating visual design components.

**Career opportunities:** Completing the Certificate III in Media will assist you in pursuing a career in the screen and media industry through vocational or higher education pathways. With additional training and experience potential employment opportunities can include, camera/lighting assistant, radio program maker/presenter, editing assistant, interactive media author, production assistant, web designer, games designer, animator or special effects producer.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/interactivedigital/interactivedigital.html](http://www.vcaa.vic.edu.au/vet/programs/interactivedigital/interactivedigital.html)

# INTERGRATED TECHNOLOGIES

## STUDY SUMMARY VCE VET

### INTEGRATED TECHNOLOGIES



Certificate II in Integrated Technologies is state accredited curriculum which offers students prevocational training in the electrotechnology industry. The VCE VET Integrated Technologies program provides students with the knowledge and skills required to further their studies or career in related industries, which encompass units in electrotechnology, telecommunications, information technology and security systems.

#### What qualification will I receive?

The VCE VET Integrated Technologies program enables you to receive the 22071VIC Certificate II in Integrated Technologies. The qualification is issued by a Registered Training Organisation (RTO).

#### What will I learn?

VCE VET Integrated Technologies will provide you with the skills and knowledge to enhance your employment prospects through an apprenticeship or traineeship in a range of industry areas including: automotive, electrical, electronics, information technology and telecommunications. Units 1 and 2 of the program include compulsory units such as carrying out routine work activities as well as undertaking a shared technology project. Elective units focus on computer systems, wireless communications, energy generation, robotics and embedded controllers, fibre optics, telecommunications and security systems. Units 3 and 4 offer scored assessment and the opportunity for you to apply your skills and knowledge to a range of electrotechnology work activities. Further units are also included and are selected from the elective stream of your choice.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** You will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** You will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Certificate II in Integrated Technologies will assist you in pursuing a career in the electrotechnology industry through vocational or higher education pathways. Skill areas within the industry include the use and management of computer networks, manipulation of wireless communications, ability to analyse the amounts of data collected by smart devices and closer involvement in electricity generation. With additional training and experience, future employment opportunities may include electronics technician, computer assembler, data communications technician. Higher education pathways can lead to employment opportunities such as an Electrical Engineer, Robotics Engineer, Computer Systems Engineer.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/integratedtech/integratedtech.html](http://www.vcaa.vic.edu.au/vet/programs/integratedtech/integratedtech.html)



## JAPANESE SECOND LANGUAGE

### STUDY SUMMARY

#### LOTE Japanese Second Language 2005–2015

The accreditation period has been extended until 31 December 2015.

#### **Rationale**

The study of a language other than English contributes to the overall education of students, most particularly in the area of communication, but also in the areas of cross-cultural understanding, intercultural learning, cognitive development, literacy and general knowledge. It provides access to the culture of communities which use the language and promotes understanding of different attitudes and values within the wider Australian community and beyond.

The ability to communicate in another language, in conjunction with other skills, may provide opportunities for employment in the fields of interpreting, social services, ethnic affairs, the tourism and hospitality industries, international relations, the arts, commerce, technology, science, education etc.

#### **Structure**

The study is made up of four units, each involving at least 50 hours of scheduled classroom instruction.

#### **Outcomes**

*Outcomes* define what students will know and be able to do as a result of undertaking the study.

*Outcomes* include a summary statement and the key knowledge and skills that underpin them.

Only the summary statements of the outcomes have been reproduced below and must be read in conjunction with the key knowledge and skills published in each language study design.

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

#### **Unit 1**

The three outcomes for Unit 1 are:

##### **Outcome 1**

On completion of this unit the student should be able to establish and maintain a spoken or written exchange related to personal areas of experience.

##### **Outcome 2**

On completion of this unit the student should be able to listen to, read and obtain information from spoken and written texts.

##### **Outcome 3**

On completion of this unit the student should be able to produce a personal response to a text focusing on real or imaginary experience.

#### **Unit 2**

The three outcomes for Unit 2 are:

##### **Outcome 1**

On completion of this unit the student should be able to participate in a spoken or written exchange related to making arrangements and completing transactions.

## **Outcome 2**

On completion of this unit the student should be able to listen to, read, and extract and use information and ideas from spoken and written texts.

## **Outcome 3**

On completion of this unit the student should be able to give expression to real or imaginary experience in spoken or written form.

## **Unit 3**

The three outcomes for Unit 3 are:

### **Outcome 1**

On completion of this unit the student should be able to express ideas through the production of original texts.

### **Outcome 2**

On completion of this unit the student should be able to analyse and use information from spoken texts.

### **Outcome 3**

On completion of this unit the student should be able to exchange information, opinions and experiences.

## **Unit 4**

The two outcomes for Unit 4 are:

### **Outcome 1**

On completion of this unit the student should be able to analyse and use information from written texts.

### **Outcome 2**

On completion of this unit the student should be able to respond critically to spoken and written texts which reflect aspects of the language and culture of Japanese-speaking communities.

## **Entry**

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

Japanese is offered at more than one level in the VCE. Entry into these levels is governed by eligibility criteria which are published in the VCAA website and in the current VCE and VCAL Administrative Handbook.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### **Unit 1 and 2**

Individual school decision on levels of achievement.

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

School-assessed coursework and end-of-year examinations:

- Unit 3 school-assessed coursework: 25 per cent
- Unit 4 school-assessed coursework: 25 per cent
- Examinations\*: oral component 12.5 per cent  
written component 37.5 per cent

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\*A single grade is awarded

# LABORATORY SKILLS

## STUDY SUMMARY VCE VET

### LABORATORY SKILLS



The VCE VET Laboratory Skills program is drawn from a national training package and offers a portable qualification which is recognised throughout Australia. The qualification provides students with a pathway to work in a wide range of enterprises and industry sectors such as process manufacturing, food and beverage processing, biotechnology, biomedical research, pathology testing, mining, chemical, forensic, environmental analysis and education.

#### What qualification will I receive?

The VCE VET Laboratory Skills program enables you to receive the Certificate III in Laboratory Skills. This nationally recognised qualification is drawn from the MSL09 Laboratory Skills Training Package and is issued by a Registered Training Organisation (RTO).

#### What will I learn?

Certificate III in Laboratory Skills will provide you with the necessary knowledge and skills associated with the day-to-day operation of a laboratory and associated technical tasks such as sampling and testing. Units 1 and 2 of the program include recording and presenting data, planning and conducting laboratory/field work, maintaining the laboratory fit for purpose, with electives such as performing basic tests and assisting with fieldwork included. Units 3 and 4 offer scored assessment and incorporate units such as performing aseptic techniques, contributing to the achievement of quality objectives, preparing working solutions and performing microscopic examinations.

#### What credit will I receive towards my VCE or VCAL?

**VCE:** you will be eligible for up to four units towards your VCE: two units at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

#### What career and/or employment opportunities will I have?

Completing the Certificate III in Laboratory Skills will assist you in pursuing a career in a range of enterprises and industry sectors in areas such as biological testing, biotechnology, chemical testing, construction material testing, environmental monitoring, food testing, pathology testing and scientific glassblowing. Employment opportunities exist in positions such as an environmental field assistant or laboratory assistant. Certificate III in Laboratory Skills also provides opportunities for para professional careers through vocational and higher education pathways which can lead to employment opportunities in positions such as Laboratory Technician, Health Care Scientist or Pathology Technical Officer.

#### Further information:

[www.vcaa.vic.edu.au/vet/programs/laboratory/laboratory.html](http://www.vcaa.vic.edu.au/vet/programs/laboratory/laboratory.html)

## LANGUAGES OTHER THAN ENGLISH (LOTE)

### **Languages Other Than English**

This study is available in thirty-one languages. Students interested in studying a Language Other Than English that is not on offer on-campus at Frankston High School should enquire with their Course Counsellor for details as to how to enrol in another language study. This may be via Distance Education or the Victorian Language School.

Languages available are –

Albanian	Arabic
Armenian	Auslan
Bengali	Bosnian
Chinese First Language	Chinese Second Language and Chinese Second Language Advanced
Classical Greek	Classical Hebrew
Croatian	Czech
Dutch	Filipino
French	German
Greek	Hebrew
Hindi	Hungarian
Indigenous Languages of Victoria	Indonesian First Language
Indonesian Second Language	Italian
Japanese First Language	Japanese Second Language
Khmer	Korean First Language
Korean Second Language	Latvian
Latin	Lithuanian

Macedonian	Maltese
Persian	Polish
Portuguese	Punjabi
Romanian	Russian
Serbian	Sinhala
Slovenian	Spanish
Swedish	Tamil
Turkish	Ukrainian
Vietnamese	Yiddish

## LEGAL STUDIES

### STUDY SUMMARY

#### LEGAL STUDIES 2011–2015

**Please Note:** This study summary includes excerpts from the VCE Legal Studies Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/legalstudies/legalindex.html>) to view the full accredited Study Design and other resources.

#### **Rationale**

VCE Legal Studies investigates the ways in which the law and the legal system relate to and serve individuals and the community. This knowledge is central to understanding the workings of contemporary Australian society.

Legal Studies examines the processes of law-making, dispute resolution and the administration of justice in Australia. Students develop an understanding of the impact of the legal system on the lives of citizens, and the implications of legal decisions and outcomes on Australian society. The study provides students with an appreciation of how individuals can be involved in decision-making within the legal system, encouraging civic engagement and helping them to become more informed and active citizens.

Students develop an understanding of the complexity of the law and the legal system and the challenges faced by our law-makers and dispute resolution bodies. They investigate the workings of the Australian legal system and undertake comparisons with international structures and procedures. Students are encouraged to question these systems and develop informed judgments about their effectiveness, as well as consider reforms to the law and the legal system.



Legal Studies also focuses on the development of skills. Students develop an ability to identify, collect and process information from a range of sources and engage in its interpretation and analysis. Skills for independent inquiry, critical thinking and legal reasoning to solve legal problems are also fostered. Students are required to apply legal reasoning and decision-making to contemporary cases and issues. They engage in analysis and evaluation of existing legal processes and form opinions about the operation of the legal system.

## **Structure**

The study is made up of four units:

Unit 1: Criminal law in action

Unit 2: Issues in civil law

Unit 3: Law-making

Unit 4: Resolution and justice

Each unit contains between two and four Areas of Study.

## **Entry**

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

### **Unit 1: Criminal law in action**

The law influences all aspects of society – at home, at work and in the wider community. Laws are used by society to preserve social cohesion, and to ensure the protection of people from harm and from the infringement of their rights. These laws can be grouped according to their source and whether they are criminal or civil in nature. Following an overview of the law in general, this unit focuses on criminal law.

Students examine the need for laws in society. They investigate the key features of criminal law, how it is enforced and adjudicated and possible outcomes and impacts of crime. Through a consideration of contemporary cases and issues, students learn about different types of crimes and explore rights and responsibilities under criminal law. Students also consider the role of parliament and subordinate authorities in law-making, as well as the impact of the Victorian Charter of Rights and Responsibilities on law enforcement and adjudication in Victoria.

Students investigate the processes and procedures followed by courts in hearing and resolving criminal cases. They explore the main features and operations of criminal courts and consider the effectiveness of the criminal justice system in achieving justice.

### **Unit 2: Issues in civil law**

The civil law regulates the rights and responsibilities that exist between individuals, groups and organisations. If legal rights have been infringed, the aggrieved party may pursue legal action through the court system, through a tribunal, or by using one of the methods of dispute resolution.

Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil law in society and how it affects them as individuals.

The unit also focuses on the resolution of civil disputes through judicial determination and alternative methods in courts, tribunals and independent bodies. Students examine these methods of dispute resolution and evaluate their effectiveness.

Individuals can influence a change in the law by taking a case to court. Students focus on cases that have had a broader impact on the legal system and on the rights of individuals. Students develop an appreciation of the role played by such cases and undertake an analysis of relevant legal issues.



### **Unit 3: Law-making**

In this unit students develop an understanding of the institutions that determine our laws, and their law-making powers and processes. They undertake an informed evaluation of the effectiveness of law-making bodies and examine the need for the law to keep up to date with changes in society.

Students develop an appreciation of the complex nature of law-making by investigating the key features and operation of parliament, and influences on law-making, with a focus on the role of the individual.

Central to the investigation of law-making is the role played by the Commonwealth Constitution. Students develop an understanding of the importance of the Constitution in their lives and on society as a whole, and undertake a comparative analysis with another country. They learn of the importance of the role played by the High Court of Australia in interpreting and enforcing the Constitution, and ensuring that parliaments do not act outside their areas of power nor infringe protected rights.

Students investigate the nature and importance of courts as law-makers and undertake an evaluation of their effectiveness as law-making bodies. They also investigate the relationships that exist between parliaments and courts.

Throughout this unit, students examine relevant cases to support their learning and apply legal principles to these cases.

### **Unit 4: Resolution and justice**

The legal system provides mechanisms by which legal disputes of both a criminal and a civil nature can be resolved in a fair and just manner. Dispute resolution bodies such as courts and tribunals employ a range of means and processes that enables the resolution of legal disputes.

Students examine the institutions that adjudicate criminal cases and civil disputes. They also investigate methods of dispute resolution that can be used as an alternative to civil litigation. Students investigate the processes and procedures followed in courtrooms and develop an understanding of the adversary system of trial and the jury system, as well as pre-trial and post-trial procedures that operate in the Victorian legal system. Using the elements of an effective legal system, students consider the extent to which court processes and procedures contribute to the effective operation of the legal system. They also consider reforms or changes that could further improve its effective operation. Throughout this unit, students examine current or recent cases to support their learning, and apply legal principles to these illustrative cases.

### **Assessment**

#### **Satisfactory Completion**

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

#### **Levels of Achievement**

##### ***Units 1 and 2***

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

##### ***Units 3 and 4***

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

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

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

# LITERATURE

## STUDY SUMMARY

### LITERATURE 2006–2014

The accreditation period for Literature has been extended until 31 December 2014.

**Please Note:** This study summary comprises excerpts from the VCE Literature Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/literature/literatureindex.html>) to view the full accredited Study Design and other resources.

#### Rationale

The study of literature focuses on the enjoyment and appreciation of reading that arises from discussion, debate and the challenge of exploring the meanings of literary texts. Students reflect on their interpretations and those of others.

The study is based on the premise that meaning is derived from the relationship between the text, the context in which it was produced and the experience of life and literature the reader brings to the texts. Accordingly, the study encompasses texts that vary in form and range from past to contemporary social and cultural contexts. Students learn to understand that texts are constructions, to consider the complexity of language and to recognise the influence of contexts and form. The study of literature encourages independent and critical thinking in students' analytical and creative responses to texts, which will assist students in the workforce and in future academic study.

#### Structure

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

#### Entry

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

#### Unit 1

This unit focuses on the ways literary texts represent human experience and the reading practices students develop to deepen their understanding of a text. Students respond to a range of texts personally, critically and creatively. This variety of approaches to reading invites questions about the ideas and concerns of the text. While the emphasis is on students' close engagement with language to explore texts, students also inform their understanding with knowledge of the conventions associated with different forms of text, for example poetry, prose, drama and/or non-print texts.

#### Unit 2

The focus of this unit is on students' critical and creative responses to texts. Students deepen their understanding of their responses to aspects of texts such as the style of narrative, the characters, the language and structure of the text. Students extend their exploration of the ideas and concerns of the text. They understand the ways their own culture and the cultures represented in the text can influence their interpretations and shape different meanings. Students make comparisons between texts and identify some of the relationships that exist through features such as the language, characterisation and ideas.

### **Unit 3**

This unit focuses on the ways writers construct their work and how meaning is created for and by the reader. Students consider how the form of text (such as poetry, prose, drama, non-print or combinations of these) affects meaning and generates different expectations in readers, the ways texts represent views and values and comment on human experience, and the social, historical and cultural contexts of literary works.

### **Unit 4**

This unit focuses on students' creative and critical responses to texts. Students consider the context of their responses to texts as well as the concerns, the style of the language and the point of view in their re-created or adapted work.

In their responses, students develop an interpretation of a text and learn to synthesise the insights gained by their engagement with various aspects of a text into a cogent, substantiated response.

### **Assessment**

#### **Satisfactory Completion**

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

#### **Levels of Achievement**

##### ***Units 1 and 2***

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

##### ***Units 3 and 4***

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

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

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

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**MARINE AUTOMOTIVE**  
**Please see Mrs Janene Strange VET Co-ordinator for more details**

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# **MATHEMATICS**

## **STUDY SUMMARY**

### **MATHEMATICS 2006–2015**

The accreditation period for VCE Mathematics has been extended until 31 December 2015.

**Please Note:** This study summary comprises excerpts from the VCE Mathematics Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/mathematics/foundation/foundmathindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/mathematics/foundation/foundmathindex.aspx)) to view the full accredited Study Design and other resources.

### **Rationale**

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

This study is designed to provide access to worthwhile and challenging mathematical learning in a way which takes into account the needs and aspirations of a wide range of students. It is also designed to promote students' awareness of the importance of mathematics in everyday life in a technological society, and confidence in making effective use of mathematical ideas, techniques and processes.

### **Structure**

The study is made up of 12 units:

Units 1 and 2: Foundation Mathematics

General Mathematics

Mathematical Methods Computer Algebra System (CAS)

Units 3 and 4: Further Mathematics

Mathematical Methods (CAS)

Specialist Mathematics

Each unit contains between two and four areas of study.

### **Entry**

There are no prerequisites for entry to Foundation Mathematics Units 1 and 2, General Mathematics Units 1 and 2 or Mathematical Methods (CAS) Units 1 and 2. However, students attempting Mathematical Methods (CAS) are expected to have a sound background in number, algebra, function, and probability. Some additional preparatory work will be advisable for any student who is undertaking Mathematical Methods (CAS) Unit 2 without completing Mathematical Methods (CAS) Unit 1.

Students must undertake Unit 3 of a study before entering Unit 4 of that study.

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

Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education.

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

Foundation Mathematics provides for the continuing mathematical development of students entering VCE, who need mathematical skills to support their other VCE subjects, including VET studies, and who do not intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. Provision of this course is intended to complement General Mathematics and Mathematical Methods (CAS). It is specifically designed for those students who are not provided for in these two courses. Students completing this course would need to undertake further mathematical study in order to attempt Further Mathematics Units 3 and 4.

In Foundation Mathematics there is a strong emphasis on using mathematics in practical contexts relating to everyday life, recreation, work and study. Students are encouraged to use appropriate technology in all areas of their study. These units will be especially useful for students undertaking VET studies.

The areas of study for Units 1 and 2 of Foundation Mathematics are ‘Space, shape and design’, ‘Patterns and number’, ‘Handling data’ and ‘Measurement’.

At the end of Unit 1, students will be expected to have covered material equivalent to two areas of study. All areas of study will be completed over the two units. Unit 2 can be used to complement Unit 1 in development of the course material. Some courses may be based on the completion of an area of study in its entirety before proceeding to other areas of study. Other courses may consist of an ongoing treatment of all areas of study throughout Units 1 and 2. It is likely that a contextual approach will lead to the development of implementations that draw on material from all areas of study in each semester.

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

General Mathematics provides courses of study for a broad range of students and may be implemented in a number of ways. Some students will not study Mathematics beyond Units 1 and 2, while others will intend to study Further Mathematics Units 3 and 4. Others will also be studying Mathematics Methods (CAS) Units 1 and 2 and intend to study Mathematical Methods (CAS) Units 3 and 4 and, in some cases, Specialist Mathematics Units 3 and 4 as well. The areas of study for Unit 1 and Unit 2 of General Mathematics are ‘Arithmetic’, ‘Data analysis and simulation’, ‘Algebra’, ‘Graphs of linear and non-linear relations’, ‘Decision and business mathematics’ and ‘Geometry and trigonometry’.

Units 1 and 2 are to be constructed to suit the range of students entering the study by selecting material from the six areas of study using the following rules:

- for each unit, material covers four or more topics selected from at least three different areas of study;
- courses intended to provide preparation for study at the Units 3 and 4 level should include selection of material from areas of study which provide a suitable background for these studies;
- selected material from an area of study provide a clear progression in key knowledge and key skills from Unit 1 to Unit 2.

The appropriate use of technology to support and develop the teaching and learning of mathematics is to be incorporated throughout the course. This will include the use of some of the following technologies for various areas of study or topics: graphics calculators, spreadsheets, graphing packages, dynamic geometry systems, statistical analysis systems, and computer algebra systems.

## Units 1 and 2: Mathematical Methods (CAS)

### Unit 1

Mathematical Methods (CAS) Units 1 and 2 are designed as preparation for Mathematical Methods (CAS) Units 3 and 4. The areas of study for Unit 1 are ‘Functions and graphs’, ‘Algebra’, ‘Rates of change and calculus’ and ‘Probability’. At the end of Unit 1, students will be expected to have covered the material outlined in each area of study given below, with the exception of ‘Algebra’ which should be seen as extending across Units 1 and 2. This material should be presented so that there is a balanced and progressive development of skills and knowledge from each of the four areas of study with connections among and across the areas of study being developed consistently throughout both Units 1 and 2.

Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should be familiar with relevant mental and by hand approaches in simple cases.

The appropriate use of computer algebra system (CAS) technology to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the unit. Other technologies such as spreadsheets, dynamic geometry or statistical analysis software may also be used, as appropriate, for various topics from within the areas of study for the course.

Familiarity with determining the equation of a straight line from combinations of sufficient information about points on the line or the gradient of the line and familiarity with pythagoras theorem and its application to finding the distance between two points is assumed. Students should also be familiar with quadratic and exponential functions, algebra and graphs, and basic concepts of probability.

### Unit 2

The areas of study for Unit 2 are ‘Functions and graphs’, ‘Algebra’, ‘Rates of change and calculus’, and ‘Probability’. At the end of Unit 2, students will be expected to have covered the material outlined in each area of study. Material from the ‘Functions and graphs’, ‘Algebra’, ‘Rates of change and calculus’, and ‘Probability’ areas of study should be organised so that there is a clear progression of skills and knowledge from Unit 1 to Unit 2 in each area of study.

Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should be familiar with relevant mental and by hand approaches in simple cases.

The appropriate use of computer algebra system (CAS) technology to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the unit. Other technologies such as spreadsheets, dynamic geometry or statistical analysis software may also be used, as appropriate, for various topics from within the areas of study for the course.

## Units 3 and 4: Further Mathematics

Further Mathematics consists of a compulsory core area of study ‘Data analysis’ and then a selection of three from six modules in the ‘Applications’ area of study. Unit 3 comprises the ‘Data analysis’ area of study which incorporates a statistical application task, and one of the selected modules from the ‘Applications’ area of study. Unit 4 comprises the two other selected modules from the ‘Applications’ area of study.

Assumed knowledge and skills for the ‘Data analysis’ area of study are contained in the topics: Univariate data, Bivariate data, Linear graphs and modelling, and Linear relations and equations from General Mathematics Units 1 and 2.

The appropriate use of technology to support and develop the teaching and learning of mathematics is to be incorporated throughout the units. This will include the use of some of the following technologies for various areas of study or topics: graphics calculators, spreadsheets, graphing

packages, statistical analysis systems, dynamic geometry systems, and computer algebra systems. In particular, students are encouraged to use graphics or CAS calculators, computer algebra systems, spreadsheets or statistical software in ‘Data analysis’, dynamic geometry systems in ‘Geometry and trigonometry’ and graphics calculators, graphing packages or computer algebra systems in the remaining areas of study, both in the learning of new material and the application of this material in a variety of different contexts.

### **Units 3 and 4: Mathematical Methods (CAS)**

Mathematical Methods (CAS) Units 3 and 4 consists of the following areas of study: ‘Functions and graphs’, ‘Calculus’, ‘Algebra’ and ‘Probability’, which must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. Assumed knowledge and skills for Mathematical Methods (CAS) Units 3 and 4 are contained in Mathematical Methods Units (CAS) Units 1 and 2, and will be drawn on, as applicable in the development of related content from the areas of study, and key knowledge and skills for the outcomes of Mathematical Methods (CAS) Units 3 and 4.

In Unit 3, a study of Mathematical Methods (CAS) would typically include a selection of content from the areas of study ‘Functions and graphs’, ‘Algebra’ and applications of derivatives and differentiation, and identifying and analysing key features of the functions and their graphs from the ‘Calculus’ area of study. In Unit 4, this selection would typically consist of remaining content from the areas of study: ‘Functions and graphs’, ‘Calculus’, ‘Algebra’ and the study of random variables and discrete and continuous probability distributions and their applications. For Unit 4, the content from the ‘Calculus’ area of study would be likely to include the treatment of anti-differentiation, integration, the relation between integration and the area of regions specified by lines or curves described by the rules of functions, and simple applications of this content.

The selection of content from the areas of study should be constructed so that there is a development in the complexity and sophistication of problem types and mathematical processes used (modelling, transformations, graph sketching and equation solving) in application to contexts related to these areas of study. There should be a clear progression of skills and knowledge from Unit 3 to Unit 4 in each area of study.

Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, algebraic manipulation, equation solving, graph sketching, differentiation and integration with and without the use of technology, as applicable. Students should be familiar with relevant mental and by hand approaches in simple cases.

The appropriate use of computer algebra system technology (CAS) to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the course. This will include the use of computer algebra technology to assist in the development of mathematical ideas and concepts, the application of specific techniques and processes to produce required results and its use as a tool for systematic analysis in investigative, problem-solving and modelling work. Other technologies such as spreadsheets, dynamic geometry systems or statistical analysis systems may also be used as appropriate for various topics from within the areas of study.

### **Units 3 and 4: Specialist Mathematics**

Specialist Mathematics consists of the following areas of study: ‘Functions, relations and graphs’, ‘Algebra’, ‘Calculus’, ‘Vectors’ and ‘Mechanics’. The development of course content should highlight mathematical structure and proof. All of this material must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. The selection of materials for Unit 3 and Unit 4 should be constructed so that there is a balanced and progressive development of knowledge and skills with connections among the areas of study being developed as appropriate across Unit 3 and Unit 4. Specialist Mathematics Units 3 and 4 assumes concurrent or previous study of Mathematical Methods (CAS) Units 3 and 4. They contain assumed knowledge and skills for Specialist Mathematics, which will be drawn on as applicable in the development of content from the areas of study and key knowledge and skills for the outcomes.

In Unit 3 a study of Specialist Mathematics would typically include content from ‘Functions, relations and graphs’ and a selection of material from the ‘Algebra’, ‘Calculus’ and ‘Vectors’ areas of study. In Unit 4 this selection would typically consist of the remaining content from the ‘Algebra’, ‘Calculus’, and ‘Vectors’ areas of study and the content from the ‘Mechanics’ area of study.

Students are expected to be able to apply techniques, routines and processes, involving rational, real and complex arithmetic, algebraic manipulation, diagrams and geometric constructions, solving equations, graph sketching, differentiation and integration related to the areas of study, as applicable, both with and without the use of technology. The appropriate use of technology to support and develop the teaching and learning of mathematics is to be incorporated throughout the units. This will include the use of some of the following technologies for various areas of study or topics: graphics calculators, spreadsheets, graphing packages, dynamic geometry systems and computer algebra systems. In particular, students are encouraged to use graphics calculators and other technologies both in the learning of new material and the application of this material in a variety of different contexts.

Familiarity with sequence and series notation and related simple applications, the use of sine and cosine rules in non-right-angled triangles and the following mathematics is assumed:

- the solution of triangles in two-dimensional situations;
- the sum of the interior angles of a triangle is  $180^\circ$ ;
- the sum of the exterior angles of a convex polygon is  $360^\circ$ ;
- corresponding angles of lines cut by a transversal are equal if, and only if, the lines are parallel;
- alternate angles of lines cut by a transversal are equal if, and only if, the lines are parallel;
- opposite angles of a parallelogram are equal;
- opposite sides of a parallelogram are equal in length;
- the base angles of an isosceles triangle are equal;
- the line joining the vertex to the midpoint of the base of an isosceles triangle is perpendicular to the base;
- the perpendicular bisector of the base of an isosceles triangle passes through the opposite vertex;
- the angle subtended by an arc at the centre of a circle is twice the angle subtended by the same arc at the circumference;
- the angle in a semicircle is a right angle;
- angles in the same segment of a circle are equal;
- the sum of the opposite angles of a cyclic quadrilateral is  $180^\circ$ ;
- an exterior angle of a cyclic quadrilateral and the interior opposite angle are equal;
- the two tangents to a circle from an exterior point are equal in length;
- a tangent to a circle is perpendicular to the radius to the point of contact;
- the angle between a tangent to a circle and a chord through the point of contact is equal to the angle in the alternate segment.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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



### **Units 3 and 4**

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Mathematics students' level of achievement will be determined by School-assessed Coursework and two end-of-year examinations.

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

#### **Further Mathematics**

- Unit 3 School-assessed Coursework: 20 per cent
- Unit 4 School-assessed Coursework: 14 per cent
- Units 3 and 4 examination 1: 33 per cent
- Units 3 and 4 examination 2: 33 per cent.

#### **Mathematical Methods (CAS)**

- Unit 3 School-assessed Coursework: 20 per cent
- Unit 4 School-assessed Coursework: 14 per cent
- Units 3 and 4 examination 1: 22 per cent
- Units 3 and 4 examination 2: 44 per cent.

#### **Specialist Mathematics**

- Unit 3 School-assessed Coursework: 14 per cent
  - Unit 4 School-assessed Coursework: 20 per cent
  - Units 3 and 4 examination 1: 22 per cent
  - Units 3 and 4 examination 2: 44 per cent.
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# MEDIA

## STUDY SUMMARY

### VCE MEDIA 2012–2016

**Please Note:** This study summary comprises excerpts from the VCE Media Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website <[www.vcaa.vic.edu.au/vce/studies/media/mediaindex.html](http://www.vcaa.vic.edu.au/vce/studies/media/mediaindex.html)> to view the full accredited Study Design and other resources.

#### **Scope of study**

The media is a diverse, dynamic and evolving collection of forms used to inform, communicate with and connect people. Media influence the way people spend their time, help shape the way they perceive themselves and others, and play a crucial role in the creation and exchange of personal, social, cultural, national and global identities. The media entertain, educate, inform and provide channels of communication. This takes place within the broader context of: industrial organisation; political and market structures; professional practices; creative processes; traditional, contemporary and emerging technologies; regulation; and the need to attract and maintain audiences. The relationships between such frames of reference and audiences shape media products and the ways in which they are developed, constructed, distributed and consumed. Notions of audience underlie the creation, distribution, consumption and reception of media texts. Media texts are representations of social, personal and cultural reality, which have been constructed through a process of selection and omission, using media codes and conventions. Codes and conventions may be common to all media products, or specific to individual media forms, texts, genres and styles. VCE Media examines media products as the expression of creative ideas, specific symbolic languages and discourses of society and culture that shape meaning and reflect the society in which they were created. This study explores a variety of media forms, including audio, audiovisual media, print-based media, digital and interactive media technologies and convergent media processes. Students examine and analyse the relationships between audiences and the media; this analysis is undertaken through a theoretical and practical study that places the student in the role of a media creator.

#### **Rationale**

VCE Media provides students with the opportunity to analyse media products and concepts in an informed and critical way. Students consider media texts, technologies and processes from various perspectives, including an analysis of structure and features. They examine industry production and distribution context, audience reception and the media's contribution to and impact on society. This aspect of the study is integrated with the individual and collaborative design and production of media representations and products. VCE Media supports students to develop and refine their analytical, critical, creative thinking and expression. Students strengthen their communication skills and technical knowledge. This study is relevant for students who wish to pursue further formal study at tertiary level or in vocational education and training settings. The study provides knowledge and skills in creative thinking, planning, analysis, creative expression and communication valuable for participation in and contribution towards contemporary society.

#### **Structure**

The study is made up of four units.

Each unit contains three areas of study.

Unit 1: Representation and technologies of representation

Unit 2: Media production and the media industry

Unit 3: Narrative and media production design

Unit 4: Media: process, influence and society's values

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

## **Entry**

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

### **Unit 1: Representation and technologies of representation**

In this unit students develop an understanding of the relationship between the media, technology and the representations present in media forms. They study the relationships between media technologies, audiences and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, the role audiences play in constructing meaning from media representations, and the creative and cultural impact of new media technologies.

### **Unit 2: Media production and the media industry**

In this unit students develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students participate in specific stages of a media production, developing practical skills in their designated role. Students also develop an understanding of media industry issues and developments relating to production stages and roles and the broader framework within which Australian media organisations operate.

### **Unit 3: Narrative and media production design**

In this unit students develop an understanding of film, television or radio drama production and story elements, and learn to recognise the role and significance of narrative organisation in fictional film, television or radio drama texts. Students examine how production and story elements work together to structure meaning in narratives to engage audiences. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They complete a media production design plan for a specific media form and audience. They present the relevant specifications as a written planning document, with visual representations that employ media planning conventions appropriate to the media form in which the student chooses to work.

### **Unit 4: Media: process, influence and society's values**

In this unit students further develop practical skills in the production of media products to realise the production design plan completed during Unit 3. Organisational and creative skills are refined and applied throughout each stage of the production process. Students analyse the relationship between media texts, social values and discourses in the media. The nature and extent of media influence, the relationship between the media, media audiences and media regulation are also critically analysed in this unit.

## **Assessment**

### **Satisfactory Completion**

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

## Levels of Achievement

### Units 1 and 2

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

### Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Media students' level of achievement will be determined by School-assessed Coursework, School-assessed Task and an end-of-year examination. The School-assessed Task information and assessment criteria for Units 3 and 4 are published annually in the *VCAA Bulletin VCE, VCAL and VET Bulletin Supplement 1: Administrative advice for school-based assessment*. The Victorian Curriculum and Assessment Authority will report students' level of performance on each assessment component as a grade from A+ to E or UG (ungraded). To receive a study score, students must achieve two or more graded assessments and receive S for both Units 3 and 4. The study score is reported on a scale of 0–50; it is a measure of how well the student performed in relation to all others who took the study. Teachers should refer to the current *VCE and VCAL Administrative Handbook* for details on graded assessment and calculation of the study score.

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

- Unit 3 School-assessed Coursework: 8 per cent
- Unit 4 School-assessed Coursework: 12 per cent
- School-assessed Task: 35 per cent
- End-of-year examination: 45 per cent.

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## MUSIC PERFORMANCE

### STUDY SUMMARY

#### Music 2011–2015

**Please Note: This study summary comprises excerpts from the VCE Music Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/futuresd.html>) to view the full accredited Study Design and other resources.**

#### Rationale

Music is an integral part of all cultures and societies, both contemporary and historical. The study of music develops students' understanding of artistic processes and contributes to the development of the aesthetic, cognitive, psychomotor and affective domains.

VCE Music offers students opportunities to engage in the practice of performing, creating and studying music that is representative of diverse genres, styles and cultures. Students can specialise in one or more approaches to the study of music, depending on their VCE program overall and the post-VCE pathways they may be interested in following.

Students develop knowledge of stylistic, aesthetic and expressive qualities and characteristics of music and develop their ability to communicate their understanding through music making: performing, composing, arranging and/or improvising; and musicianship: aural perception, analysis and music language.

VCE Music offers students opportunities for personal development and to make an ongoing contribution to the culture of their community through participation in life-long music making.

## Structure

The study is made up of:

- Music Performance Units 1, 2, 3 and 4

Each unit contains between two and four areas of study.

The following diagram outlines the structure of VCE Music 2011–2015:

## Entry

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

## Units 1–4: Music Performance

### Unit 1

This unit focuses on building performance and musicianship skills. Students present performances of selected group and solo music works using one or more instruments. They study the work of other performers and explore strategies to optimise their own approach to performance. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and practise technical work to address these challenges. They also develop skills in performing previously unseen music. Students study aural, theory and analysis concepts to develop their musicianship skills and apply this knowledge when preparing and presenting performances.

### Unit 2

In this unit students build their performance and musicianship skills. They present performances of selected group and solo music works using one or more instruments. Students study the work of other performers through listening and analysis and use specific strategies to optimise their own approach to performance. They also study strategies for developing technical and expressive performance skills. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and practise related technical work. They develop skills in performing previously unseen music and study specific concepts to build their musicianship knowledge and skills. Students also devise an original composition or improvisation.

### Unit 3

This unit prepares students to present convincing performances of group and solo works. In this unit students select a program of group and solo works representing a range of styles and diversity of character for performance. They develop instrumental techniques that enable them to interpret the works and expressively shape their performances. They also develop an understanding of performance conventions they can use to enhance their performances. Students develop skills in unprepared performance, aural perception and comprehension, transcription, music theory and analysis. The focus for analysis in Area of Study 3 is works and performances by Australian musicians.

### Unit 4

In this unit students refine their ability to present convincing performances of group and solo works. Students select group and solo works that complement works selected in Unit 3. They further develop and refine instrumental and performance techniques that enable them to expressively shape their performance and communicate their understanding of the music style of each work. Students continue to develop skills in aural perception and comprehension, transcription, theory, analysis and unprepared performance. Students continue to study ways in which Australian performers interpret works that have been created since 1910 by Australian composers/songwriters.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Music Performance students' level of achievement will be determined by School-assessed Coursework, an end-of-year performance examination and an end-of-year aural and written examination. In VCE Music Investigation students' level of achievement will be determined by School-assessed Coursework and an end-of-year performance examination. In VCE Music Style and Composition students' level of achievement will be determined by School-assessed Coursework, an Externally-assessed Task and an aural and written end-of-year aural and written examination.

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

#### ***VCE Music Performance Units 3 and 4***

- Units 3 and 4 School-assessed Coursework: 30 per cent
- External end-of-year performance examination: 50 per cent
- External end-of-year aural and written examination: 20 per cent

#### ***VCE Music Investigation Units 3 and 4***

- Unit 3 School-assessed Coursework: 25 per cent
- Unit 4 School-assessed Coursework: 25 per cent
- External end-of-year performance examination: 50 per cent

#### ***VCE Music Style and Composition Units 3 and 4***

- Units 3 and 4 School-assessed Coursework: 30 per cent
- Units 3 and 4 Externally-assessed Task: 30 per cent
- External end-of-year aural and written examination: 40 per cent

# MUSIC

## STUDY SUMMARY VCE VET

### MUSIC



The VCE VET Music program is drawn from a national training package and offers portable qualifications which are recognised throughout Australia. These qualifications provide students with the knowledge and skills to enhance their employment prospects within the music industry.

#### What qualification/s will I receive?

The VCE VET Music program enables you to receive one or more of the following nationally recognised qualifications:

- Program 1: Certificate II in Music
- Program 2: Certificate III in Music
- Program 3: Certificate III in Technical Production.

These qualifications are drawn from the CUS09 Music Training Package and are issued by a Registered Training Organisation (RTO).

#### What will I learn and what career opportunities will I have?

##### *Program 1: Certificate II in Music*

**VCE credit:** you will be eligible for up to four units towards your VCE – at Units 1 and 2 level.

**VCAL credit:** you will be eligible for up to four credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate II in Music provides you with the foundation knowledge and skills required for entry into the music industry. Core units of competency in the program include developing and updating industry knowledge, participating in work, health and safety processes and working effectively with others. The elective units in the program allow you to specialise in an area of your interest from preparing for performances, mixing sound in a broadcasting environment or repairing and maintaining audio equipment.

**Career opportunities:** With additional training and experience future employment opportunities may include band member, sound or studio engineer, writer/arranger, sales and merchandising personnel.

##### *Program 2: Certificate III in Music*

**VCE credit:** you will be eligible for up to five units towards your VCE: three units at Units 1 and 2 level, and a Units 3 and 4 sequence. A study score is available for this program, which can contribute directly towards your ATAR – either as one of your best four studies (the primary four) or as your fifth or sixth study.

**VCAL credit:** you will be eligible for up to five credits towards your VCAL – at the Foundation, Intermediate or Senior levels.

**Description:** Certificate III in Music provides you with the opportunity to apply a broad range of knowledge and skills in varied work contexts in the music industry. Depending on the electives chosen, Units 1 and 2 include making a music demo, composing simple songs or musical pieces and preparing for performances. Units 3 and 4 offer scored assessment and include units such as developing improvisation skills, applying knowledge of genre to music making and performing music as part of a group or as a soloist.



## **OUTDOOR AND ENVIRONMENTAL STUDIES**

### **STUDY SUMMARY**

#### **VCE OUTDOOR AND ENVIRONMENTAL STUDIES 2012–2016**

**Please Note:** This study summary comprises excerpts from the VCE Outdoor and Environmental Studies Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website [www.vcaa.vic.edu.au/vce/studies/outdoor/outdoorindex.html](http://www.vcaa.vic.edu.au/vce/studies/outdoor/outdoorindex.html) to view the full accredited Study Design and other resources.

#### **Scope of study**

VCE Outdoor and Environmental Studies is concerned with the ways humans interact with and relate to outdoor environments. ‘Outdoor environments’ include environments that have minimum influence from humans, as well as those environments that have been subject to different levels of human intervention. The study enables students to make critically informed comment on questions of environmental sustainability and to understand the importance of environmental health, particularly in local contexts.

In this study both passive and active outdoor activities provide the means for students to develop experiential knowledge of outdoor environments. Such knowledge is then enhanced through the theoretical study of outdoor environments from perspectives of environmental history, ecology and the social studies of human relationships with nature. The study also examines the complex interplay between human impacts on outdoor environments and nature’s impact on humans.

Outdoor experiences suited to this study include a range of guided activities in areas such as farms, mining/logging sites, interpretation centres, coastal areas, rivers, mountains, bushland, forests, urban parks, and state or national parks. Activities undertaken could include bushwalking, cross-country skiing, canoe touring, cycle touring, conservation and restoration activities, marine exploration, and participation in community projects. Outdoor experiences that use weapons or motorised devices to replace human effort are not suitable for this study.

#### **Rationale**

VCE Outdoor and Environmental Studies provides students with the skills and knowledge to safely participate in activities in outdoor environments and to respect and value diverse environments. The blend of direct practical experience of outdoor environments with more theoretical ways of knowing, enables informed understanding of human relationships with nature.

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

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



## **Structure**

The study is made up of four units.

Unit 1: Exploring outdoor experiences

Unit 2: Discovering outdoor environments

Unit 3: Relationships with outdoor environments

Unit 4: Sustainable outdoor relationships

Each unit contains two Areas of Study.

## **Entry**

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

### **Unit 1: Exploring outdoor experiences**

This unit examines some of the ways in which humans understand and relate to nature through experiences of outdoor environments. The focus is on individuals and their personal responses to and experiences of outdoor environments.

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

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

### **Unit 2: Discovering outdoor environments**

This unit focuses on the characteristics of outdoor environments and different ways of understanding them, as well as the human impacts on outdoor environments.

In this unit students study nature's impact on humans, as well as the ecological, social and economic implications of human impact on outdoor environments. Students develop a clear understanding of the impact of technologies and changing human lifestyles on outdoor environments.

Students examine a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention. They develop the practical skills required to minimise human impact on outdoor environments. Students are provided with practical experiences as the basis for comparison between outdoor environments and reflection to develop theoretical knowledge about natural environments.

### **Unit 3: Relationships with outdoor environments**

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

Students consider a number of factors that influence contemporary relationships with outdoor environments. They also examine the dynamic nature of relationships between humans and their environment.

Students are involved in one or more experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop theoretical knowledge and skills about specific natural environments.

## **Unit 4: Sustainable outdoor relationships**

In this unit students explore the sustainable use and management of outdoor environments. They examine the contemporary state of environments in Australia, consider the importance of healthy outdoor environments, and examine the issues in relation to the capacity of outdoor environments to support the future needs of the Australian population.

Students examine the importance of developing a balance between human needs and the conservation of outdoor environments and consider the skills needed to be environmentally responsible citizens. They investigate current agreements and environmental legislation, as well as management strategies and policies for achieving and maintaining healthy and sustainable environments in contemporary Australian society.

Students engage in one or more related experiences in outdoor environments. They learn and apply the practical skills and knowledge required to sustain healthy outdoor environments, and evaluate the strategies and actions they employ. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop and apply theoretical knowledge about outdoor environments.

### **Assessment**

#### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

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

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## **PÂTISSERIE**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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# **PHYSICAL EDUCATION**

## **STUDY SUMMARY**

### **VCE PHYSICAL EDUCATION 2011–2015**

**The accreditation period for VCE Physical Education has been extended until 31 December 2015.**

**Please Note: This study summary includes excerpts from the VCE Physical Education Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/physicaledu/phyeduindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/physicaledu/phyeduindex.aspx)) to view the full accredited Study Design and other resources.**

### **Rationale**

VCE Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between motor learning and psychological, biomechanical, physiological and sociological factors that influence physical performances, and participation in physical activity. The study of physical activity and sedentary behaviour is significant for the understanding of health, wellbeing and performance of people.

The study enables the integration of theoretical knowledge with practical application through participation in physical activities. There are opportunities for students to apply theoretical concepts and reflect critically on factors that affect all levels of performance and participation.

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

### **Structure**

The study is made up of four units:

Unit 1: Bodies in motion

Unit 2: Sports coaching and physically active lifestyles

Unit 3: Physical activity participation and physiological performance

Unit 4: Enhancing performance

Each unit contains between two and four areas of study.

### **Entry**

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

## **Unit 1: Bodies in motion**

In this unit students explore how the body systems work together to produce movement and analyse this motion using biomechanical principles. Through practical activities students explore the relationships between the body systems and physical activity. They are introduced to the aerobic and anaerobic pathways utilised to provide the muscles with the energy required for movement and the basic characteristics of each pathway.

Students apply biomechanical principles to improve and refine movement. They use practical activities to demonstrate biomechanical principles and how the correct application of biomechanics can lead to improved performance in sport and physical activity.

In Area of Study 3, there are two detailed studies: Technological advancements from a biomechanical perspective and Injury prevention and rehabilitation, which will expand and build on the knowledge and skills introduced in Areas of Study 1 and 2. Students select one of these detailed studies to explore in greater depth.

## **Unit 2: Sports coaching and physically active lifestyles**

This unit explores a range of coaching practices and their contribution to effective coaching and improved performance of an athlete. The way in which a coach influences an athlete can have a significant effect on performance. The approach a coach uses, the methods applied and the skills used will have an impact on the degree of improvement experienced by an athlete. By studying various approaches and applying this knowledge to a practical session, students gain a practical insight into coaching.

Students are introduced to physical activity and the role it plays in the health and wellbeing of the population. Through a series of practical activities, students gain an appreciation of the level of physical activity required for health benefits and investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence participation in regular physical activity, and collect data to identify perceived barriers and the ways in which these barriers can be overcome.

In Area of Study 3, there are two detailed studies: Decision making in sport and Promoting active living, which will expand and build on the knowledge and skills introduced in Areas of Study 1 and 2. Students select one of these detailed studies to explore in greater depth.

## **Unit 3: Physical activity participation and physiological performance**

This unit introduces students to an understanding of physical activity and sedentary behaviour from a participatory and physiological perspective. Students apply various methods to assess physical activity and sedentary levels, and analyse the data in relation to adherence to the National Physical Activity Guidelines. Students study and apply the social-ecological model to identify a range of Australian strategies that are effective in promoting participation in some form of regular activity.

Students investigate the contribution of energy systems to performance in physical activity. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the multi-factorial causes of fatigue and consider different strategies used to delay and manage fatigue and to promote recovery.

## **Unit 4: Enhancing performance**

Improvements in performance, in particular fitness, depend on the ability of the individual or coach to gain, apply and evaluate knowledge and understanding of training. Students undertake an activity analysis. Using the results of the analysis, they then investigate the required fitness components and participate in a training program designed to improve or maintain selected components. Athletes and coaches aim to continually improve and use nutritional, physiological and psychological strategies to gain advantage over the competition. Students learn to critically evaluate different techniques and practices that can be used to enhance performance, and look at the rationale for the banning or inclusion of various practices from sporting competition.

## Assessment

### Satisfactory Completion

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

### Levels of Achievement

#### *Units 1 and 2*

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

#### *Units 3 and 4*

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

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

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

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## PHYSICS

### STUDY SUMMARY

### VCE PHYSICS 2013–2016

**Please Note: This study summary comprises excerpts from the VCE Physics Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/physics/physicsindex.html>) to view the full accredited Study Design and other resources.**

### Rationale

Physics is a theoretical and empirical science, which contributes to our understanding of the physical universe from the minute building blocks of matter to the unimaginably broad expanses of the Universe. This understanding has significance for the way we understand our place in the Universe.

This study is designed to enhance the scientific literacy of students in the specialised area of physics. Scientifically literate physics students demonstrate interest in and understanding of the Universe, engage in debates about the nature of evidence, theories and models, and appreciate the value of physics in society. They can describe and use theories and models, propose and investigate hypotheses, collect data, analyse the limitations of that data, draw conclusions, make recommendations, and select and use a range of appropriate technologies and mathematical techniques.

The knowledge gained through physics will enhance students' ability to be innovative and contribute to the intelligent and careful use of resources. This knowledge can be used, for example, in industrial, medical, engineering and technical applications.

Knowledge in physics is gained through complex processes; for example, theories developed from studying the ways that matter interacts with matter, and the ways that light and matter interact, have led to innovations in medicine, electronics, energy use, telecommunications and materials science.

This study design will assist teachers to provide a curriculum that is interesting and challenging for students with a wide range of expectations, including students who are aiming for medical, engineering, technology-based and science-based careers.

## **Structure**

The study is made up of four units. Units 1 and 2 contain two prescribed areas of study and a third area of study to be selected from the list of detailed studies available in Units 1 and 2; the selected detailed study in Unit 2 must be different from that selected in Unit 1. Units 3 and 4 contain two prescribed areas of study; a third area of study is to be selected from the list of detailed studies for Units 3 and 4 and will be completed in either Unit 3 or Unit 4.

Each unit contains either two or three areas of study.

## **Entry**

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional reading as prescribed by their teacher. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education. All VCE studies are benchmarked against comparable national and international standards.

## **Unit 1**

This unit focuses on Physics as a human endeavour. Observations and ideas about the physical world related to aspects of energy are organised and explained through the use of conceptual models. The detailed studies provide opportunities to explore the application of energy concepts and models in nuclear energy, sustainable energy sources, flight, space and medical contexts.

Students undertake regular experimental work in the laboratory starting with simple observations and measurements. A quantitative investigation involving the collection and analysis of sufficient data points for at least one independent variable will be undertaken. The investigation should be at least partly student designed.

The use of simple mathematical modelling, including calculations, is introduced to organise first-hand and second-hand data in order to make predictions and link concepts. Students begin to solve qualitative and quantitative problems in familiar contexts. Computer and/or graphics calculator programs are used to collect and analyse first-hand and second-hand data and to present investigation findings.

Unit 1 consists of two prescribed areas of study: Nuclear physics and radioactivity; and Electricity; and a third area of study to be chosen from one of six detailed studies: Astronomy, Astrophysics, Energy from the nucleus, Investigations: Flight, Investigations: Sustainable energy sources, and Medical physics.

In this unit, students make and test predictions, identify discrete and continuous variables, select relevant independent variables and recognise controlled variables. They apply a given method for a simple investigation to control variables and collect relevant data. Students record raw qualitative and quantitative data and present processed data, including correct use of units, symbols and formulas, appropriately. They use suitable materials, apparatus and measurement procedures to ensure reliability in the data. When drawing relevant conclusions from their investigations, students recognise sources of uncertainty and error. When completing independent and collaborative investigations, they identify alternative interpretations of data and results. They use appropriate sources to identify and assess risks to themselves, other living things and the environment of Physics related principles and procedures, and they use this knowledge to apply safe, ethical and responsible practices.

As a guide, at least 10 hours of class time should be devoted to student practical work across the three areas of study.

## Unit 2

This unit focuses on the application of models to more complex phenomena – motion and light – developed within contexts that are familiar to students and relevant to their experiences. Newtonian ideas of motion are extended to include a range of movements and more abstract ideas, while the wave and particle models of light provide a framework for exploring light phenomena in real world applications. The detailed studies provide opportunities to explore motion and/or light in nuclear, sustainable energy, flight, space and medical contexts.

Students continue to undertake extensive and regular experimental work in the laboratory. They design and undertake more complex investigations involving at least one independent, continuous variable, and take increasing responsibility for the design of investigations.

The use of simple mathematical modelling, including calculations, to organise first-hand and second-hand data, to make predictions and to link concepts is further developed and applied to more extensive data. Students begin to analyse and solve quantitative and qualitative problems in familiar contexts. Computer and graphics calculator programs are used to collect and analyse first-hand and second-hand data, and to present investigation findings.

Unit 2 consists of two prescribed areas of study: Motion and Wave-like properties of light; and a third area of study to be chosen from one of six detailed studies: Astronomy, Astrophysics, Energy from the nucleus, Investigations: Flight, Investigations: Sustainable energy sources and Medical physics. The detailed study chosen in Unit 2 must be a different detailed study from that chosen in Unit 1.

In this unit, students identify a problem or research question and formulate a prediction or hypothesis, select at least one relevant independent continuous variable and recognise controlled variables. They adapt or extend given methods, or at least partly design their own methods, for the control of variables and the systematic collection and recording of sufficient relevant data for simple investigations.

Students record raw qualitative and quantitative data and present processed data, including correct use of units, symbols and formulas, appropriately. They select and use appropriate materials, apparatus and measurement procedures to ensure reliability in the data. When drawing relevant conclusions from their investigations, students take into account sources of error and uncertainty. They evaluate limitations of, and weaknesses and errors in, techniques and equipment. Alternative interpretations of data and results are identified. Students identify and apply safe and responsible practices when completing independent and collaborative investigations. They use appropriate information sources to assess risk.

As a guide, at least 10 hours of class time should be devoted to student practical work across the three areas of study.

## Unit 3

Unit 3 consists of two prescribed areas of study: Motion in one and two dimensions; and Electronics and photonics. A detailed study is to be chosen in either Unit 3 or Unit 4 from one of six detailed studies: Einstein's special relativity, Materials and their use in structures, Further electronics, Synchrotron and its applications, Photonics, and Sound.

This unit focuses on the ideas that underpin much of the technology found in areas such as communications, engineering, commerce and industry. Motion in one and two dimensions is introduced and applied to moving objects on Earth and in space. Circuit models are applied to further aspects of electricity and electronics, and the operation and use of photonic devices are introduced. The detailed studies offer examples of theoretical and practical applications of these technologies.

Students continue to have regular experience in experimental investigation in the laboratory. They design and carry out an extended practical investigation. They collect accurate data, evaluate the quality of data and measurement processes, and make conclusions based on the data.

Mathematical modelling, including calculations, is applied to all areas of study to organise first-hand and second-hand data, make predictions and link concepts. Students analyse and solve more complex qualitative and quantitative problems.

Computer and/or graphics calculator programs are used to collect and analyse first-hand and second-hand data, and to present investigation findings.

In this unit, students select focused research questions and formulate a quantitatively testable hypothesis. They identify variables of significance to an investigation and decide the appropriate variables to be controlled. They adapt or extend given methods, and design their own methods, for the control of variables and the systematic collection of sufficient relevant data for focused investigations.

Students record raw qualitative and quantitative data accurately and present processed data, including correct use of units, symbols and formulas, to ensure that relationships between variables are evident. They select and use appropriate materials, apparatus and measurement procedures to ensure a high degree of reliability and accuracy in the data. Students interpret their results to draw relevant conclusions from their investigations. They identify sources of error and estimate uncertainties in, and reliability of, data and derived quantities. They analyse procedures and results, taking into account limitations of, and weaknesses and errors in, techniques and equipment. Alternative interpretations of data and results are identified and explained. They identify and apply safe and responsible practices when designing and completing independent and collaborative investigations. Students select and use appropriate information sources to assess risk.

As a guide, between  $3\frac{1}{2}$  and 5 hours of class time should be devoted to student practical work for each prescribed area of study and between  $3\frac{1}{2}$  and 5 hours of class time should be devoted to student practical work for the detailed study if undertaken in Unit 3.

## Unit 4

Unit 4 consists of two prescribed areas of study: Electric power and Interactions of light and matter. A detailed study is to be chosen in either Unit 3 or Unit 4 from one of six detailed studies: Einstein's special relativity, Materials and their use in structures, Further electronics, Synchrotron and its applications, Photonics, and Sound.

This unit focuses on the development and limitations of models in explaining physical phenomena. A field model of electromagnetism is applied to the generation of electricity, and the development of models that explain the complex interactions of light and matter are considered. The detailed studies provide examples of innovative technologies used for research and communication.

Students continue to undertake extensive and regular experimental work in the laboratory. They design and carry out investigations, collect accurate data, evaluate the quality of data and measurement processes and make conclusions based on the data.

Mathematical modelling, including calculations, continues to be used to organise first-hand and second-hand data, to link concepts, to make predictions and to identify trends. Students analyse and solve more complex qualitative and quantitative problems.

Computer and/or graphical calculator programs are used to collect and analyse first-hand and second-hand data, and to present investigation findings.

In this unit, students develop conceptual understanding by investigating practical activities and demonstrations. Students record raw qualitative and quantitative data and present processed data, including correct use of units, symbols and formulas, accurately and to ensure that relationships between variables are evident. They select and use appropriate materials, apparatus and measurement procedures to ensure a high degree of reliability and accuracy in the data. Students analyse their results to draw relevant conclusions. They identify sources of error and uncertainties to determine the reliability of data and derived quantities. Alternative interpretation of data and results are identified and explained. They identify and apply safe and responsible practices when completing independent and collaborative investigations.

As a guide, between  $3\frac{1}{2}$  and 5 hours of class time should be devoted to student practical work for each prescribed area of study and between  $3\frac{1}{2}$  and 5 hours of class time should be devoted to student practical work for the detailed study if undertaken in Unit 4.



## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

- Unit 3 School-assessed Coursework: 20 per cent
  - Unit 4 School-assessed Coursework: 20 per cent
  - End-of-year examination: 60 per cent.
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## **PLUMBING**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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# PRODUCT DESIGN AND TECHNOLOGY

## STUDY SUMMARY

### VCE PRODUCT DESIGN AND TECHNOLOGY 2012–2016

Please Note: This study summary comprises excerpts from the VCE Product Design and Technology Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/designtech/destechindex.html>) to view the full accredited Study Design and other resources.

#### Scope of Study

Product design is part of people's responses to changing needs to improve quality of life by designing and creating artefacts. Product design is enhanced through knowledge of social, technological, economic, historic, ethical, legal, environmental and cultural factors. These factors affect the aesthetics, form and function of products developed in the past and those yet to be developed. Central to VCE Product Design and Technology is the Product design process, which provides a structure for students to develop effective design practice. The design process involves identification of a real need that is then articulated in a design brief. The need is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional functional products. Development of these solutions requires the application of technology and a variety of cognitive and physical skills, including creative design thinking, drawing and computer-aided design, testing processes and materials, planning, construction, fabrication and evaluation.

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

The knowledge and use of resources is integral to product design. These resources include a range of materials, and the tools, equipment and machines needed to transform these materials in a safe manner into useful products. Increasingly, the importance of environmental sustainability is having an impact on product design and development. More sustainable approaches are therefore at the forefront throughout the product lifecycle.

#### Rationale

Designers play an important part in our daily lives. They determine the form and function of the products we use. They transform ideas into drawings and plans for the creation and manufacture of useful products that fulfil human needs and wants. In recent history the use of resources to create an ever-increasing array of products has given designers an increased responsibility to think sustainably.

Students develop an understanding of the consequences of product design choices. They develop the necessary skills to critically analyse existing products and to develop their own creative solutions.

VCE Product Design and Technology can provide a pathway to a range of related fields such as industrial, product, interior and exhibition design, engineering, and fashion, furniture, jewellery, textile and ceramic design at both professional and vocational levels. Moreover, VCE Product Design and Technology can inform sustainable behaviours and develop technical skills to present multiple solutions to everyday life situations. It contributes to creating confident and unique problem solvers and project managers well equipped to deal with the multi-disciplinary nature of modern workplaces.

#### Structure

The study is made up of four units:

Unit 1: Product re-design and sustainability

Unit 2: Collaborative design

Unit 3: Applying the product design process

Unit 4: Product development and evaluation

Each unit contains between two and four Areas of Study.

## **Entry**

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

## **Unit 1: Product re-design and sustainability**

This unit focuses on the analysis, modification and improvement of a product design with consideration of the materials used and issues of sustainability. Finite resources and the proliferation of waste require sustainable product design thinking. Many products in use today have been redesigned to suit the changing needs and demands of users but with little consideration of their sustainability.

Knowledge of material use and suitability for particular products is essential in product design.

Additionally, knowledge of the source, origin and processing of materials is central to sustainable practices. Students consider the use of materials from a sustainable viewpoint. Sustainable practices claimed to be used by designers are examined.

Area of Study 1 provides an introduction and structured approach towards the Product design process and Product design factors. Students learn about intellectual property (IP), its implications related to product design and the importance of acknowledging the IP rights of the original designer.

In Area of Study 2, students produce a re-designed product safely using tools, equipment, machines and materials, compare it with the original design and evaluate it against the needs and requirements outlined in their design brief. If appropriate, a prototype made of less expensive materials can be presented; however, the specific materials intended for the final product would need to be indicated. A prototype is expected to be of full scale and considered to be the final design of a product before production of multiples.

## **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: human needs and wants; function, purpose and context for product design; aesthetics; materials and sustainability; 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 examine the use of ICT to facilitate teams that work collaboratively but are spread across the globe.

In this unit students are able to gain inspiration from an historical and/or a cultural design movement or style and its defining factors such as ideological or technological change, philosophy or aesthetics.

In Area of Study 1, students work both individually and as members of a small design team to address a problem, need or opportunity and consider the associated human-centred design factors. They design a product within a range, based on a theme, or a component of a group product. They research and refer to a chosen style or movement. In Area of Study 2 the product produced individually or collectively is evaluated.

## **Unit 3: Applying the Product design process**

In this unit students are engaged in the design and development of a product that meets the needs and expectations of a client and/or an end-user, developed through a design process and influenced by a range of complex factors. These factors include the purpose, function and context of the product; human-centred design factors; innovation and creativity; visual, tactile and aesthetic factors;

sustainability concerns; economic limitations; legal responsibilities; material characteristics and properties; and technology. Design and product development and manufacture occur in a range of settings. An industrial setting provides a marked contrast to that of a 'one-off situation' in a small 'cottage' industry or a school setting. Although a product design process may differ in complexity or order, it is central to all of these situations regardless of the scale or context. This unit examines different settings and takes students through the Product design process as they design for others.

In the initial stage of the Product design process, a design brief is prepared. It outlines the context or situation around the design problem and describes the needs and requirements in the form of constraints or considerations.

In Area of Study 1, students examine how a design brief is structured, how it addresses particular Product design factors and how evaluation criteria are developed from the constraints and considerations in the brief. They develop an understanding of techniques in using the design brief as a springboard to direct research and design activities.

In Area of Study 2, students examine how a range of factors, including new and emerging technologies, and international and Australian standards, influence the design and development of products within industrial manufacturing settings. They consider issues associated with obsolescence and sustainability models.

In Area of Study 3, students commence the application of the Product design process for a product design for a client and/or an end-user, including writing their own design brief which will be completed and evaluated in Unit 4.

#### **Unit 4: Product development and evaluation**

In this unit students learn that evaluations are made at various points of product design, development and production. In the role of designer, students judge the suitability and viability of design ideas and options referring to the design brief and evaluation criteria in collaboration with a client and/or an end-user. Comparisons between similar products help to judge the success of a product in relation to a range of Product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the Product design factors.

In Area of Study 1, students use comparative analysis and evaluation methods to make judgments about commercial product design and development.

In Area of Study 2, students continue to develop and safely manufacture the product designed in Unit 3, Outcome 3, using materials, tools, equipment and machines, and record and monitor the production processes and modifications to the production plan and product.

In Area of Study 3, students evaluate the effectiveness and efficiency of techniques they used and the quality of their product with reference to evaluation criteria and client and/or end-user feedback. Students make judgments about possible improvements. They produce an informative presentation to highlight the product's features to the client and/or an end-user and explain its care requirements.

#### **Assessment**

##### **Satisfactory Completion**

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

##### **Levels of Achievement**

###### **Units 1 and 2**

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

## **Units 3 and 4**

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of Product Design and Technology students' level of achievement will be determined by School-assessed Coursework, School-assessed Task and an End-of-year examination.

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

- School-assessed Coursework (Units 3 and 4) 20 percent
- School-assessed Task (Units 3 and 4) 50 percent
- End-of-year examination: 30 percent

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# **PSYCHOLOGY**

## **STUDY SUMMARY**

### **VCE PSYCHOLOGY 2013–2016**

**Please Note: This study summary comprises excerpts from the VCE Psychology Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/psychology/psychunit1-2.html>) to view the full accredited Study Design and other resources.**

### **Rationale**

Psychology is the scientific study of mental processes and behaviour in humans. Biological, behavioural, cognitive and socio-cultural perspectives inform the way psychologists approach their research into the human condition.

The science of psychology has produced rapid expansion in knowledge, particularly in the fields of neuroscience and cognition. This growth has been fuelled by the emergence of new interdisciplinary approaches, advances in imaging technologies and a broader public interest in applications of psychology. As a result, new ethical frameworks have emerged for neuroscientific and psychological research, clinical practice and commercial applications.

In the VCE study of Psychology, students explore complex human behaviours and thought processes. They develop empathetic understandings and an understanding of mental health issues in society. Students are given the opportunity to apply psychological principles to everyday situations such as workplace and social relations. Psychology provides students with a sophisticated framework for understanding the complex interactions between biological, behavioural, cognitive and socio-cultural factors that influence thought, emotions and behaviour. The study assists students to further develop effective language skills for communication, and numeracy skills for research, data analysis and other applications. In addition, students develop a range of broader skills including those of problem solving, critical evaluation and the application of processes of scientific inquiry.

The study of Psychology leads to opportunities in a range of careers that involve working with children, adults, families and communities in a variety of settings. These include academic and research institutions, management and human resources, and government, corporate and private enterprises. Fields of applied psychology include educational, environmental, forensic, health, sport and organisational psychology. Specialist fields of psychology include counselling and clinical contexts, as well as neuropsychology, social psychology and developmental psychology.

## **Structure**

The study is made up of four units:

Unit 1: Introduction to psychology

Unit 2: Self and others

Unit 3: The conscious self

Unit 4: Brain, behaviour and experience

Each unit contains two areas of study.

## **Entry**

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

### **Unit 1: Introduction to psychology**

In this unit students are introduced to the development of psychology from its philosophical beginnings to a scientific study of the human mind and behaviour. Students explore the scope of psychology, its specialist disciplines such as neuropsychology, cognitive, social and human developmental psychology, and its fields of application. Students consider influences on perception and human behaviour from biological, behavioural, cognitive and socio-cultural perspectives. They examine the contribution classic and contemporary studies have made to the development of different psychological theories used to predict and explain the human mind, and behaviours associated with particular stages of development over a lifespan.

Students analyse research methodologies associated with classic and contemporary theories, studies and models, consider ethical issues associated with the conduct of research and the use of findings, and apply appropriate research methods when undertaking their own investigations. The specific research methodologies and ethical principles considered in this unit are described in detail in the introduction to Unit 1 in the study design.

### **Unit 2: Self and others**

A person's attitudes and behaviours affect the way they view themselves and the way they relate to others. Understanding what influences the formation of attitudes of individuals and behaviours of groups can inform and contribute to explanations of individual aggression or altruism, the positive and negative power of peer pressure and responses to group behaviour.

Differences between individuals can also be ascribed to differences in intelligence and personality, but conceptions of intelligence and personality and their methods of assessment are contested. Differences between individuals, groups and cultures can be analysed in varied ways through different psychological perspectives informed by both classic and contemporary theories.

In this unit students analyse research methodologies associated with classic and contemporary theories, studies and models, consider ethical issues associated with the conduct of research and the use of findings, and apply appropriate research methods when undertaking their own investigations. The specific research methodologies and ethical principles considered in this unit are described in detail in the introduction to Unit 2 in the study design.

### **Unit 3: The conscious self**

This unit focuses on the study of the relationship between the brain and the mind through examining the basis of consciousness, behaviour, cognition and memory.

Advances in brain research methods have opened new ways to understanding the relationship between mind, brain and behaviour. Students study the structure and functioning of the human brain and nervous system, and explore the nature of consciousness and altered states of consciousness including sleep.

The brain continually receives and processes vast amounts of information from its internal and external environment. Memory involves the selective retention and retrieval of this information and it plays an important role in determining behaviour. Students consider the function of the nervous system in memory and investigate the ways in which information is processed, stored and utilised. They apply different theories of memory and forgetting to their everyday learning experiences.

Students analyse research methodologies associated with classic and contemporary theories, studies and models, consider ethical issues associated with the conduct of research and the use of the findings, and apply appropriate research methods when undertaking their own investigations. The specific research methodologies and ethical principles considered in this unit and in Unit 4 are described in detail in the introduction to Unit 3 in the study design.

## **Unit 4: Brain, behaviour and experience**

This unit focuses on the interrelationship between learning, the brain and its response to experiences, and behaviour. The overall quality of functioning of the brain depends on experience, and its plasticity means that different kinds of experience change and configure the brain in different ways. Students investigate learning as a mental process that leads to the acquisition of knowledge, development of new capacities and changed behaviours. Understanding the mechanisms of learning, the cognitive processes that affect readiness for learning, and how people learn informs both personal and social issues.

Students build on their conceptual understanding of learning to consider it as one of several important facets involved in a biopsychosocial approach to the analysis of mental health and illness. They consider different concepts of normality, and learn to differentiate between normal responses such as stress to external stimuli, and mental disorders. Students use a biopsychosocial framework – a conceptual model which includes psychological and social factors in addition to biological factors in understanding a person’s mental state – to explore the nature of stress and a selected mental disorder. The intent of the study is not that of diagnosis and treatment but to explore causes of mental illness, avenues of assistance and factors that promote mental wellbeing.

Students analyse research methodologies associated with classic and contemporary theories, studies and models, consider ethical issues associated with the conduct of research and the use of findings, and apply appropriate research methods when undertaking their own investigations. The specific research methodologies and ethical principles considered in this unit and in Unit 3 are described in detail in the introduction to Unit 3 in the study design.

## **Assessment**

### **Satisfactory Completion**

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

### **Levels of Achievement**

#### ***Units 1 and 2***

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

#### ***Units 3 and 4***

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

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

- Unit 3 School-assessed Coursework: 20 per cent
  - Unit 4 School-assessed Coursework: 20 per cent
  - End-of-year examination: 60 per cent
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## **RESIDENTIAL DRAFTING**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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## **SMALL BUSINESS**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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## **SPORT AND RECREATION -VCE VET**

An exciting complimentary program to the Physical Education Curriculum at Frankston High School, this VCE VET subject will be available to Year 10 and Year 11 and 12 students. This subject will be taught by Frankston High School staff and offers a contribution to the VCE ATAR in the form of a 'Study Score'.

Students will be required to study this course on a Wednesday afternoon from 1.30pm – 5.30pm. Selection of this subject will take the place of one of your elective subjects (if in Year 10) or as one of your program subjects (if in VCE) and shall incur a fee for participation.

Of special interest to many will be the fact that this course will be run at Monash University, Peninsula Campus at the new Monash Sport and Recreation Facility! Students will walk to this venue with their teacher on a Wednesday afternoon.

VCE VET Sport and Recreation is a subject which will give students a vocational certificate of achievement at the Certificate II level after successful participation for one year and the Certificate III will be awarded to those who complete the two year program. This is a two year course, and consequently, students in Year 10 who wish to gain full benefit from the program would do the first year of the course in Year 10 and complete the course in Year 11. If in Year 11 a student can also do this course as a VCE VET course and consequently do this program in Year 11 and Year 12 for ATAR contribution and VCE progression. If in Year 12 a student may choose to do the first year of this course to develop an understanding of the sport and recreation industry in readiness for career choice not long after. It must be noted that Year 12 students undertaking this program for only one year at the Year 12 level will not gain a contribution to their ATAR or a study score from this program. They will gain insight to the sports industry and a Certificate II in Sport and Recreation.

The VCE VET Sport and Recreation program aims to:

- Provide participants with the knowledge and skills to achieve competencies that will enhance their employment prospects in the sport and recreation or related industries.
- Enable participants to gain a recognised credential and to make a more informed choice of vocation or career path.

In the VCE VET Sport and Recreation course the following would be covered:

- Organise personal work priorities and development
- Apply first aid
- Operate application software packages
- Provide customer service
- Respond to emergency situations
- Follow occupational health and safety policies
- Conduct basic warm-up and cool-down programs
- Plan and conduct sport and recreation sessions
- Facilitate groups



- Analyse participation patterns
  - Provide public education on the use of resources
  - Undertake risk analysis of activities
  - Provide fitness orientation and health screenings
  - Develop and apply an awareness of specific populations to exercise delivery
  - Instruct and monitor fitness programs
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## **STUDIO ARTS**

### **STUDY SUMMARY**

#### **STUDIO ARTS 2010–2015**

**The accreditation period for VCE Studio Arts has been extended until 31 December 2015.**

**Please Note: This study summary comprises excerpts from the VCE Studio Arts Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website ([www.vcaa.vic.edu.au/Pages/vce/studies/studioarts/studioindex.aspx](http://www.vcaa.vic.edu.au/Pages/vce/studies/studioarts/studioindex.aspx)) to view the full accredited Study Design and other resources.**

#### **Rationale**

The creative nature of visual art provides individuals with the opportunity for personal growth, the expression of ideas and a process for examining identity. The exhibition of visual art offers an insight into the diverse interpretations of life and its experience by artists. Engagement with visual art facilitates creative thinking and the development of new ideas, it also supports connection and exchange within communities and beyond.

VCE Studio Arts encourages and supports students to recognise their individual potential as art makers and presents a guided process to assist their understanding and development of artmaking. The study establishes effective art practices through the application of an individual design process to assist the student's production of a folio of artworks.

The theoretical component of this study is an important basis for studio practice as it offers students a model for inquiry that can support their artmaking practices. Students' research focuses on the visual analysis of artworks and investigates how artists have interpreted sources of inspiration and influences in their artmaking. Students examine how artists have used materials, techniques and processes to create aesthetic qualities. They study how artists have developed styles and explored their cultural identity in their artwork. Students use this knowledge to inform their own processes to support their artmaking.

The foundation for the individual design process is established in Units 1 and 2 where students develop an understanding of how to source artistic inspiration related to their individual interests. Through the study of artists from different cultures, students recognise the diversity of aesthetic qualities and examine a range of interpretations of ideas and themes. In practical application students identify elements of inspiration for the development of their own creative artworks and explore a wide variety of materials and techniques.

In Unit 3 the student uses an exploration proposal to define an area for the development of a visual design process that is based on their individual concepts and ideas. The exploration proposal underpins the student's working process and is used as a reference for the development and reflection

of the design process. This enables the student to establish an understanding about how to generate a range of potential directions for the production of possible future artworks.

In Unit 4 students develop a creative folio of finished artworks based on selected potential directions. Students evaluate the use of materials, techniques and aesthetics in relation to the successful communication of their ideas in their finished artworks.

## **Structure**

The study is made up of four units:

Unit 1: Artistic inspiration and techniques

Unit 2: Design exploration and concepts

Unit 3: Studio production and professional art practices

Unit 4: Studio production and art industry contexts

Each unit contains between two and four areas of study.

## **Entry**

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

### **Unit 1: Artistic inspiration and techniques**

This unit focuses on using sources of inspiration and individual ideas as the basis for developing artworks and exploring a wide range of materials and techniques as tools for communicating ideas, observations and experiences through artmaking.

Students also explore and research the ways in which artists from different times and cultures have interpreted and expressed ideas, sourced inspiration and used materials and techniques in the production of artworks.

### **Unit 2: Design exploration and concepts**

This unit focuses on students establishing and using a design process to produce artworks. The design process includes the formulation and use of an individual approach to locating sources of inspiration, experimentation with materials and techniques, and the development of aesthetic qualities, directions and solutions prior to the production of artworks.

Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand the artists' ideas and how they have created aesthetic qualities and identifiable styles.

### **Unit 3: Studio production and professional art practices**

This unit focuses on the implementation of an individual design process leading to the production of a range of potential directions and solutions. Students develop and use an exploration proposal to define an area of creative exploration. They plan and apply a design process to explore and develop their individual ideas. Analysis of these explorations and the development of the potential directions is an intrinsic part of the design process to support the making of finished artworks in Unit 4.

For this study, the exploration proposal supports the student to identify a direction for their design process. The design process is individually determined by the student. It records trialling, experimenting, analysing and evaluating the extent to which their art practices successfully communicate their aims and ideas. From this process students can develop directions for the development of finished artworks in Unit 4.

The study of artists and their work practices and processes may provide inspiration for students' own approaches to artmaking. Students investigate and analyse the response of artists to a wide range of

stimuli, and examine their use of materials and techniques. They explore professional art practices of artists in relation to particular artworks and art form/s and identify the development of styles in artworks. Throughout their study of art processes, students also consider the issues that may arise from the use of other artists' work in the making of new artworks. Students are expected to visit at least two different exhibition spaces in their current year of study.

#### **Unit 4: Studio production and art industry contexts**

This unit focuses on the production of a cohesive folio of finished artworks. To support the creation of the folio, students present visual and written documentation explaining how selected potential directions generated in Unit 3 were used to produce the cohesive folio of finished artworks. These artworks should reflect the skilful application of materials and techniques, and the resolution of ideas and aesthetic qualities.

This unit also investigates aspects of artists' involvement in the art industry, focusing on a variety of exhibition spaces and the methods and considerations involved in the preparation, presentation and conservation of artworks. Students examine a range of environments for the presentation of artworks exhibited in contemporary settings. Students are expected to visit at least two different exhibition spaces in their current year of study.

#### **Assessment**

##### **Satisfactory Completion**

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

##### **Levels of Achievement**

###### ***Units 1 and 2***

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

###### ***Units 3 and 4***

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

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

- Unit 3 School-assessed Task: 33 per cent
- Unit 4 School-assessed Task: 33 per cent
- End-of-year examination: 34 per cent.

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## **TOURISM & EVENTS**

**Please see Mrs Janene Strange VET Co-ordinator for more details**

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# VISUAL COMMUNICATION DESIGN

## STUDY SUMMARY

### VCE VISUAL COMMUNICATION DESIGN 2013–2017

Please Note: This study summary includes excerpts from the VCE VISUAL Communication Design Study Design. The summary is not a substitute for the VCE Study Design. Users are advised to consult the VCAA website (<http://www.vcaa.vic.edu.au/vce/studies/visualcomm/vcommindex.html>) to view the full accredited Study Design and other resources.

#### **Scope of Study**

The Visual Communication Design study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design.

Visual communication design relies on drawing as the primary component of visual language to support the conception and visualisation of ideas. Consequently, the study emphasises the importance of developing a variety of drawing skills to visualise thinking.

Students use a design process to generate and develop visual communications. The design process provides a structure to organise design thinking and is shaped by considerations of aesthetics and functionality, as well as social, environmental and economic factors.

Students develop the skills to manipulate and organise design elements, design principles, selected media, materials and production methods when creating visual communications. Creative, critical and reflective thinking (design thinking) supports students to progress through and focus on the design process.

Throughout the study students explore manual and digital methods to develop and refine presentations.

Students investigate the work and practices of Australian and international designers selected from a variety of social, cultural, historical and contemporary contexts. Through their research they build an understanding of the important role of visual communication design within society. They are able to draw upon this knowledge as inspiration to support the development of their own visual communication design work. With practice, students gain confidence in using visual language and are supported to reflect on and critique their own and others' visual communications.

#### **Rationale**

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

Through the consideration of ethical and environmental sustainability issues, students are able to make informed choices that affect current and future practices. The study of Visual Communication Design can provide pathways to training and tertiary study in design and design-related studies, including graphic design, industrial and architectural design and communication design.

#### **Structure**

The study is made up of four units:

- Unit 1: Introduction to visual communication design
- Unit 2: Applications of visual communication design
- Unit 3: Design thinking and practice

## Unit 4: Design development and presentation

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

The Cross study specifications comprise study specific content applicable across Units 1 to 4. These specifications refer to definitions of visual communications, drawing methods and applications and the design process

### Entry

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

### 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. Students practise their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications.

Through experimentation and through exploration of the relationship between design elements and design principles, students develop an understanding of how design elements and principles affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design styles. This research introduces students to the broader context of the place and purpose of design. In this unit students are introduced to three stages of the design process detailed on pages 12 and 13: researching designers, generating ideas and applying design knowledge and drawing skills to develop concepts.

### 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. Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They investigate how typography and imagery are used in visual communication design. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field. Students develop an understanding of the design process detailed on pages 12 and 13 as a means of organising their thinking about approaches to solving design problems and presenting ideas. In response to a brief, students engage in the stages of research, generation of ideas and development of concepts to create visual communications.

### Unit 3: Design thinking and practice

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

Students use their research and analysis of visual communication designers to support the development of their own work. They establish a brief and apply design thinking skills through the design process detailed on pages 12 and 13. They identify and describe a client, two distinctly

different needs of that client, and the purpose, target audience, context and constraints relevant to each need.

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

#### **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. Having completed their brief and generated ideas in Unit 3, students continue the design process by developing and refining concepts for each need stated in the brief. They utilise a range of digital and manual two- and three-dimensional methods, media and materials. They investigate how the application of design elements and design principles creates different communication messages with their target audience. As students revisit stages to undertake further research or idea generation when developing and presenting their design solutions, they develop an understanding of the iterative nature of the design process. Ongoing reflection and evaluation of design solutions against the brief assists students with keeping their endeavours focused. Students refine and present two visual communications within the parameters of the brief. They reflect on the design process and the design decisions they took in the realisation of their ideas. They evaluate their visual communications and devise a pitch to communicate their design thinking and decision making to the client.

#### **Assessment**

##### **Satisfactory Completion**

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

#### **Levels of Achievement**

##### **Units 1 and 2**

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

##### **Units 3 and 4**

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of Visual Communication Design Visual students' level of achievement will be determined by School-assessed Coursework, a school-assessed Task and an end-of-year examination.

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

School-assessed Coursework:

Unit 3 Outcomes 1 and 2 and Unit 4 Outcome 3 25 per cent

School-assessed Task:

Unit 3 Outcome 3 and Unit 4 Outcomes 1 and 2 40 per cent

End-of-year examination:

Units 3 and 4 35 per cent