



# Senior Curriculum Handbook 2025



Beaumaris  
Secondary  
College



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## VCE Pathways

### General Curriculum (ATAR stream)

The Victorian Certificate of Education (VCE) is Victoria's senior secondary qualification. It opens pathways to university, higher-level TAFE or VET certificate courses, apprenticeships, traineeships and the workforce. Upon successfully completing this pathway, students will be eligible to receive an ATAR (Australian Tertiary Admissions Ranking).

#### Subjects

- > VCE English Study (four options)
- > VCE Maths Study (Year 11)
- > VCE Study
- > VCE Study
- > VCE Study
- > VCE Study
- > VCE Study (this may include a VET subject)

#### Future Pathways

- > University entrance
- > TAFE studies
- > Apprenticeship
- > Traineeship
- > Employment

### Vocational Major (Applied Learning)

The VCE Vocational Major is a 2-year applied learning program within the VCE. Students will develop academic and work-related skills, knowledge and confidence. It will prepare students for work and further education and training.

Upon successfully completing this pathway, students will graduate with the Victorian Certificate of Education, with the additional words 'Vocational Major'.

#### Subjects

- > VCE Literacy
- > VCE Numeracy
- > VCE Personal Development Skills
- > VCE Work Related Skills
- > VET – Vocational Education & Training
- > Structured Workplace Learning

#### Future Pathways

- > TAFE studies
- > Apprenticeship
- > Traineeship
- > Employment
- > University Entry (alternate pathway)



## VCE Information

### How to choose your VCE program

When choosing a program, you should consider the following:

- > Prerequisites for any courses/careers you may be considering
- > Relevant subjects to a particular course or career pathway you are considering
- > Your interest areas and strengths
- > A breadth of curriculum studies.

Students have a range of resources to support them when choosing their course and are also encouraged to speak with their GOAL mentor/Beyond teacher, Careers Counsellor or the Senior Curriculum Leader for further support. Students should be using this handbook to gain an understanding of the subjects offered and should also consult with teachers within the college to obtain further information where required.

To obtain your **VCE – General Curriculum Studies**, you must satisfactorily complete at least 16 units of study inclusive of an English study. This may also include a VET study.

Within the General Curriculum studies, the minimum English requirement is three units from the English group, including a Unit 3–4 sequence.

English units may be selected from:

- > Foundation English Units 1 and 2
- > English Units 1–4
- > English as an Additional Language Units 3 and 4
- > English Language Units 1–4
- > Literature Units 1–4.

To obtain your **VCE Vocational Major**, you must successfully finish at least 16 units, including:

- > 3 VCE VM Literacy or VCE English units (including a Unit 3–4 sequence)
- > 2 VCE VM Numeracy or VCE Mathematics units

- > 2 VCE VM Personal Development Skills units, and
- > 2 VET credits at Certificate II level or above (180 nominal hours).

You must also complete at least 3 other unit 3–4 sequences. This means 3 other full year studies at a Year 12 level.

### Satisfactory Completion of the VCE

Students are required to demonstrate their satisfactory understanding of key skills and knowledge in each subject and unit through a number of learning outcomes determined by VCAA. A student must satisfactorily achieve all outcomes within the Unit to gain successful completion of the Unit.

### Authentication

VCAA and Beaumaris Secondary College expect that all work completed and submitted by students is their own work. Students must follow specific guidelines for assessment, which include all work being submitted by a student is acknowledged as their own. Students must not submit any part of another student's work or pass on information about a SAC to another student. Students must acknowledge all sources of information through appropriate bibliography. A student found in breach of these guidelines can have a range of sanctions in place for the relevant assessment.

### Special Provision

Students who have special circumstances which may impact their ability to perform in their VCE program may be eligible for Special Provision. These may include scenarios such as chronic illness, trauma, learning difficulties. Where Special Provision is granted, the provision may include rest breaks, a scribe or reader or rescheduling of assessments, depending on the individual circumstances. It is important that families remain in communication with the college to inform them of any such circumstance so the college can manage this appropriately and efficiently to best support the student.





## VCE Terminology

### ATAR – Australian Tertiary Admission Rank

A student's ATAR is determined by VTAC using the student's scaled study scores. The ATAR is a percentile which ranks students for the purpose of tertiary selection.

### Authentication

The process of ensuring that work submitted by students for assessment is genuinely their own. Teachers monitor the completion of students' work.

### Career Education Funding (CEF)

A program, including course counselling, which assists students to make informed choices about possible future directions.

### DES – Derived Exam Score

An estimated score for a particular exam which may be used under Special Provision.

### EAL – English as an Additional Language

For VCE students who have studied less than seven years in English instruction. Students must meet VCAA criteria to enrol as an EAL student.

### GAT – General Achievement Test

All students undertaking a Unit 3 & 4 sequence must sit this three-hour test in June. GATs are used by VCAA to monitor school assessments and for the determination of a DES and may be used to assist with selection into tertiary courses.

### Learning Outcomes

What a student must know or be able to do by the time the Unit is complete.

### Part-time Apprenticeships & Traineeships

Students who receive training as part of their casual employment and receive credit towards their VCE.

### School Assessment Tasks (SATs)

Tasks done in class time to assess performance in Art, Media, Studio Arts Visual Design, Food Technology and Design and Technology studies.

### 'S' or 'N'

These letters mean 'S' for satisfactory (pass) or 'N' not satisfactory (not passed).

### School Assessed Coursework (SACs)

Work done, mainly in class time, to assess performance in Units 3 & 4. Set and marked by teachers according to VCAA (Victorian Curriculum & Assessment Authority) specifications.

### School Based Apprenticeships and Traineeships (SBAT)

Students undertake training and employment with an employer which is an integral part of the school learning program and study timetable.

### Semester

One half of the academic year. A unit of study lasts for one semester.

### Sequence

A sequence is a Unit 3 followed by Unit 4. One of the requirements for passing the VCE is the successful completion of four Unit 3 & 4 sequences.

### Special Consideration

Acknowledges that some students will encounter significant personal circumstances or learning difficulties which may disadvantage them in their studies. Special Consideration allows appropriate and relevant provisions to be put in place to support students throughout their VCE studies.

### Student Program

This is the total package of VCE and VET studies normally taken over two years.

### Study/Studies

Subject(s) English, Biology, Further Maths etc.

### Study Design

This is the curriculum documentation outlining all the required key skills and knowledge within a specific study.

### Study Score

This indicates how a student performed in relation to all other students in the state who took the study. It is calculated using the student's final scores for School-assessed Coursework, School-assessed Tasks, Externally-assessed Tasks and examinations for each study and is scored out of 50.



### **TAFE – Technical and Further Education**

TAFE Institutes offer post-secondary courses.

### **Unit**

Each VCE study is divided into 4 units. Each unit lasts one semester. Units 1 & 2 are normally at Year 11 level, and Units 3 & 4 are normally at Year 12 level.

### **VCAA – Victorian Curriculum and Assessment Authority**

The accrediting and authorising body responsible for overseeing the VCE.

### **VCE – Victorian Certificate of Education**

This is senior secondary certificate of education; it incorporates both a General Curriculum and Vocational Specialisation pathway.

### **VET – Vocation Education and Training**

This training is provided by Registered Training Organisations and provides a hands-on learning experience with the VCE studies in both General or Vocational Specialism pathways.

### **VCE/VET**

This refers to the expanding range of nationally recognised vocational studies now integrated within the VCE.

### **Vocational Major**

This is the applied vocational pathway within the VCE, this incorporates VET and structured workplace learning, Literacy, Numeracy, Work Related Skills and Personal Development Skills.

### **VTAC – Victorian Tertiary Admissions Centre**

The central office that administers the application process for places in tertiary courses, scholarships and the Special Entry Access Scheme at universities, TAFEs and independent tertiary colleges in Victoria.



# Algorithmics (offsite)

This is a Unit 3 & 4 Study only delivered offsite through the Centre for Higher Education Studies. Students need to make contact with the Senior Curriculum Leader if wanting to study this subject in Year 11 or 12 as a Unit 3/4. This subject is a Unit 3 and 4 of a Higher Education Scored Study (HESS) and is designed to the equivalent standard of a first-year university subject.

## VCAA Study Page

Students must undertake Unit 3 and Unit 4 as a sequence. All VCE HESS studies are benchmarked against comparable national and international tertiary curriculums.

The following list identifies important assumed mathematics knowledge that underpins the study design:

- > sets and set operations (complement, union, intersection)
- > substitution and transposition in linear and non-linear relations
- > the construction of tables of values from a given formula
- > development of formulas from word descriptions
- > sequences and linear relations generated by recursion
- > exponents and logarithms
- > the ability to produce and interpret numerical plots.

Most of this assumed knowledge is covered in VCE Mathematics Methods Units 1 and 2. Students must be currently enrolled in or have successfully completed VCE Mathematical Methods Units 1 and 2.

## Unit 3: Algorithmic problem solving

This unit focuses on how algorithms are used for solving complex problems. Algorithms are systematic problem-solving procedures that exist independently of computers. The study of algorithms lies at the heart of computer science and provides the formal foundation for computer programming. Algorithmic problem-solving is a technique that can be applied very broadly in addressing a wide range of complex practical problems.

In Area of Study 1, students develop and apply a range of knowledge and skills to model real-world information problems. In Area of Study 2, students learn how to design algorithms following a variety of simple algorithm design patterns and learn graph algorithms. In Area of Study 3, students apply the understanding developed in Areas of Study 1 and 2 to design a solution for a real-world problem that includes both a data representation and algorithm design. Area of Study 3 forms the first part of the School-assessed Task that is completed in Unit 4.

Students are not required to know about the implementation of abstract data types (ADTs), as the main focus of this study is on algorithmic thinking using ADTs rather than on the details of how ADTs are implemented.

## Unit 4: Principles of algorithmics

This unit focuses on the performance of algorithms and the scope and limitations of algorithms. Students develop the knowledge and skills to identify the resources that an algorithm needs to function efficiently and effectively. In Area of Study 1, students study the efficiency of algorithms and techniques for the formal analysis of algorithms and apply these techniques to an algorithm they designed in Unit 3 Area of Study 3. They also learn about soft limits of computability, namely, problems that can be solved in principle but that cannot be solved for practical problem sizes due to time or space constraints. In Area of Study 2, students learn about a variety of more sophisticated algorithm design patterns and apply their knowledge of these to construct an improved solution for the problem solved in Unit 3 Area of Study 3. In Area of Study 3, students learn about modern data-driven computation and the existence of hard limits of computability, such as problems for which solutions cannot be computed by any computational machinery.



# Applied Computing

Are you interested in...? Creating digital solutions to solve problems, managing threats to data, information and software security, understanding information systems including people, processes, data and digital systems, computational design and systems thinking.

Career pathways bullseye: [Computing](#), [Maths](#), [Metal Work and Engineering](#)

[VCAA Study Page](#)

## Unit 1: Applied computing

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In unit 1 students are introduced to the stages of the problem-solving methodology. Students focus on how data can be used within software tools such as databases and spreadsheets to create data visualisations, and the use of an object-oriented programming (OOP) language to develop a working software solution.

In Area of Study 1, as an introduction to data analytics, students respond to teacher-provided solution requirements, designs and data to develop data visualisations. They develop a solution that includes a database, spreadsheet(s) and data visualisations.

In Area of Study 2, students respond to solution requirements to design and develop a working software solution using an OOP language. They develop techniques for debugging and testing their software solution to ensure that it works as intended.

## Unit 2: Applied computing

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In unit 2 students focus on developing an innovative solution to a problem, need or opportunity that they have identified, and develop an understanding of network environments, cyber security risks, threats to networks and strategies to reduce the risks to data and information.

In Area of Study 1, students work collaboratively and select a topic of interest involving an emerging trend for further study to create an innovative solution. The innovative solution can be presented as a proof of concept, a prototype or a product. Students engage in all areas of the problem-solving methodology while developing this solution.

In Area of Study 2, as an introduction to cyber security, students investigate networks and the threats, vulnerabilities and risks to data and information. They propose and justify strategies to protect the security of data and information within a network.

## Unit 3: Software Development

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In unit 3 students apply the problem-solving methodology to develop working software modules using an object-oriented programming (OOP) language. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

In Area of Study 1, students respond to teacher-provided solution requirements and designs to develop a set of working software modules through the use of an OOP language. Students examine a set of requirements and a range of software design tools in order to apply specific features of an OOP language to create working software modules.

In Area of Study 2, students analyse an identified problem, need or opportunity, prepare a project plan, develop a software requirements specification and design a software solution. Area of Study 2 forms the first part of the School-assessed Task (SAT) that is completed in Unit 4, Area of Study 1.

## Unit 4: Software Development

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In unit 4, students focus on how the needs of individuals and organisations are met through the development of software solutions using an object-oriented programming (OOP) language and consider the cyber security risks to organisations as a result of insecure software development practices.

In Area of Study 1, students apply the problem-solving stages of development and evaluation to develop their preferred design generated in Unit 3, Area of Study 2 into a working software solution. They test and evaluate the solution and assess the project plan. Unit 4, Area of Study 1 forms the second part of the School-assessed Task (SAT).

In Area of Study 2, students examine the current software development practices of an organisation and the risks associated with insecure software development environments and practices. Students evaluate the current security practices and make recommendations to ensure software development environments and practices are secure.

# Art Making and Exhibiting

**Are you interested in...?** Art introduces students to the role and practices of artists. Students develop an understanding of the way artists work in a range of cultures and periods of time and the artists' perceptions. Students then develop their skills by undertaking the artistic process to produce original works.

Career pathways bullseye: [Art](#), [Industrial Arts](#), [Textiles and Design](#)

[VCAA Study Page](#)

## Unit 1: Explore, expand and investigate

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

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

## Unit 2: Understand, develop and resolve

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Students continue to research how artworks are made by investigating how artists use aesthetic qualities to represent ideas in artworks. They broaden their investigation to understand how artworks are displayed to audiences, and how ideas are represented to communicate meaning.

Students respond to a set theme and progressively develop their own ideas. Students learn how to develop their ideas using materials, techniques and processes, and art elements and art principles. They consolidate these ideas to plan and make finished artworks, reflecting on their knowledge and understanding of the aesthetic qualities of artworks. The planning and development of at least one finished artwork are documented in their Visual Arts journal.

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

Students begin to understand how exhibitions are planned and designed and how spaces are organised for exhibitions. They also investigate the roles associated with the planning of exhibitions and how artworks are selected and displayed in specific spaces.

## Unit 3: Collect, extend and connect

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

Students use their Visual Arts journal to record their art making. The Visual Arts journal demonstrates the students' exploration of contexts, ideas and subject matter and their understanding of visual language. They also document their exploration of and experimentation with materials, techniques and processes. From the ideas documented in their Visual Arts journal, students plan and develop artworks.

Students will visit an exhibition in either a gallery, museum, other exhibition space or site-specific space. Students must select one exhibition space for study in Unit 3 and a different exhibition space for study in Unit 4. Students research the exhibition of artworks in these exhibition spaces and the role a curator has in planning and writing information about an exhibition.

## Unit 4: Consolidate, present and conserve

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

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



# Biology

**Are you interested in...?** Living Things, Nature, Cells, Animals, Microscopes, Functioning of Animals and Plants, Genetics, Medicine, Disease, Ecosystems, Biotechnology, Evolution and Experimenting.

Career pathways bullseye: [Biology](#), [Health](#), [Environmental Sciences](#), [Rural Studies](#)    [VCAA Study Page](#)

## Unit 1: How does inheritance impact on diversity?

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

## Unit 2: How does inheritance impact on diversity?

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

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

## Unit 3: How do cells maintain life?

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

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

Students apply their knowledge of cellular processes through investigation of a selected case study, data analysis and/or a bioethical issue. Examples of investigation topics include, but are not limited to: discovery and development of the model of the structure of DNA; proteomic research applications; transgenic organism use in agriculture; use, research and regulation of gene technologies, including CRISPR-Cas9.

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

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Students consider the continual change and challenges to which life on Earth has been, and continues to be, subjected to. They study the human immune system and how the application of biological knowledge can be used to respond to bioethical issues and challenges related to disease.

Students consider how evolutionary biology is based on the accumulation of evidence over time. Students examine the evidence for relatedness between species and change in life forms over time using evidence from paleontology, structural morphology, molecular homology and comparative genomics.

Students demonstrate and apply their knowledge of how life changes and responds to challenges through investigation of a selected case study, data analysis and/or bioethical issue. Examples of investigation topics include, but are not limited to: deviant cell behaviour and links to disease; autoimmune diseases; allergic reactions; development of immunotherapy strategies; use and application of bacteriophage therapy; prevention and eradication of disease; vaccinations; bioprospecting for new medical treatments; trends, patterns and evidence for evolutionary relationships.

# Business Management

**Are you interested in...?** Owning and/or managing a business, entrepreneurship, innovation, global issues, social responsibility, marketing, human resources and business operations.

Career pathways bullseye: [Business Studies](#), [Construction](#), [Health](#), [Hospitality](#), [Retail](#)

[VCAA Study Page](#)

## Unit 1: Planning a business

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Businesses of all sizes are major contributors to the economic and social wellbeing of a nation. The ability of entrepreneurs to establish a business and the fostering of conditions under which new business ideas can emerge are vital for a nation's wellbeing. Taking a business idea and planning how to make it a reality are the cornerstones of economic and social development. Students explore the factors affecting business ideas and the internal and external environments within which businesses operate, as well as the effect of these on planning a business. They also consider the importance of the business sector to the national economy and social wellbeing.

## Unit 2: Establishing a business

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This unit focuses on the establishment phase of a business. Establishing a business involves compliance with legal requirements as well as decisions about how best to establish a system of financial record keeping, staff the business and establish a customer base. Students examine the legal requirements that must be met to establish a business. They investigate the essential features of effective marketing and consider the best way to meet the needs of the business in terms of staffing and financial record keeping. Students analyse management practices by applying key knowledge to contemporary business case studies from the past four years.

## Unit 3: Staffing a business

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Students explore the key processes and considerations for managing a business efficiently and effectively to achieve business objectives. Students examine different types of businesses and their respective objectives and stakeholders. They investigate strategies to manage both staff and business operations to meet objectives, and develop an understanding of the complexity and challenge of managing businesses. Students compare theoretical perspectives with current practice through the use of contemporary Australian and global business case studies from the past four years.

## Unit 4: Transforming a business

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Businesses are under constant pressure to adapt and change to meet their objectives. Students consider the importance of reviewing key performance indicators to determine current performance and the strategic management necessary to position a business for the future. Students study a theoretical model to undertake change and consider a variety of strategies to manage change in the most efficient and effective way to improve business performance. They investigate the importance of effective management and leadership in change management. Using one or more contemporary business case studies from the past four years, students evaluate business practice against theory.



# Chemistry

**Are you interested in...?** Relationship between materials and energy; design and composition of useful materials, the reactions and analysis of chemicals in water, the efficient production and use of energy and materials, and the investigation of carbon-based compounds in body tissues and useful materials.

Career pathways bullseye: [Chemistry](#)

[VCAA Study Page](#)

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

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The development and use of materials for specific purposes is an important human endeavour. Students investigate the chemical structures and properties of a range of materials, including covalent compounds, metals, ionic compounds and polymers. They are introduced to ways that chemical quantities are measured. They consider how manufacturing innovations lead to more sustainable products being produced for society through the use of renewable raw materials and a transition from a linear economy towards a circular economy.

Students conduct practical investigations involving the reactivity series of metals, separation of mixtures by chromatography, use of precipitation reactions to identify ionic compounds, determination of empirical formulas, and synthesis of polymers.

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

A student-directed research investigation explores how sustainability factors such as green chemistry principles and the transition to a circular economy are considered in the production of materials to ensure minimum toxicity and impacts on human health and the environment.

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

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Society is dependent on the work of chemists to analyse the materials and products in everyday use. Students analyse and compare different substances dissolved in water and the gases that may be produced in chemical reactions. They explore applications of acid-base and redox reactions in society.

Students conduct practical investigations involving the specific heat capacity of water, acid-base and redox reactions, solubility, molar volume of a gas, volumetric analysis, and the use of a calibration curve.

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

A student-adapted or student-designed scientific investigation and involves the generation of primary data and is related to the production of gases, acid-base or redox reactions, or the analysis of substances in water.

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

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The global demand for energy and materials is increasing with world population growth. Students investigate the chemical production of energy and materials. They explore how innovation, design and sustainability principles and concepts can be applied to produce energy and materials while minimising possible harmful effects of production on human health and the environment.

Students analyse and compare different fuels as energy sources for society, with reference to the energy transformations and chemical reactions involved, energy efficiencies, environmental impacts and potential applications. They explore food in the context of supplying energy in living systems. The purpose, design and operating principles of galvanic cells, fuel cells, rechargeable cells and electrolytic cells are considered when evaluating their suitability for supplying society's needs for energy and materials. They evaluate chemical processes with reference to factors that influence their reaction rates and extent. They investigate how the rate of a reaction can be controlled so that it occurs at the optimum rate while avoiding unwanted side reactions and by-products. Students conduct practical investigations involving thermochemistry, redox reactions, electrochemical cells, reaction rates and equilibrium systems.

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

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

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

# Economics

**Are you interested in...?** Understanding the world around you – global issues, markets, consumer behaviour, government actions, data analysis, problem solving, debating, environmental issues, inequality and sustainability.

Career pathways bullseye: [Economics](#), [Business Studies](#), [Community Services](#), [Geography](#), [Social Sciences](#)

[VCAA Study Page](#)

## Unit 1: Economic decision-making

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Economics is a dynamic and constantly evolving field of social science, which looks at the way humans behave and the decisions made to meet the needs and wants of society. Students explore their role in the economy, how they interact with businesses, and the role of the government in the economy. They investigate the motivations behind consumer and business behaviour, and they examine the role of markets and use demand and supply models to explain changes in prices and quantities traded. Students also consider the insights of behavioural economics and how those insights contrast with the traditional model of consumer behaviour.

## Unit 2: Economic issues and living standards

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A core principle of economics is maximising the living standards of society and, therefore, economic activity is a key consideration. Students consider the link between economic activity and economic growth and investigate the importance of economic growth in raising living standards. They evaluate the benefits and costs of continued economic growth and consider the extent to which our current measurements of living standards are adequate. Students also undertake an applied analysis of two contemporary economic issues from a local, national and international perspective. They investigate relevant economic factors and use the tools of data collection, analysis, synthesis and evaluation to examine each issue through an economics lens.

## Unit 3: Australia's living standards

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Students investigate the role of the market in allocating resources and examine the factors that affect the price and quantity traded for a range of goods and services. They develop an understanding of the key measures of efficiency and how market systems might result in efficient outcomes. Students consider contemporary issues to explain the need for government intervention in markets and why markets might fail to maximise society's living standards. They investigate the factors that affect the level of aggregate demand and aggregate supply in the economy and apply theories to explain how changes in these variables might affect achievement of domestic macroeconomic goals and living standards. Students also investigate the importance of international economic relationships and the effect of these on Australian living standards. They analyse how international transactions are recorded, and examine how economic factors might affect the value of the exchange rate, the terms of trade and Australia's international competitiveness.

## Unit 4: Managing the economy

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This unit focuses on how policymakers, including the Australian Government and the Reserve Bank of Australia (RBA), can utilise a wide range of policy instruments to achieve domestic macroeconomic goals and affect living standards. Students develop an understanding of how the Australian Government can alter the composition of budgetary outlays and receipts to directly and indirectly affect the level of aggregate demand in the economy. They examine the role of the RBA with a focus on its responsibility to conduct monetary policy, and they consider how the tools of monetary policy can affect interest rates, aggregate demand and the achievement of the domestic macroeconomic goals. Students also evaluate the strengths and weaknesses of the aggregate demand policies, and they consider how the Australian Government utilises selected aggregate supply policies to expand the productive capacity of the economy and improve Australia's international competitiveness.



# English or English as an Additional Language (EAL)

Successful completion of a student's VCE is dependent on passing a minimum of three (3) units of English studies.

**NOTE:** There are specific requirements to be eligible to study EAL, please speak to the Senior Curriculum Leader before the end of Term 3 this year.

As part of the achievement of the VCE students must satisfactorily complete a minimum of three (3) units from the English group of subjects, this includes a Unit 3 & 4 sequence. English may be selected from English Units 1 - 4, English as an Additional Language Units 1-4, English Language Units 1-4, Literature Units 1-4.

**Are you interested in...?** engaging with texts from the contemporary world and from the past, and using texts from Australia and from other cultures, you will become confident, articulate and critically aware communicators and further develop a sense of yourself, the world and your place within it. English helps equip you for participation in a democratic society and the global community.

Career pathways bullseye: [English](#), [Media Studies](#), [Social Sciences](#)

[VCAA Study Design](#)

## Unit 1: Reading & exploring texts

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

Students' exploration of texts involves understanding and appreciating the role of vocabulary, text structures and language features in creating story and meaning. They contemplate the ways a text can present and reflect human experiences, and how stories or aspects of stories resonate with their own memories and lives. Students are encouraged to share their experience and understanding of the world, and make connections with key ideas, concerns and tensions presented in a text. They also explore the cultural, social and historical values embedded in the text, and can compare these values with their own. It is through these moments of connection that students engage more closely with the reading experience, and draw parallels with their own observations of the world.

## Unit 2: Reading & exploring texts

Students develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing. Students read or view a text, engaging with the ideas, concerns and tensions, and recognise ways vocabulary, text structures, language features and conventions of a text work together to create meaning. Through discussions about representations in a text, they examine the ways readers understand text considering its historical context, and social and cultural values. They also explore the text through the prism of their own cultural knowledge, experiences and understanding of the world, and extend their observations into analytical and abstracted explorations.

Developing analytical writing about a text provides students with opportunities to build skills to discuss ideas, apply appropriate metalanguage, integrate evidence from a text to support key points, and explore organisational structures such as formal essays.

### Unit 3: Reading and responding to texts

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Students apply reading and viewing strategies to critically engage with a text, considering its dynamics and complexities and reflecting on the motivations of its characters. They analyse the ways authors construct meaning through vocabulary, text structures, language features and conventions, and the presentation of ideas. They are provided with opportunities to understand and explore the historical context, and the social and cultural values of a text, and recognise how these elements influence the way a text is read or viewed, is understood by different audiences, and positions its readers in different ways.

Sustained analytical writing about a text provides students with opportunities to further develop skills to engage with and challenge ideas, to refine their application of appropriate metalanguage, to integrate evidence from a text to support key points, and to improve their use of organisational structures such as formal essays. Through participation in discussion, students test their thinking, clarify ideas and form views about a text that can be further developed in their writing.

All students are provided with opportunities to practise and extend their writing about texts, and EAL students are provided with a contextual framing of the text through a listening task that explores historical, cultural and/or social values relevant to the text (such as an interview, episode of a podcast, lecture or presentation). Prior to summative assessment, they are given time and support to extend their writing through reflection, editing and feedback.

Students study one text selected from the annual VCAA *VCE English and EAL Text List*. This text must be of a different text type from that which is selected for study in Unit 4.

### Unit 4: Reading and responding to texts

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Students further sharpen their skills of reading and viewing texts, developed in the corresponding area of study in Unit 3. Students consolidate their capacity to critically analyse texts and deepen their understanding of the ideas and values a text can convey.

Students apply reading and viewing strategies to engage with a text, and discuss and analyse the ways authors construct meaning in a text through the presentation of ideas, concerns and conflicts, and the use of vocabulary, text structures and language features. They engage with the dynamics of a text and explore the explicit and implicit ideas and values presented in a text. They recognise and explain the ways the historical context, and social and cultural values can affect a reader, and analyse how these social and cultural values are presented. They establish how these values can influence the way a text is read or viewed, can be understood by different audiences, and can position readers in different ways.

Sustained analytical writing about a text provides students with opportunities to refine skills to engage with and challenge ideas, to confidently apply appropriate metalanguage, to deftly integrate evidence from a text to support key points, and to enhance their use of organisational structures such as formal essays. Through participation in discussion, students test their thinking, clarify ideas and form views about a text that are clearly developed in their writing.

Students are provided with opportunities to practise and extend their writing about texts. Prior to summative assessment, they are given time and support to extend their writing through reflection, editing and feedback.

Students study one text selected from the annual *VCE English and EAL Text List*. The text selected for study must be of a different text type from that which is selected for study in Unit 3.



# English Language

**Are you interested in...?** The ways in which language is used by individuals and groups and reflects our thinking and values. Learning about language helps us to understand ourselves, the groups we identify with, and the society we inhabit. You examine the nature of language, specifically the sounds, words, structure and meaning of language.

Career pathways bullseye: [English](#), [Languages](#), [Social Sciences](#)

[VCAA Study Design](#)

For Units 3 & 4, students will benefit from having studied English Language in Year 11.

## Unit 1: Language and communication

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Language is an essential aspect of human behaviour and the means by which individuals relate to the world, to each other and to the communities of which they are members. Students consider the ways language is organised so that its users have the means to make sense of their experiences and to interact with others. Students explore the various functions of language and the nature of language as an elaborate system of signs and conventions. The relationship between speech and writing as the dominant language modes and the impact of situational and cultural contexts on language choices are also considered. Students investigate children's ability to acquire language and the stages of language acquisition across a range of subsystems.

## Unit 2: Language change

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Students focus on language change. Languages are dynamic and language change is an inevitable and continuous process. Students consider factors contributing to change in the English language over time and factors contributing to the spread of English. They explore texts from the past and from the present and consider how language change affects each of the subsystems of language – phonetics and phonology, morphology, lexicology, syntax, discourse, and pragmatics and semantics. Students also consider how attitudes to language change can vary markedly.

In addition to developing an understanding of how English has been transformed, they consider how the global spread of English has led to a diversification of the language and to English now being used by more people as an additional or a foreign language than as a first language. Students investigate how contact between English and other languages has led to the development of geographical and ethnic varieties but has also hastened the decline of the languages of indigenous peoples. They consider the cultural repercussions of the spread of English.

## Unit 3: Language variation and purpose

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Students investigate English language in contemporary Australian settings. They consider language as a means of interaction, exploring how through written and spoken texts we communicate information, ideas, attitudes, prejudices and ideological stances.

Students examine the features of formal and informal language in both spoken and written language modes; the grammatical and discourse structure of language; the

choice and meanings of words within texts; how words are combined to convey a message; the role played by the functions of language when conveying a message; and the particular context in which a message is conveyed. Students learn how to describe the interrelationship between words, sentences and text and explore how texts present message and meaning.

Students learn that language choices are always influenced by the function, register and tenor, and the situational and cultural contexts in which they occur. They learn that the situational elements of a language exchange, such as the field, language mode, setting and text type, influence language choice, as do the values, attitudes and beliefs held by participants and the wider community. Students learn how speakers and writers select language features and how this in turn establishes the degree of formality within a discourse. They learn how language can be indicative of relationships, power structures and purpose through the choice of a particular variety of language and through the ways in which language varieties are used in processes of inclusion and exclusion.

## Unit 4: Language variation and identity

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Students focus on the role of language in establishing and challenging different identities. There are many varieties of English used in contemporary Australian society, influenced by the intersection of geographical, cultural and social factors. Standard Australian English is the variety that is granted prestige in contemporary Australian society and, as such, has a central role in the complex construct of a national identity. However, the use of language varieties can play important roles in constructing users' social and cultural identities. Students examine texts to explore the ways different identities are imposed, negotiated and conveyed.

Students explore how our sense of identity evolves in response to situations and experiences, and is influenced by how we see ourselves and how others see us. Through our language we express ourselves as individuals and signal our membership of particular groups. Students explore how language can distinguish between 'us' and 'them', creating solidarity and reinforcing social distance.

# (English) Literature

**Are you interested in...?** Literature provides opportunities for you to develop your awareness of other people, places and cultures and explore the way texts represent the complexity of human experience. You will develop an understanding and appreciation of literature, and an ability to reflect critically on the aesthetic and intellectual aspects of texts such as poetry, short stories, novels and film. **Career pathways bullseye:** [English](#), [Media Studies](#), [Social Sciences](#) [VCAA Study Design](#)

For Units 3 & 4, students will benefit from having studied English Literature in Year 11.

## Unit 1: Reading practices & Literary movements

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Students consider how language, structure and stylistic choices are used in different literary forms and types of text. They consider both print and non-print texts, reflecting on the contribution of form and style to meaning. Students reflect on the degree to which points of view, experiences and contexts shape their own and others' interpretations of text. Students closely examine the literary forms, features and language of texts. They begin to identify and explore textual details, including language and features, to develop a close analysis response to a text. Students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Examples of these groupings include literary movements and/or genres such as modernism, epic, tragedy and magic realism, as well as more popular, or mainstream, genres and subgenres such as crime, romance and science fiction. Students explore texts from the selected movement or genre, identifying and examining attributes, patterns and similarities that locate each text within that grouping. Students engage with the ideas and concerns shared by the texts through language, settings, narrative structures and characterisation, and they experiment with the assumptions and representations embedded in the texts.

## Unit 2: Voices of country & Text in its context

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Students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation. Students examine representations of culture and identity in Aboriginal and Torres Strait Islander peoples' texts and the ways in which these texts present voices and perspectives that explore and challenge assumptions and stereotypes arising from colonisation. Students acknowledge and reflect on a range of Australian views and values (including their own) through a text(s). Within that exploration, students consider stories about the Australian landscape and culture. Students focus on the text and its historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text. Students explore the text to understand its point of view and what it reflects or comments on. They identify the language and the representations in the text that reflect the specific time period and/or culture, its ideas and concepts.

## Unit 3: Adaptations, transformations & interpretations

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Students focus on how the form of a text contributes to its meaning. Students explore the form of a set text by constructing a close analysis of that text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaptation. By exploring an adaptation, students also consider how creators of adaptations may emphasise or minimise viewpoints, assumptions and ideas present in the original text. Students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text. Students first develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language. These student interpretations should consider the historical, social and cultural context in which a text is written and set. Students also consider their own views and values as readers. Students then explore a supplementary reading that can enrich, challenge and/or contest the ideas and the views, values and assumptions of the set text to further enhance the students' understanding.

## Unit 4: Creative responses & Analysis of texts

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Students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. They learn how authors develop representations of people and places, and they develop an understanding of language, voice, form and structure. Students draw inferences from the original text in order to create their own writing. In their adaptation of the tone and the style of the original text, students develop an understanding of the views and values explored. Students develop an understanding of the various ways in which authors craft texts. They reflect critically on the literary form, features and language of a text, and discuss their own responses as they relate to the text, including the purpose and context of their creations. Students focus on a detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the ways specific passages in a text contribute to their overall understanding of the whole text. Students consider literary forms, features and language, and the views and values of the text. They write expressively to develop a close analysis, using detailed references to the text.

# Extended Investigation (offsite)

This is a Unit 3 & 4 study only delivered offsite through the Centre for Higher Education Studies. Students need to make contact with the Senior Curriculum Leader if wanting to study this subject in Year 11 or 12 as a Unit 3/4.

**Are you interested in...?** Investigation of ideas, developing research questions or ideas, conducting independent research, explore, justify and defend research findings in both written and oral settings.

**Career pathways bullseye:** [Biology](#), [Health](#), [Environmental Sciences](#), [Rural Studies](#), [Media Studies](#), [Social Sciences](#), [History](#), [Chemistry](#), [Metal Work and Engineering](#)

[VCAA Study Design](#)

## Unit 3: Designing and conducting research

In this unit, students develop and practice critical thinking skills, increasing their understanding of different modes of thinking, the elements of argument and the qualities of valid reasoning. Students learn to evaluate the arguments of others and apply the same critical approach to their own developing ideas. They consider sources of possible distortion and bias in the design and conduct of research.

As they consider possible questions for investigation, students explore the scope, nature and purpose of research, the value of various research methods and the principles of ethical conduct. They conduct a review of relevant research literature and identify a specific question. They identify appropriate sources of data and methods of data collection. Details of the proposed research question and methods for collecting data are formally lodged with the VCAA during Term 1 on a date published annually.

Students begin to undertake their investigation, conducting initial research and refining their understanding of likely challenges in managing their project to a conclusion. They may make adjustments in scope and focus in response to a better understanding of issues related to the question.

Throughout the unit, students use an Extended Investigation Journal to complete exercises in thinking critically, and to document their work in developing a question, reviewing research and receiving feedback and input from others. They learn and apply the skills of project management, tracking their progress towards key milestones.

## Unit 4: Completing and reporting research

In this unit, students further develop their thinking skills by interpreting, analysing and evaluating arguments. They apply these skills to the research reported by others and to the conduct of their own investigation and the presentation of its outcomes.

Students are supported and monitored as they undertake and complete their investigation, managing its scope and meeting the milestones established in their research plan.

Students recognise the key features of sound and well-presented arguments in research reports, such as clarity, precision and coherence, and aim for these qualities in their own reporting. They prepare a substantial written report that presents the details of their investigation and its methods and findings in response to the research question. They adhere to the conventions of academic writing and incorporate correct and complete citations, attributions and bibliographic referencing. Their report includes critical evaluation of the investigation, the research methods used, and the quality and range of evidence gathered. Information is provided about the resolution of any ethical issues that arose during the investigation.

Students prepare and deliver an oral presentation that explains their investigation and its findings to an educated, non-specialist audience. They show the relationship between their conclusions and the research question and explain and evaluate their selection of methods. They respond to questions and challenges, reflecting critically on their findings and justifying them where required.

The Extended Investigation Journal continues to be used to complete exercises in thinking critically, to document the progress and completion of the investigation, and to record assistance received from consultation with supervising teachers, mentors and others.



# Food Studies

**Are you interested in...?** Exploring food from a wide range of perspectives. Past and present patterns of eating, Australian and global food production systems and the many physical and social functions and roles of food. Researching the economic, environmental and ethical dimensions of food and critically evaluating information, marketing messages and new trends.

Career pathways bullseye: [Food Studies](#), [Biology](#), [Health](#), [Home Economics](#), [Hospitality](#)

[VCAA Study Page](#)

## Unit 1: Food origins

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Students focus on food from historical and cultural perspectives, and investigate the origins and roles of food through time and across the world. In Area of Study 1 students explore how humans have historically sourced their food, examining the general progression from hunter-gatherer to rural-based agriculture, to today's urban living and global trade in food. Students consider the origins and significance of food through inquiry into one particular food-producing region of the world.

In Area of Study 2 students focus on Australia. They look at Australian indigenous food prior to European settlement and how food patterns have changed since, particularly through the influence of food production, processing and manufacturing industries and immigration. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of an Australian cuisine.

Students consider the influence of innovations, technologies and globalisation on food patterns. Throughout this unit they complete topical and contemporary practical activities to enhance, demonstrate and share their learning with others.

## Unit 2: Food makers

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

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

## Unit 3: Food in daily life

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Students investigate the many roles and everyday influences of food. Area of Study 1 explores the science of food: our physical need for it and how it nourishes and sometimes harms our bodies. Students investigate the science of food appreciation, the physiology of eating and digestion, and the role of diet on gut health. They analyse the scientific evidence, including nutritional rationale, behind the healthy eating recommendations of the Australian Dietary Guidelines and the Australian Guide to Healthy Eating (see [www.eatforhealth.gov.au](http://www.eatforhealth.gov.au)), and develop their understanding of diverse nutrient requirements.

Area of Study 2 focuses on influences on food choices: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments. Students inquire into the role of food in shaping and expressing identity and connectedness, and the ways in which food information can be filtered and manipulated. They investigate behavioural principles that assist in the establishment of lifelong, healthy dietary patterns.

## Unit 4: Food issues, challenges and futures

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Students examine debates about Australia's food systems as part of the global food systems and describe key issues relating to the challenge of adequately feeding a rising world population. Students focus on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. They also consider the relationship between food security, food sovereignty and food citizenship. Students consider how to assess information and draw evidence-based conclusions, and apply this methodology to navigate contemporary food fads, trends and diets. They practise and improve their food selection skills by interpreting food labels and analysing the marketing terms used on food packaging.

Students focus on issues about the environment, climate, ecology, ethics, farming practices, including the use and management of water and land, the development and application of innovations and technologies, and the challenges of food security, food sovereignty, food safety and food wastage. They research a selected topic, seeking clarity on current situations and points of view, considering solutions and analysing work undertaken to solve problems and support sustainable futures. The focus of this unit is on food issues, challenges and futures in Australia.

# Geography

**Are you interested in...?** Exploring, analysing understanding characteristics that make up our world, fieldwork, investigations to explain why our world is the way it is and what made it that way and human impact on the environment.

Career pathways bullseye: [Environmental Sciences](#), [Social Sciences](#), [Rural Studies](#)

[VCAA Study Page](#)

## Unit 1: Hazards & disasters

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Students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them by people. Hazards include a wide range of situations including those within local areas, such as fast moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease. Students examine the processes involved with hazards and hazard events, including their causes and impacts, human responses to hazard events and interconnections between human activities and natural phenomena.

This unit investigates how people have responded to specific types of hazards, including attempts to reduce vulnerability to, and the impact of, hazard events. Types of hazards are commonly classified by their causes: *geological* (or *geophysical*) hazards include volcanic activity, erosion, earthquakes, tsunamis, landslides and avalanches; *hydro-meteorological* (weather, climate, water) hazards include droughts, floods, storms, storm surges and bushfires; *biological hazards* include infectious diseases such as HIV/AIDS and malaria, animal transmitted diseases, water borne diseases, and plant and animal invasion such as blackberries and cane toads in Australia; *technological hazards* are human induced and exacerbated hazards including oil spills, air pollution, radiation leaks, flooding primarily caused by land clearances, epidemics caused by poor living conditions and hazards caused by current climate change such as rising sea levels or increased intensification of weather events.

## Unit 2: Tourism: issues & challenges

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Students investigate the characteristics of tourism, with particular emphasis on where it has developed, its various forms, how it has changed and continues to change and its impacts on people, places and environments. They select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. The study of tourism at local, regional and global scales emphasises the interconnection within and between places. For example, the interconnections of climate, landforms and culture help determine the characteristics of a place that can prove attractive to tourists. There is an interconnection between places tourists originate from and their destinations through the development of communication and transport infrastructure, employment, together with cultural preservation and acculturation. The growth of tourism at all scales requires careful management to ensure environmentally sustainable and economically viable tourism.

## Unit 3: Changing the land

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This unit focuses on two investigations of geographical change: change to land cover and change to land use. Land cover includes biomes such as forest, grassland, tundra, bare lands and wetlands, as well as land covered by ice and water. Land cover is the natural state of the biophysical environment developed over time as a result of the interconnection between climate, soils, landforms and flora and fauna and, increasingly, interconnections with human activity.

Students investigate two major processes that are changing land cover in many regions of the world: melting glaciers and ice sheets, and deforestation. They investigate the distribution and causes of the two processes.

At a local scale students investigate land use change using appropriate fieldwork techniques and secondary sources. They investigate the processes of change, the reasons for change and the impacts of change. Students undertake fieldwork and produce a fieldwork report.

## Unit 4: Human population – trends & issues

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Students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world.

Students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. The growth of the world's population from 2.5 billion in 1950 to over 7 billion since 2010 has been on a scale without parallel in human history. Much of the current growth is occurring within developing countries while the populations in many developed countries are either growing slowly or are declining.

Population movements such as voluntary and forced movements over long or short terms add further complexity to population structures and to environmental, economic, social, and cultural conditions. Many factors influence population change, including the impact of government policies, economic conditions, wars and revolution, political boundary changes and hazard events.

Students investigate the interconnections between the reasons for population change. They evaluate strategies developed in response to population issues and challenges.

# Health and Human Development

**Are you interested in...?** Health and wellbeing, youth perspectives, population groups, health promotion, human development, global health, the United Nations and the human lifespan.

Career pathways bullseye: [Community Services](#), [Food Studies](#), [Health](#), [Social Sciences](#)

[VCAA Study Page](#)

## Unit 1: Understanding health & wellbeing

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Students explore health and wellbeing as a concept with varied and evolving perspectives and definitions. They come to understand that it occurs in many contexts and is subject to a wide range of interpretations, with different meanings for different people. As a foundation to their understanding of health, students investigate the World Health Organization's (WHO) definition and other interpretations. They also explore the fundamental conditions required for health as stated by the WHO, which provide a social justice lens for exploring health inequities.

In this unit, students identify perspectives relating to health and wellbeing, and inquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islander Peoples. Students look at multiple dimensions of health and wellbeing, the complex interplay of influences on health outcomes and the indicators used to measure and evaluate health status. With a focus on youth, the unit equips students to consider their own health as individuals and as a cohort. They build health literacy by interpreting and using data in a research investigation into one youth health focus area, and by investigating the role of food.

## Unit 2: Managing health & development

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Students investigate transitions in health and wellbeing, and human development, from lifespan and societal perspectives. They explore the changes and expectations that are integral to the progression from youth to adulthood. Students apply health literacy skills through an examination of adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes.

Students explore health literacy through an investigation of the Australian healthcare system from the perspective of youth and analyse health information. They investigate the challenges and opportunities presented by digital media and consider issues surrounding the use of health data and access to quality health care.

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

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Students look at health and wellbeing, disease and illness as being multidimensional, dynamic and subject to different interpretations and contexts. They explore health and wellbeing as a global concept and take a broader approach to inquiry. Students consider the benefits of optimal health and wellbeing and its importance as an individual and a collective resource. They extend this to health as a universal right, analysing and evaluating variations in the health status of Australians.

Students focus on health promotion and improvements in population health over time. Through researching health improvements and evaluating successful programs, they explore various public health approaches and the interdependence of different models. While the emphasis is on the Australian health system, the progression of change in public health approaches should be seen within a global context.

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

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Students examine health and human development in a global context. They use data to investigate health status and human development in different countries, exploring factors that contribute to health inequalities between and within countries, including the physical, social and economic conditions in which people live. Students build their understanding of health in a global context through examining changes in health status over time and studying the key concept of sustainability. They consider the health implications of increased globalisation and worldwide trends relating to climate change, digital technologies, world trade, tourism, conflict and the mass movement of people.

Students consider global action to improve health and human development, focusing on the United Nations' (UN's) Sustainable Development Goals (SDGs) and the priorities of the World Health Organization (WHO). They also investigate the role of non-government organisations and Australia's overseas aid program. Students evaluate the effectiveness of health initiatives and programs in a global context and reflect on their own capacity to act.



# History – Modern/Revolutions

Are you interested in...? Writing, investigating, exploring, and understanding how the world came to be what it is today.

Career pathways bullseye: [Art](#), [Business Studies](#), [Economics](#), [English](#), [History](#), [Social Sciences](#)

[VCAA Study Design](#)

## Unit 1: Modern History – Change and conflict

Students investigate the nature of social, political, economic and cultural change in the later part of the 19th century and the first half of the 20th century. Exploring the significant events, ideas, individuals and movements that shaped the social, political, economic and technological conditions and developments that have defined the modern world. The late 19th century marked a challenge to existing empires, alongside growing militarism and imperialism. Empires continued to exert their powers as they competed for new territories, resources and labour across Asia-Pacific, Africa and the Americas, contributing to tremendous change. World War One was a significant turning point in modern history. It represented a complete departure from the past and heralded changes that were to have significant consequences for the rest of the twentieth century. The post-war treaties ushered in a period where the world was, to a large degree, reshaped with new borders, movements, ideologies and power structures and led to the creation of many new nation states. The period after World War One, in the contrasting decades of the 1920s and 1930s, was characterised by significant social, political, economic, cultural and technological change. In 1920 the League of Nations was established, but despite its ideals about future peace, subsequent events and competing ideologies would contribute to the world being overtaken by war in 1939. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism.

## Unit 2: Modern History – The changing world order

Students investigate the nature and impact of the Cold War and challenges and changes to social, political and economic structures and systems of power in the second half of the twentieth century and the first decade of the twenty-first century. The establishment of the United Nations (UN) in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948 was the first global expression of human rights. By 1989 the USSR began to collapse. The fall of the Berlin Wall was a significant turning point in modern history. The continuation of moves towards decolonisation led to independence movements in former colonies in Africa, the Middle East, Asia and the Pacific. New countries were created and independence was achieved through both military and diplomatic means.

The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism

and environmental movements, as well as new political partnerships, such as the UN, European Union, APEC, OPEC, ASEAN and the British Commonwealth of Nations.

The beginning of the twenty-first century heralded both a changing world order and further advancements in technology and social mobility on a global scale. However, terrorism remained a major threat, influencing politics, social dynamics and the migration of people across the world. The attack on the World Trade Centre on 11 September, 2001 was a significant turning point for what became known as the war on global terror and shaped the first decade of the twenty-first century, including the wars in Afghanistan and Iraq. The Global Financial Crisis challenged and contributed to some change in the social, political and economic features and structures.

## Unit 3 & 4: Revolutions

Students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point in the collapse and destruction of an existing political order which results in extensive change to society. Revolutions are caused by the interplay of events, ideas, individuals and popular movements, and the interplay between the political, social, cultural, economic and environmental conditions. Their consequences have a profound effect on the political and social structures of the post-revolutionary society. Revolution is a dramatically accelerated process whereby the new regime attempts to create political, social, cultural and economic change and transformation based on the regime's ideology.

Change in a post-revolutionary society is not guaranteed or inevitable and continuities can remain from the pre-revolutionary society. The implementation of revolutionary ideology was often challenged internally by civil war and externally by foreign threats. These challenges can result in a compromise of revolutionary ideals and extreme measures of violence, oppression and terror. Students construct an argument about the past using historical sources (primary sources and historical interpretations) as evidence to analyse the complexity and multiplicity of the causes and consequences of revolution, and to evaluate the extent to which the revolution brought change to the lives of people. Students analyse the different perspectives and experiences of people who lived through dramatic revolutionary moments, and how society changed and/or remained the same. Students use historical interpretations to evaluate the causes and consequences of revolution and the extent of change instigated by the new regime.

- > The French Revolution
- > The Russian Revolution

# Languages - French

**Are you interested in...?** Learning a new culture, history and way of life. Learning a new language and its grammatical intricacies. Being equipped to travel to Francophone countries and being able to interact with the locals in their native language. Improving skills in lateral thinking, problem solving, nonverbal intelligence, English, Maths and memorisation.

Career pathways bullseye: [Languages](#) [VCAA Study Page](#)

Students choosing French will benefit from previous studies in this language in the preceding year.

## Unit 1: Communicating language & culture of French-speaking communities

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Students develop an understanding of the language and culture/s of French-speaking communities through the study of three topics from the three themes of the students' individual world, French-speaking Communities and the world around us. Each area of study focuses on a different topic and builds a specific language skill to communicate in either speaking, listening, reading or writing in French. Topics include, family and relationships, living a balanced lifestyle and travel and student exchanges in francophone countries. Students access and share useful information on the topics through French and consolidate and extend vocabulary and grammar knowledge and language skills. They focus on analysing cultural products or practices including visual, spoken or written texts. Cultural products or practices are drawn from a diverse range of texts, activities and creations. These may include the following: stories, poems, plays, novels, songs, films, photographs, artworks, architecture, technology, food, clothing, sports and festivals. Students apply acquired knowledge of French culture and language to new contexts. Students reflect on the interplay between language and culture, and its impact on the individual's language use in specific contexts and for specific audiences.

## Unit 2: Analysing language & culture of French-speaking communities

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Students develop an understanding of aspects of language and culture through the study of the following topics: social media and technology, school life and education in France, and French Culture: arts, music and entertainment. Each area of study focuses on a different topic and builds a specific language skill to communicate in either speaking, listening, reading or writing in French. Students analyse visual, spoken and written texts. They access and share useful information on the topics through French and consolidate and extend vocabulary, grammar knowledge and language skills. Cultural products or practices are used to demonstrate how culture and perspectives may vary between communities. Students reflect on the interplay between language and culture, and its impact on meaning, understanding and the individual's language use in specific contexts and for specific audiences.

## Unit 3: Interpreting, negotiating, persuading and expressing ideas in French

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Students investigate the way French speakers interpret and express ideas and negotiate and persuade in French through the study of the following three topics: future aspirations and gap years, the environment and gender equality. Each area of study focuses on a different topic and builds a specific language skill to communicate in either speaking, listening, reading or writing in French. Students interpret information, inform others, and reflect upon and develop persuasive arguments. Students access and share useful information on the topics through French and consolidate and extend vocabulary and grammar knowledge and language skills. Students consider the influence of language and culture in shaping meaning and reflect on the practices, products and perspectives of the cultures of French-speaking communities. They reflect on how knowledge of French and French-speaking communities can be applied in a range of contexts and endeavours, such as further study, travel, business or community involvement.

## Unit 4: Study of cultural perspectives and language of French-speaking communities

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Students investigate aspects of culture through the study of the following topics: French cultural identity and heritage and multiculturalism. Students research and present information on a cultural product or practice from a French-speaking community. Students analyse and present in writing information extracted from written, spoken and viewed texts in French. Students present information, concepts and ideas in an extended written response to persuade an audience of a point of view or evaluate existing ideas and opinions. Students build on their knowledge of French-speaking communities, considering cultural perspectives and language and explaining personal observations. Students consolidate and extend vocabulary, grammar knowledge and language skills to investigate the topics through French. Students identify and reflect on cultural products or practices that provide insights into French-speaking communities. Cultural products or practices are drawn from a diverse range of texts, activities and creations. Students reflect on the ways culture, place and time influence values, attitudes and behaviours. They consider how knowledge of more than one culture can influence the ways individuals relate to each other and function in the world.

# Languages – Japanese

**Are you interested in...?** Exploring different cultures, experiencing the world from another culture and country's perspective, Japanese pop culture such as anime, manga and gaming, and Japanese culture such as food, clothing and sports.

Career pathways bullseye: [Languages](#)

[VCAA Study Page](#)

Students choosing Japanese will benefit from previous studies in this language in the preceding year.

## Unit 1: Communicating language & culture of Japanese-speaking communities

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Students develop an understanding of the language and culture/s of Japanese-speaking communities through the study of the following three topics: family, school life and healthy life. Each area of study in the unit focuses on a different topic. Students access and share useful information on the topics and subtopics through Japanese and consolidate and extend vocabulary and grammar knowledge and language skills. They focus on analysing cultural products or practices including visual, spoken or written texts. Cultural products or practices can be drawn from a diverse range of texts, activities and creations. These may include the following: stories, poems, plays, novels, songs, films, photographs, artworks, architecture, technology, food, clothing, sports and festivals. Students apply acquired knowledge of Japanese culture and language to new contexts. Students reflect on the interplay between language and culture, and its impact on the individual's language use in specific contexts and for specific audiences.

## Unit 2: Analysing language & culture of Japanese-speaking communities

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Students develop an understanding of aspects of language and culture through the study of the following three topics: innovation in technology, living in Japan, and famous people. Each area of study focuses on a different topic. Students analyse visual, spoken and written texts. They access and share useful information on the topics and subtopics through Japanese and consolidate and extend vocabulary, grammar knowledge and language skills. Cultural products or practices can be used to demonstrate how culture and perspectives may vary between communities. Students reflect on the interplay between language and culture, and its impact on meaning, understanding and the individual's language use in specific contexts and for specific audiences.

## Unit 3: Interpreting, negotiating, persuading and expressing ideas in Japanese

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Students investigate the way Japanese speakers interpret and express ideas and negotiate and persuade in Japanese through the study of the following three topics: travelling, caring for the environment and future plans. Students interpret information, inform others, and reflect upon and develop persuasive arguments. They access and share useful information on the subtopics through Japanese, and consolidate and extend vocabulary and grammar knowledge and language skills. Students consider the influence of language and culture in shaping meaning and reflect on the practices, products and perspectives of the cultures of Japanese-speaking communities. They reflect on how knowledge of Japanese and Japanese-speaking communities can be applied in a range of contexts and endeavours, such as further study, travel, business or community involvement.

## Unit 4: Study of cultural perspectives and language of Japanese-speaking communities

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Students investigate aspects of culture through the study of the following three topics: school lunch, food education in Japan and social media. Students build on their knowledge of Japanese-speaking communities, considering cultural perspectives and language and explaining personal observations. Students consolidate and extend vocabulary, grammar knowledge and language skills to investigate the topics through Japanese. Students identify and reflect on cultural products or practices that provide insights into Japanese-speaking communities. Cultural products or practices can be drawn from a diverse range of texts, activities and creations. Students reflect on the ways culture, place and time influence values, attitudes and behaviours. They consider how knowledge of more than one culture can influence the ways individuals relate to each other and function in the world.



## Languages - other

Any student wanting to study a language through VSL (or another external institution) needs to advise the Senior Curriculum Leader.

**Are you interested in...?** Exploring different cultures, experiencing the world from another culture and country's perspective. Improving skills in lateral thinking, problem solving, nonverbal intelligence, English, Maths and memorisation.

**Career pathways bullseye:** [Languages](#)

Students have the opportunity to continue their other language study, or begin a language study in VCE through the Victorian School of Languages. VSL offer both an online or face to face curriculum delivery program, depending on the language studied. Face to Face delivery is commonly held on a weeknight or weekend.

Students studying Unit 1/2 language should have some proficiency in the written, oral and aural components of the language. VSL can offer a level assessment to gauge the student level of proficiency before enrolling.

In 2023, the languages offered through VSL were as follows:

| Distance Education     | Face to Face Delivery            | Face to Face Delivery | Face to Face Delivery |
|------------------------|----------------------------------|-----------------------|-----------------------|
| Arabic                 | Albanian                         | German                | Pashto                |
| Chinese - Mandarin FL  | Amharic                          | Greek                 | Persian               |
| Chinese - Mandarin SL  | Arabic                           | Gujarati              | Polish                |
| Chinese - Mandarin SLA | Bengali                          | Hebrew                | Portuguese            |
| Classical Greek        | Bosnian                          | Hindi                 | Punjabi               |
| French                 | Bulgarian                        | Hungarian             | Romanian              |
| German                 | Chin (Falam)                     | Indonesian            | Russian               |
| Greek                  | Chin (Hakha)                     | Italian               | Serbian               |
| Hindi                  | Chinese (Culture and Society)    | Japanese              | Sinhala               |
| Indonesian             | Chinese - Cantonese              | Japanese FL           | Spanish               |
| Indonesian FL          | Chinese - Mandarin (Traditional) | Kannada               | Swahili               |
| Italian                | Chinese - Mandarin FL            | Karen                 | Tamil                 |
| Japanese               | Chinese - Mandarin SL            | Khmer                 | Telugu                |
| Japanese FL            | Chinese - Mandarin SLA           | Korean                | Thai                  |
| Latin                  | Croatian                         | Korean FL             | Turkish               |
| Punjabi                | Dari                             | Macedonian            | Urdu                  |
| Spanish                | Dutch                            | Malay                 | Vietnamese            |
| Vietnamese             | Filipino (Tagalog)               | Malayalam             | Vietnamese FL         |
|                        | French                           | Mizo                  | Zomi                  |

# Legal Studies

**Are you interested in...?** Understanding more about criminal and civil law, the sanctions and remedies imposed and how these cases are resolved. Legal Studies explores the fundamental concepts of our legal system which you observe in your daily life.

Career pathways bullseye: [Community Services](#), [Business Studies](#), [Social Sciences](#), [Economics](#)

[VCAA Study Page](#)

## Unit 1: The presumption of innocence

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Laws, including criminal law, aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order. When a criminal law is broken, a crime is committed which is punishable and can result in criminal charges and sanctions.

Students develop an understanding of legal foundations, such as the different types and sources of law, the characteristics of an effective law, and an overview of parliament and the courts. Students are introduced to and apply the principles of justice. They investigate key concepts of criminal law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime. In doing this, students develop an appreciation of the manner in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused. Students also develop an appreciation of how a criminal case is determined, and the types and purposes of sanctions. Students apply their understanding of how criminal cases are resolved and the effectiveness of sanctions through consideration of recent criminal cases from the past four years.

## Unit 2: Wrongs and rights

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

## Unit 3: Rights and justice

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The Victorian justice system, which includes the criminal and civil justice systems, aims to protect the rights of individuals and uphold the principles of justice: fairness, equality and access. Students examine the methods and institutions in the criminal and civil justice system, and consider their appropriateness in determining criminal cases and resolving civil disputes. Students consider the Magistrates' Court, County Court and Supreme Court within the Victorian court hierarchy, as well as other means and institutions used to determine and resolve cases.

Students explore topics such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

## Unit 4: The people, the law and reform

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

# Mathematics – Foundation

**Are you interested in...?** Continuing building upon your knowledge and understanding of the necessary numeracy skills required for everyday life as a student, worker or business owner.

**Career pathways bullseye:** [Construction](#), [Industrial Arts](#), [Metal Work and Engineering](#), [Textiles and Design](#), [Art](#), [Business Studies](#), [Automotive](#), [Computing](#), [Entertainment](#), [Maths](#), [Music](#), [Physical Education](#), [Retail](#), [Rural Studies](#).

[VCAA Study Page](#)

## Unit 1

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Foundation Mathematics provides students with the necessary mathematical skills to solve problems in real-world contexts for a range of workplace, personal, further learning and community settings. Students will learn about measurement and geometry to calculate the area, perimeter, volume and surface area of various 2D and 3D shapes. Students will solve financial problems involving tax, bills and wages. They will extend their knowledge of statistics through interpreting graphs and calculating summary statistics, quartiles and outliers.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 2

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Students will further their understanding of statistics through investigating histograms, frequency tables, box-plots and back-to-back stem-and-leaf plots. They will practice their algebra skills of expanding, factorising and substituting. Students will learn to make budgets to purchase items such as cars and houses. Students will also apply their understanding of rates and ratios to investigate scale diagrams of house plans. Furthermore, they will learn about compass directions and navigation to learn about distances and bearings.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 3 & 4

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Foundation Mathematics Units 3 and 4 focus on providing students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society.

Students will continue their investigations into  $\pi$  and its relationship with the area and perimeter of a circle, as well as Pythagoras' theorem for triangles. They will also calculate the area, perimeter, volume and surface area of composite shapes. Students will apply their understanding of financial maths to simple and compound interest, inflation and appreciation. They will use spreadsheets to calculate the value of reducing balance loans for mortgages. In statistics, they will further their ability to interpret bubble graphs, radar charts and stacked area graphs. They will also calculate the line of best fit to interpolate and extrapolate data.

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

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.



# Mathematics - General

**Are you interested in...?** Extending your core maths skills which you have developed in Year 7-10 by applying them to new contexts. You will gain a strong understanding of how we use maths in everyday life especially when it comes to financial maths and statistics (data analysis).

**Career pathways bullseye:** [Community Services](#), [Food Studies](#), [Health](#), [Social Sciences](#), [Construction](#), [Industrial Arts](#), [Metal Work and Engineering](#), [Textiles and Design](#), [Art](#), [Business Studies](#), [Automotive](#), [Computing](#), [Entertainment](#), [Maths](#), [Music](#), [Physical Education](#), [Retail](#), [Rural Studies](#), [Hospitality](#)

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## Unit 1

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Students will focus on 4 separate areas of study which allow them to explore practical mathematical skills. Students will further their statistics abilities from year 10 and learn to analyse statistics to use as evidence when forming conclusions. Students will examine number patterns and sequence and use recursive relations to use in financial applications like compound interest and depreciation. Students will begin to learn the basics of matrices and create communication network matrices. Students will be able to describe the world around them through modelling of linear relations. Each of their skills will be enhanced with the efficient use of technology in the form of CAS calculators.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 2

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Students will build upon their knowledge by applying statistical analysis techniques to bivariate data. Students will begin to look at linear relationships between variables before moving on to analyse non-linear relations through the topic of variations. Students can represent real-life networks and scenarios with graphs and relate these to matrices from unit 1. Students will continue to work on measurement and geometry skills from year 10, furthering their ability to apply measurement formulae to real-world applications.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 3 & 4

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Students will focus on real-life application of mathematics to help problem-solve and model situations. In Unit 3, students will undertake a unit on data analysis, investigating how data can be represented through graphs and box-plots. They will also investigate the use of logarithmic scales, the normal distribution, time-series data and smoothing techniques. Students will also complete a unit on recursion and financial modelling. This involves exploring sequences and linear growth and decay through the context of reducing balance loans, annuities, investments and other financial contexts. In Unit 4, students will learn about matrices, graphs and networks. They will learn about dominance matrices, transition matrices and the Leslie matrix. Students will use networks to solve minimum spanning trees, flow problems, matching problems, and scheduling problems. They will use Dijkstra's algorithm to find the shortest path.

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

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

# Mathematical Methods

**Are you interested in...?** Extending your problem solving and reasoning skills in the areas of Calculus and Statistics. Many of the laws of science are relationships involving rates of change (or Calculus). This subject provides a foundation for further studies in disciplines in which mathematics and statistics have important roles.

**Career pathways bullseye:** [Maths](#), [Social Sciences](#), [Physics](#), [Metal Work & Engineering](#), [Chemistry](#), [Health](#) [VCAA Study Page](#)

## Unit 1

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Students will analyse and sketch the graphs of quadratics, and they solve quadratic equations by factorising, completing the square and using the general formula. Students will examine rules of common algebraic relations and sketch their graphs with simple transformations. They will analyse functions using key features such as axis intercepts, domain, co-domain and range, stationary points, and asymptotes. Students will learn to identify the linear factors of cubic and quartic polynomials, sketch their graphs, and solve related equations and inequalities. They also will apply quadratic and cubic functions to solve problems, with and without CAS technology. Finally, students will use permutations and combinations to determine the number of outcomes and associated probabilities for a range of experiments.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 2

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Students will commence an in-depth study of calculus, covering differentiation and anti-differentiation of polynomial functions by rule, different notations, and related applications including the analysis of graphs. They will go on to explore circular functions, including the symmetry properties of the unit circle, graphs of sine, cosine and tangent, and simple applications of sine and cosine functions. Students will then use lists, tables and diagrams to calculate probabilities, including consideration of complementary, mutually exclusive, conditional and independent events. Finally, students will investigate exponential and logarithmic functions and how these can be used to model situations such as population growth and radioactive decay.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 3 & 4

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Students will study how to graphically represent algebraic functions of a single real variable using key features such as axis intercepts, domain, co-domain and range, stationary points, and asymptotes. Further, students will explore the graphs of exponential, logarithmic, and circular functions. Students will investigate the behaviour of these graphs under dilations, reflections, and translations, as well as the composition of functions. They will explore the behaviour of functions and their graphs in a variety of modelling contexts and theoretical investigations. Students will learn about calculus concepts to investigate the shape of functions and their graphs. Students will cover graphical treatments of limits, continuity, and differentiability of functions of a single real variable, as well as differentiation, anti-differentiation, and integration of these functions. Finally, students will learn about concepts in probability such as discrete and continuous random variables, their representation using tables, probability functions. Students will learn to calculate and interpret central measures, measures of spread, and statistical inference for sample proportions.

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

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

# Mathematics – Specialist

Students who wish to study Specialist Maths must also be studying Maths Methods.

Are you interested in...? Applying mathematics to problem solving, reasoning and modelling.

Career pathways bullseye: [Maths](#), [Metalwork and Engineering](#), [Computing](#), [Physics](#)

[VCAA Study Page](#)

## Unit 1

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Specialist Mathematics provides a course of study for students who wish to undertake an in-depth study of mathematics. Students will investigate the behaviours of number patterns, both arithmetic and geometric sequences and series. They will then investigate algorithms and pseudocode, where they can apply to different mathematical processes. Students will explore the concept of mathematical proof, and different methods which can be implemented to show various mathematical equations and facts. Students will be introduced to Boolean logic and its application to truth tables, Karnaugh maps and logic circuits. Students will explore factorial notation and its applications in calculating combinatorics. Finally, students will explore how matrices are useful in representing information and solving simultaneous equations.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 2

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Students will explore statistical distribution and the concept of using sample means. Students will be introduced to imaginary numbers and complex numbers, and the calculations that can be computed. They will also be introduced to vectors and their different representations to solve problems involving forces and kinematics. Finally, they will build on their knowledge of trigonometry and investigate techniques for graphing linear and non-linear functions. They will explore algebraic, locus, parametric and graphical representations.

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.

## Unit 3 & 4

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Students will extend their knowledge of complex numbers and their various representations. They will also explore vectors and the equations of lines and planes in 3D space. Students will consolidate their proof skills, including proof by induction. Students will complete a comprehensive unit on both differential calculus and integral calculus. They will apply these to finding stationary points and points of inflection, area under the curve, volumes and surface areas of revolution and arc lengths of curves. They will learn a range of techniques by-hand, such as integration by substitution, integration by parts and the use of trigonometric identities. Students will explore differential equations. Finally, students will extend their knowledge of probability and statistics through understanding the distribution of sample means and the use of hypothesis testing and confidence intervals.

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

In undertaking these units, students will be expected to apply their skills and knowledge to application-based and problem-solving questions. They will learn to represent maths in a variety of ways, such as algebraically, graphically and geometrically, by using lists, tables, diagrams, equations and graphs. As well as calculating by-hand, they will also be able to use their CAS calculators and other technology.



# Media

**Are you interested in...?** Creative writing, analysing films and TV shows, understanding the influence of the media, making films, photography, podcasts, animation, acting, radio, producing, scriptwriting, directing, editing, print advertising, advertising and journalism.

Career pathways bullseye: [Entertainment](#), [Media Studies](#)

[VCAA Study Page](#)

## Unit 1: Media representations

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Students study representations seen in the media in order to critically review how we see ourselves and our world in media products. They analyse how these representations are influenced by social, industrial, economic and technological factors existing at the time, and in the location and context of their creation, production, distribution and consumption. Students then learn how they can manipulate codes and conventions to create representations in a production. Students work in two media forms to design and create media productions that craft a certain representation. The unit concludes with an analysis into how Australian stories are structured in fictional and non-fictional media narratives. Factors reviewed include government regulation, finance and the economic sustainability of production. Aboriginal and Torres Strait Islander voices are also analysed as an important element in the Australian media landscape.

## Unit 2: Narrative across media forms

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Students analyse how media creators develop their style by explore and examine how narratives construct realities and meaning for audiences. Narratives are constructed and shaped referencing a rich production history. This includes the personal and distinctive style of media professionals who play leading roles in the construction of the narrative, the selection and manipulation of media codes and conventions that stem from a range of cultures and histories. Students then apply these learnings to ascertain how they can use the production process to create their own media narratives. Students work in two media forms to design and create media productions that craft a particular narrative. The unit concludes with an analysis into the impact of new media technologies on us as individuals and as a society, particularly how the new developments in media technologies have dramatically altered the media landscape and the relationship between the media and its audiences. They evaluate the impact of developments on individuals, society and culture.

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

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Students examine the role that context plays in the production, distribution and reading of media products. Social, historical, institutional, cultural, economic and political contexts are all evident through the views and values conveyed by media products and students consider how codes and narrative conventions create meaning. Students explore the role codes and conventions play in both their own work and the work of others, developing their media language and terminology.

Through the study of a media narrative, students explore specific codes and narrative conventions and begin the process of research to support their understanding of how they can adopt and employ these techniques in their own works. They investigate a media form that aligns with their interests and intent, developing an understanding of the codes and narrative conventions appropriate to audience engagement, consumption and reception within the selected media form. Students use the pre-production stage of the media production process to design the production of a media product for a specified audience. Students undertake pre-production planning appropriate to their selected media form and develop written and visual planning documents to support the production and post-production of a media product in Unit 4.

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

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Students focus on the production and post-production stages of the media production process, bringing the pre-production plans created in Unit 3 to their realisation. Students refine their media production in response to feedback.

The context in which media products are produced, distributed and consumed is an essential framework through which audiences view and read media products. Social, historical, institutional, cultural, economic and political contexts can be seen through explicit or implied views and values conveyed within media products. The media disseminate these views and values within a society and, as a result, can play a key role in influencing, reinforcing or challenging the cultural norms.

Students explore the relationship between the media and audiences, focusing on the opportunities and challenges afforded by current developments in the media industry. They analyse the role of the Australian government in regulating the media.

# Music

**Are you interested in...?** Understanding music from a range of genres and styles. Honing individual instrumental music and performance skills. Involves listening critically and analysing music.

Career pathways bullseye: [Entertainment, Music](#)

[VCAA Study Page](#)

## Unit 1: Organisation of music

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Students explore and develop their understanding of how music is organised. By performing, creating, analysing and responding to music works that exhibit different approaches, students explore and develop their understanding of the possibilities of musical organisation. They prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding on their chosen instrument/sound source. At least two works should be associated with their study of approaches to music organisation. They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied. They develop knowledge of music language concepts as they analyse and respond to a range of music, becoming familiar with the ways music creators treat elements of music and concepts and use compositional devices to create works that communicate their ideas.

## Unit 2: Effect in music

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Students focus on the way music can be used to create an intended effect. By performing, analysing and responding to music works/examples that create different effects, students explore and develop their understanding of the possibilities of how effect can be created. Through creating their own music, they reflect this exploration and understanding. Students prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding using their chosen instrument/sound source. They should perform at least one work to convey a specified effect and demonstrate this in performance. They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied. As they analyse and respond to a wide range of music, they become familiar with the ways music creators treat elements and concepts of music and use compositional devices to create works that communicate their ideas. They continue to develop their understanding of common musical language concepts by identifying, recreating and notating these concepts.

## Unit 3: Music contemporary performance

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Students study the work of other performers and analyse their approaches to interpretation and how personal voice can be developed through reimagining existing music works. They refine selected strategies to enhance their own approach to performance. Students prepare a program for assessment in a live performance. They may be assessed as primarily a member of a group or as a solo performer. Students begin developing the program they will present in Unit 4. They use music analysis skills to refine strategies for developing their performances. All performances must include at least one ensemble work with another live musician and an original work created by an Australian artist since 1990. All performances must include a personally reimagined version of an existing work. Original works may also be included in the program. Students analyse interpretation in a wide range of recorded music, responding to and analysing music elements, concepts, compositional devices and music language. Students also learn how to recognise and recreate music language concepts such as scales, melodies, chords, harmony and rhythmic materials that relate to contemporary music.

## Unit 4: Music contemporary performance

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Students continue to work towards building a performance program they will present at their end-of-year examination in line with their Statement of Intent. The program will contain at least one performance that is a reimagined version of an existing work and an original work created by an Australian artist since 1990. Students present with any instrument or combination of instruments which will be suitable to convey understanding of the key knowledge and application of key skills for Outcome 1, with styles including (but not limited to) rock, pop, jazz, EDM, country, funk and R&B. Students continue to study the work of other performers and their approaches to interpretation and personal voice in performing music works. They refine selected strategies to optimise their own approach to performance. Students further develop strategies to address the technical, expressive and stylistic challenges relevant to works they are preparing for performance. Students listen and respond to a further range of recorded music by a variety of performers in contemporary styles. They continue to study music language concepts that relate to contemporary music. Students submit a program list along with a Performer's Statement of Intent. Part of the statement should include information about their reimagined piece and explain how the existing work has been manipulated.

# Outdoor and Environmental Studies

Are you interested in...? Outdoor adventure activities, environmental history, conservation and sustainability.

Career pathways bullseye: [Outdoor Education](#), [Environmental Science](#) [VCAA Study Page](#)

## Unit 1: Connections with outdoor environments

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

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

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

## Unit 2: Discovering outdoor environments

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

Students study the effects of natural changes and impacts of land management practices on the sustainability of outdoor environments by examining a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention.

Students develop the practical skills required to minimise the impact of humans on outdoor environments. They comprehend a range of vocational perspectives that inform human use of outdoor environments. Through reflecting upon their experiences of outdoor environments, students make comparisons between outdoor environments, as well as develop theoretical knowledge about natural environments.

## Unit 3: Relationships with outdoor environments

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

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

Students are involved in multiple experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences, students make comparisons between, and reflect upon, outdoor environments, as well as develop theoretical knowledge and skills about specific outdoor environments.

## Unit 4: Sustainable outdoor environments

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Students explore the sustainable use and management of outdoor environments. They observe and assess the health of outdoor environments and consider the importance of this health for the future of Australian outdoor environments and the Australian population.

Students examine the importance of the sustainability of human relationships with outdoor environments and the urgent need to balance human needs and the needs of outdoor environments. They investigate current acts and conventions as well as management strategies for achieving and maintaining healthy and sustainable Australian outdoor environments in contemporary Australian society.

Students engage in multiple related experiences in outdoor environments, conducting an ongoing investigation into the health of, and care for, these places. They learn and apply the practical skills and knowledge required to sustain healthy outdoor environments and evaluate the strategies and actions they employ. Through these practical experiences, students reflect upon outdoor environments and make comparisons between them by applying theoretical knowledge developed about outdoor environments.

As global citizens, students investigate how individuals and community members take action towards promoting sustainable and healthy outdoor environments and describe possible solutions to threats facing outdoor environments and their sustainability.



# Philosophy

**Are you interested in...?** Western philosophy, metaphysics, philosophy of knowledge, arguments of formal and informal logic, human nature, the good life and studying significant philosophers.

Career pathways bullseye: [Social Sciences](#), [History](#), [Community Services](#)    [VCAA Study Page](#)

## Unit 1: Philosophy, existence and knowledge

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What is the nature of reality? How can we acquire certain knowledge? These are some of the questions that have challenged humans for millennia and underpin ongoing endeavours in areas as diverse as science, justice and the arts. This unit engages students with fundamental philosophical questions through active, guided investigation and critical discussion of 2 key areas of philosophy: epistemology and metaphysics. The emphasis is on philosophical inquiry – ‘doing philosophy’ – through the formulation and exploration of questions in philosophical exchanges with others. Hence the study and practice of techniques of philosophical reasoning are central to this unit. As students learn to think philosophically, appropriate examples of philosophical viewpoints and arguments, both contemporary and historical, are used to support, stimulate and enhance their thinking about central concepts and problems. At least one of these examples will be from a primary philosophical text using a complete text or an extract. As students investigate central concepts and problems, they will also consider the relationship between philosophical problems and relevant contemporary debates.

## Unit 2: Questions of value

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What are the foundations of our judgments about value? What is the relationship between different types of value? How, if at all, can particular value judgments be defended or criticised? This unit enables students to explore these questions in relation to different categories of value judgment within the realms of morality, political and social philosophy and aesthetics. Students also explore ways in which viewpoints and arguments in value theory can inform and be informed by contemporary debates. They study at least one primary philosophical text, using the complete text or an extract, and develop a range of skills including formulating philosophical questions and developing philosophical perspectives.

## Unit 3: The good life

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This unit considers the crucial question of what it is for a human to live well. It explores questions of relevance to our own good lives – what is happiness? What role should pleasure and self-discipline, friendship and love play in the good life? – as well questions regarding the good life as it may be understood within the context of our relationships with others beyond our immediate communities. Students consider the implications of adopting particular perspectives, viewpoints and arguments for questions of relevance to contemporary living, such as our relationship with those beyond our immediate communities, non-human animals and the broader natural world. Students engage with the set texts to develop perspectives on questions relating to the good life, including questions of relevance to contemporary living. Through critical reflection on ideas, perspectives, viewpoints and arguments, students develop and defend their own philosophical positions.

## Unit 4: On believing

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In recent decades, developments in information and communication technologies have changed the way we share beliefs and acquire and justify knowledge. More than ever, we rely on the testimony of others, in particular, those we judge to be experts. But what is an expert? What qualities must testimony have to be trusted? And, in a world filled with multiple and often contradictory sources, how do we separate good beliefs from poor beliefs? This unit focuses on interpersonal aspects of belief and belief formation, considering what it means to believe well by examining the nature of belief and the grounds for accepting or rejecting beliefs. Across 2 areas of study, students explore what our obligations are in relation to belief; when we should adjust or change our beliefs; and to what extent we should take responsibility for fostering the good beliefs of others and the conditions that make them possible. Through so doing, students are invited to consider the interrelationship between believing well and living well.

# Physical Education

**Are you interested in...?** How the body works in exercise/sport, how to improve performance through physical, psychological, nutritional pathways, how to increase physical activity across the population, and sport, training and performance enhancement.

Career pathways bullseye: [Physical Education](#), [Biology](#), [Health](#)

[VCAA Study Page](#)

## Unit 1: The human body in motion

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Students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Students investigate the role and function of the main structures in each system and how they respond to movement. Through participation in practical activities, students explore and analyse the relationships between the body systems and movement, and how these systems interact and respond at various intensities. Students investigate possible conditions and injuries associated with the musculoskeletal system and recommend and implement strategies to minimise and manage such injuries and conditions. They consider the ethical implications of using permitted and prohibited practices to improve the performance of the body systems, evaluating perceived physiological benefits and describing potential harms.

## Unit 2: Physical activity, sport, exercise & society

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This unit develops students' understanding of physical activity, sport and exercise from a participatory perspective. Students are introduced to types of physical activity and the role that physical activity participation and sedentary behaviour plays in their own health and wellbeing, as well as in other population groups and contexts.

Through a series of practical activities, students experience and explore different types of physical activity promoted within and beyond their community. They gain an appreciation of the movement required for health benefits and the consequences of physical inactivity and sedentary behaviour. Using various methods to assess physical activity and sedentary behaviour, students analyse data to investigate perceived barriers and enablers, and explore opportunities to enhance participation in physical activity. Students explore and apply the social-ecological model to critique a range of individual- and settings-based strategies that are effective in promoting participation in regular physical activity. They create and participate in a personal plan with movement strategies that optimise adherence to physical activity and sedentary behaviour guidelines.

By investigating a range of contemporary issues associated with physical activity, sport and exercise, students explore factors that affect access, inclusion, participation and performance. Students then select one issue at the local, national or global level and analyse key concepts within the issue, including investigating, participating in and prescribing movement experiences that highlight the issue.

Students develop an understanding of the historical and current perspectives on the issue and consider the future implications on participation and performance.

## Unit 3: Movement skills & energy for physical activity, sport and exercise

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This unit introduces students to principles used to analyse human movement from a biophysical perspective. Students use a variety of tools and coaching techniques to analyse movement skills and apply biomechanical and skill-acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correctly applying these principles can lead to improved performance outcomes.

Students consider the cardiovascular, respiratory and muscular systems and the roles of each in supplying oxygen and energy to the working muscles. They investigate the characteristics and interplay of the 3 energy systems for performance during physical activity, sport and exercise. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

## Unit 4: Training to improve performance

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Students' participation and involvement in physical activity will form the foundations of understanding how to improve performance from a physiological perspective. Students analyse movement skills and fitness requirements and apply relevant training principles and methods to improve performance at various levels (individual, club and elite).

Improvements in performance, in particular fitness, depend on the ability of the individual and/or coach to gain, apply and evaluate knowledge and understanding of training. Students assess fitness and use collected data to justify the selection of fitness tests based on the physiological requirements of an activity, including muscles used, energy systems and fitness components. Students then consider all physiological data, training principles and methods to design a training program. The effectiveness of programs is evaluated according to the needs of the individual and chronic adaptations to training.

# Physics

**Are you interested in...?** Problem solving, working with ideas, hands-on experimentation, electrical circuits, astronomy and using mathematics to communicate.

Career pathways bullseye: [Physics](#), [Maths](#), [Metalwork and Engineering](#), [Computing](#) [VCAA Study Page](#)

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

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

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

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Students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments. In Area of Study 1, students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary and apply these concepts to a chosen case study of motion.

In Area of Study 2, students choose one of eighteen options related to climate science, nuclear energy, flight, structural engineering, biomechanics, medical physics, bioelectricity, optics, photography, music, sports science, electronics, astrophysics, astrobiology, Australian traditional artefacts and techniques, particle physics, cosmology and local physics research. The selection of an option enables students to pursue an area of interest through an investigation and using physics to justify a stance, response

or solution to a contemporary societal issue or application related to the option.

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

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

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

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

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

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



# Politics

**Are you interested in...?** Power – who has it, how do they get it, and how do they use it? Politics is the study of political, social, cultural and economic forces through national and global events, issues and conflicts.

Career pathways bullseye: [Social Sciences](#)

[VCAA Study Page](#)

## Unit 1: Politics, power and political actors

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In this unit, students learn that politics is about how political actors use power to resolve issues and conflicts over how society should operate. Students consider the concept of power by examining why and how political power is used, with special attention to the way national and global political actors exercise power and the consequences of that use. Students examine how power may be used by political actors in various states to achieve their interests, and they focus on a close study of a contested political issue in Australia. Students then investigate the power of global actors, who are able to use power across national and regional boundaries to achieve their interests and cooperate with other actors to solve conflicts, issues and crises. VCE Politics is a contemporary study and focus must be on examples and case studies from within the last 10 years.

## Unit 2: Democracy: stability and change

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In this unit, students investigate the key principles of democracy and assess the degree to which these principles are expressed, experienced and challenged, in Australia and internationally. They consider democratic principles in the Australian context and complete an in-depth study of a political issue or crisis that inherently challenges basic democratic ideas or practice. Students also investigate the degree to which global political actors and trends can challenge, inhibit or undermine democracy, and evaluate the political significance of these challenges.

## Unit 3: Global cooperation and conflict

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In this unit, students investigate an issue and a crisis that pose challenges to the global community. Students begin with an investigation into an issue of global scale, such as climate change, global economic instability, the issue of development or weapons of mass destruction. Students also examine the causes and consequences of a humanitarian crisis, such as human rights, armed conflict and the mass movement of people, that may have begun in one state but which has crossed over into neighbouring states and requires an emergency response. They consider the causes of these issues and crises, and investigate their consequences on a global level and for a variety of global actors. Importantly, students develop an appreciation for the perspectives and interests global actors bring to contemporary issues and crises, which can be multifaceted and changeable. Students come to understand that the responses of global actors to these issues or crises may take a variety of forms, such as cooperation, disengagement and/or conflict, and they assess the degree to which these responses can effectively resolve the issue or crisis. Students consider how the actions and responses of global actors contribute to creating global and regional political stability and/or change. VCE Politics is a contemporary study and focus must be on examples and case studies from within the last 10 years.

## Unit 4: Power in the Indo-Pacific

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In this unit, students investigate the strategic competition for power and influence in the Indo-Pacific region. They consider the interests and perspectives of global actors within the region, including the challenges to regional cooperation and stability. Building on their study of global issues and contemporary crises in Unit 3, students develop their understanding of power and national interests through an in-depth examination of one state's perspectives, interests and actions. Students must choose one state from the People's Republic of China, Japan, the Republic of India, the Republic of Indonesia or the United States of America. Students also examine Australia's strategic interests and actions in the region and consider how Australia's responses to regional issues and crises may have contributed to political stability and/or change. They do this within the context of Australia's relationships with one Pacific Island state and two other regional states.

# Product Design and Technology

Are you interested in...? Product design, fashion, machine and hand sewing, engineering, building and construction, woodwork and sustainable manufacturing.

Career pathways bullseye: [Construction](#), [Industrial Arts](#), [Metal Work and Engineering](#), [Textiles and Design](#), [Art](#)

[VCAA Study Page](#)

## Unit 1: Design practices

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

In this unit, students analyse and evaluate existing products and current technological innovations in product design. They achieve this through understanding the importance of a design brief, learning about factors that influence design, and using the Double Diamond design approach as a framework.

In their practical work, students explore and test materials, tools and processes available to them in order to work technologically, and they practise safe skill development when creating an innovative product. This is achieved through the development of graphical product concepts and the use of prototypes to explore and propose physical product concepts.

## Unit 2: Positive impacts for end users

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

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

## Unit 3: Ethical product design and development

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In this unit students research a real personal, local or global need or opportunity with explicit links to ethical considerations. They conduct research to generate product concepts and a final proof of concept for a product solution that addresses the need(s) or opportunities of the end user(s).

Product designers respond to current and future social, economic, environmental or other ethical considerations. This unit focuses on the analysis of available materials in relation to sustainable practices, tensions between manufacturing and production, modern industrial and commercial practices, and the lifecycles of products from sustainability or worldview perspectives.

Students plan to develop an ethical product through a problem-based design approach, starting with a need or opportunity and using a design process and testing to problem-solve. The design brief, product concepts and the final proof of concept are developed through the Double Diamond design approach, using design thinking. Students undertake the role of a designer to generate, analyse and critique product concepts, with the chosen product concept becoming the final proof of concept. Throughout a design process, the product concepts and the final proof of concept are evaluated using relevant factors that influence product design, and shaped using design thinking. Students learn about ethical research methods when investigating and defining their design need and/or opportunity and generating and designing their product concepts.

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

In Area of Study 2, students use design thinking to formulate a design brief that addresses a need or opportunity related to ethical product design, and conduct research to explore current market needs and/or opportunities. Students generate, evaluate and critique graphical product concepts (visualisations, design options and working drawings) related to ethical product design.

In Area of Study 3, students explore the physicality of product concepts through developing prototypes to select and justify the chosen product concept and a final proof of concept. Students develop a scheduled production plan to manage the resources in a design process and implement this scheduled production plan to make their product safely.

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

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

Students collect, analyse, interpret and present data, use ethical research methods and engage with end user(s) to gain feedback and apply their research and findings to the

production of their designed solution. Students also focus on how speculative design thinking can encourage research, product development and entrepreneurial activity through the investigation and analysis of examples of current, emerging and future technologies and market trends.

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

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



# Psychology

**Are you interested in...?** Understanding human behaviour including how people think, feel and behave, the relationship between the brain and behaviour, understanding psychological phenomena, interplay between genetics and environment.

Career pathways bullseye: [Social Sciences](#), [Business Studies](#), [Health](#), [Biology](#), [Health](#)

[VCAA Study Page](#)

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

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

A student-directed research investigation into contemporary psychological research is undertaken in Area of Study 3. The investigation involves the exploration of research, methodology and methods, as well as the application of critical and creative thinking to evaluate the validity of a research study by analysing secondary data.

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

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

Students examine the contribution that classical and contemporary research has made to the understandings of human perception and why individuals and groups behave in specific ways. Students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted. A student-adapted or student-designed scientific investigation is undertaken and involves the generation of primary data and is related to internal and external factors that influence behaviour and mental processes.

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

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

Students investigate how the human nervous system enables a person to interact with the world around them. They explore how stress may affect a person's psychological functioning and consider stress as a psychobiological process, including emerging research into the relationship between the gut and the brain in psychological functioning. Students investigate how mechanisms of learning and memory lead to the acquisition of knowledge and the development of new and changed behaviours. They consider models to explain learning and memory as well as the interconnectedness of brain regions involved in memory. The use of mnemonics to improve memory is explored, including Aboriginal and Torres Strait Islander peoples' use of place as a repository of memory.

A student-designed scientific investigation involving the generation of primary data related to mental processes and psychological functioning is undertaken.

## Unit 4: How is mental wellbeing developed & maintained?

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

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

A student-designed scientific investigation involving the generation of primary data related to mental processes and mental wellbeing.

# Systems Engineering

**Are you interested in...?** Engineering, mechanisms and mechatronics, electrotechnology, control systems, robotics, problem solving and sustainable energy.

Career pathways bullseye: [Metal Work and Engineering](#), [Electrotechnology](#), [Automotive](#)

[VCAA Study Page](#)

## Unit 1: Mechanical systems

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This unit focuses on engineering fundamentals as the basis of understanding concepts, principles and components that operate in mechanical systems. The term 'mechanical systems' includes systems that utilise all forms of mechanical components and their linkages. While this unit contains the fundamental physics and theoretical understanding of mechanical systems and how they work, the focus is on the creation of a system. The creation process draws heavily upon design and innovation processes. Students create an operational system using the systems engineering process. The focus is on a mechanical system; however, it may include some electrotechnological components. All systems require some form of energy to function. Students research and quantify how systems use or convert the energy supplied to them. Students are introduced to mechanical engineering principles including mechanical subsystems and devices, their motions, elementary applied physics, and related mathematical calculations that can be applied to define and explain the physical characteristics of these systems.

## Unit 2: Electrotechnological systems

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Students study fundamental electrotechnological engineering principles. The term 'electrotechnological' encompasses systems that include electrical/electronic circuitry including microelectronic circuitry. Through the application of the systems engineering process, students create operational electrotechnological systems, which may also include mechanical components or electro-mechanical subsystems. While this unit contains fundamental physics and theoretical understanding of electrotechnological systems and how they work, the focus is on the creation of electrotechnological systems, drawing heavily upon design and innovation processes. Electrotechnology is a creative field that responds to, and drives rapid developments and change brought about through technological innovation. Contemporary design and manufacture of electronic equipment involves increased levels of automation and inbuilt control through the inclusion of microcontrollers and other logic devices. Students explore some of these emerging technologies. Students study fundamental electrotechnological principles including applied electrical theory, standard representation of electronic components and devices, elementary applied physics in electrical circuits and mathematical processes that can be applied to define and explain the electrical characteristics of circuits.

## Unit 3: Integrated & controlled systems

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Students study engineering principles used to explain physical properties of integrated systems and how they work. Students design and plan an operational, mechanical and electrotechnological integrated and controlled system. They learn about the technologies used to harness energy sources to provide power for engineered systems. Students commence work on the creation of an integrated and controlled system using the systems engineering process. This production work has a strong emphasis on innovation, designing, producing, testing and evaluating. Students manage the project, taking into consideration the factors that will influence the creation and use of their integrated and controlled system. Students' understanding of fundamental physics and applied mathematics underpins the systems engineering process, providing a comprehensive understanding of mechanical and electrotechnological systems and how they function. Students learn about sources and types of energy that enable engineered technological systems to function. Comparisons are made between the use of renewable and non-renewable energy sources and their impacts. Students develop their understanding of technological systems developed to capture and store renewable energy and technological developments to improve the credentials of non-renewables.

## Unit 4: Systems control

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Students complete the creation of the mechanical and electrotechnological integrated and controlled system they researched, designed, planned and commenced production of in Unit 3. Students investigate new and emerging technologies, consider reasons for their development and analyse their impacts. Students continue producing their mechanical and electrotechnological integrated and controlled system using the systems engineering process. Students develop their understanding of the open-source model in the development of integrated and controlled systems, and document its use fairly. They effectively document the use of project and risk management methods throughout the creation of the system. They use a range of materials, tools, equipment and components. Students test, diagnose and analyse the performance of the system. They evaluate their process and the system. Students expand their knowledge of emerging developments and innovations through their investigation and analysis of a range of engineered systems. They analyse a specific emerging innovation, including its impacts.

# Theatre Studies

**Are you interested in...?** Acting, directing, dance, costume design, set and props design, lighting design, sound design, producing, theatre history and stage management.

Career pathways bullseye: [Entertainment](#), [Performing Arts](#)

[VCAA Study Page](#)

## Unit 1: History of theatre styles and conventions pre-1945

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This unit delves into applying acting, direction, and design to theatre styles and their conventions prior to 1945, spanning from the era leading up to and including 1944. Students take on production roles, working with scripts from specific periods within theatre history until the end of 1944, focusing on at least two theatre styles, their conventions, and histories. They explore innovations in theatre production through these styles and apply their understanding to interpret works. Additionally, students cultivate knowledge and skills in theatre production processes, including dramaturgy, planning, development, and audience performance, while prioritising safe, ethical, inclusive, and sustainable practices. Moreover, students begin honing skills in performance analysis and apply them to analysing plays in performance.

## Unit 2: Contemporary theatre styles and movements

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This unit focuses on the application of acting, direction and design in relation to contemporary theatre practice from 1945 to the present day. Students work in production roles to interpret scripts. They study developments and innovations in theatre and apply this knowledge to their own work. Students develop knowledge of, and skills relating to, theatre production processes that include dramaturgy, planning, development and presentation to an audience, and they apply these to their own work. They study safe, ethical, inclusive and sustainable working practices (where possible, using environmentally sustainable approaches) in theatre production. They develop skills in theatre production analysis and evaluation, which they apply to their own work and to the work of other practitioners.

## Unit 3: Producing theatre

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In this unit, students develop an interpretation of a script through the 3 stages of the theatre production process: planning, development and presentation. Students specialise in 2 production roles, working collaboratively to interpret and realise the production of a script. They apply the knowledge developed during this process to analyse and evaluate how production roles can be used to interpret script excerpts previously unstudied. Students develop knowledge of elements of theatre composition and safe, ethical, inclusive and sustainable (where possible, environmentally sustainable) working practices in the theatre. Students attend a performance selected from the prescribed VCE Theatre Studies Playlist and analyse and evaluate the interpretation of the script of the performance.

## Unit 4: Presenting an interpretation

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In this unit, students study a scene and an associated monologue from a script. They initially develop an interpretation of the prescribed scene. This work includes exploring theatrical possibilities and using dramaturgy across the 3 stages of the production process. Students then develop an interpretation of the monologue that is embedded in the specified scene. To realise their interpretation, students work in production roles as an actor and director, or as a designer.



# Visual Communication Design

**Are you interested in...?** Design process, 2D and 3D drawing skills, communicating ideas and information through design, visual analysis, reflecting on design and design process across architecture, interior, exhibition and product design.

Career pathways bullseye: [Industrial Design](#), [Textiles and Design](#), [Art](#)

[VCAA Study Page](#)

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

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In this unit, students are introduced to the practices and processes used by designers to identify, reframe and resolve human-centred design problems. They learn how design can improve life and living for people, communities and societies, and how understandings of good design have changed over time. Students learn the value of human-centred research methods, working collaboratively to discover design problems and understand the perspectives of stakeholders. They draw on these new insights to determine communication needs and prepare design criteria in the form of a brief.

This process of discovery introduces students to the phases of the VCD design process and to the modes of divergent and convergent thinking. Students integrate these ways of thinking and working into future design projects, together with their newly evolved conceptions of good design across specialist fields.

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

## Unit 2: Design contexts and connections

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Unit 2 builds on understandings of visual communication practices developed in Unit 1. Students draw on conceptions of good design, human-centred research methods and influential design factors as they revisit the VCD design process, applying the model in its entirety. Practical tasks across the unit focus on the design of environments and interactive experiences. Students adopt the practices of design specialists working in fields such as architecture, landscape architecture and interior design, while discovering the role of the interactive designer in the realm of user-experience (UX). Methods, media and materials are explored together with the design elements and principles, as students develop spaces and interfaces that respond to both contextual factors and user needs.

Student learning activities highlight the connections between design and its context, and the emotive potential of interactive design experiences in both physical and digital spaces. Students also look to historical movements and cultural design traditions as sources of inspiration, and in doing so consider how design from other times and places might influence designing for the future. Design critiques continue to feature as an integral component of design processes, with students refining skills in articulating and justifying design decisions, and both giving and receiving constructive feedback.

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

## Unit 3: Visual communication design practices

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In Visual Communication Design for Unit 3 students will continue to build on their knowledge of Visual Communication Design by undertaking Design Practice in context. Students will understand design practice by undertaking a comparative analysis and a practical exploration. Students will also explore the importance of visual language in design and take the initial steps for the creation of two major design works. Throughout the subject, students will build on their own design practice, follow the double-diamond design process, understand and apply design elements and principles, gestalt principles of visual perception, good design and learn how to critically analyse design work to inform their own practices.

## Unit 4: Visual communication design development, evaluation and presentation

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Students continue to undertake a major design project to produce two presentation needs. Students learn to generate conceptual possibilities and refine their work by continuing to undertake the Design Process commenced the earlier stages of their projects. Additionally, students will pitch their design projects in the form of an oral presentation and construct their final two design works. Students will continue to build on their own design practice, understand and apply design elements and principles, gestalt principles of visual perception, good design and learn how to critically analyse design work to inform their own practices. Finally, students will learn how to properly acknowledging other's intellectual property and understand ethics within the design industry.

# Virtual School Victoria

Virtual School Victoria have a range of VCE subjects on offer to students who are not able to access these subjects at their home school. VSV conduct a virtual learning model that allow students to engage with the VCE content. Students will use their study sessions at school to allocate time for this subject. Students may elect to include a VSV subject in their course & will need to select this in the course selection process & then follow up with the Senior Curriculum Leader to begin the subject enrolment process.

## Units 1 & 2

Visit: [Year 11 - Virtual School Victoria \(vsv.vic.edu.au\)](https://vsv.vic.edu.au)

## Units 3 & 4

Visit: [Year 12 - Virtual School Victoria \(vsv.vic.edu.au\)](https://vsv.vic.edu.au)

# VCE – Vocational Major

The VCE is expanding to include the Vocational Major, a 2-year vocational and applied learning program. It will replace Senior and Intermediate VCAL from 2023.

The VCE Vocational Major will develop your personal and practical life skills. It will help to prepare you for the next important stage of your life.

## Where a VCE Vocational Major can take you

The VCE Vocational Major offers a pathway into:

- > apprenticeships
- > traineeships
- > further education and training
- > university (through alternative entry programs)
- > employment.

Remember that you already have many talents and you can now pursue them under the new VCE.

## Getting the VCE Vocational Major

To get your VCE Vocational Major, you must successfully finish at least 16 units, including:

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

You must also complete at least 3 other unit 3–4 sequences. This means 3 other full year studies at a year 12 level. You can do other VCE studies or VET.

You will apply knowledge and skills in practical settings such as workplaces. You'll do community-based activities and projects that involve working in a team. You can also receive credit for on-the-job learning.

Your teachers will assess your progress through a range of activities. You won't receive a study score for the VCE Vocational Major subjects, which means these subjects won't count towards an ATAR. This is because there are no external assessments, apart from the General Achievement Test and in some scored VCE VET programs.

Most students will finish their VCE Vocational Major over 2 years.

When students have completed their course, they will receive a Victorian Certificate of Education with the additional words 'Vocational Major'.



# Vocational Major Literacy

## Unit 1: Literacy for personal use

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This unit focuses on the structures and features of a range of texts – print, visual and film – and the personal reasons readers may have for engaging with these texts. Students will read or watch a variety of texts for a personal purpose, such as finding information. Texts should be chosen from a range of local and global perspectives, including First Nations peoples' and multicultural perspectives, and should include film, TV, online videos, song, poetry, biographies and digital content, and other texts of interest to the cohort. Through discussions and class activities students will develop their understanding of the structures and features of these text types, and examine how they are influenced by purpose, context, audience and culture. Students will read texts that serve a variety of purposes, from everyday content written to convey information, to texts written for specific workplaces or educational settings. Students will employ a variety of strategies to develop their understanding of the purpose and key ideas within the written and spoken language. They will extend their knowledge of the layout and format of a range of text types and use indexes, headings, subheadings, chapter titles and blurbs to locate and extract information.

## Unit 2: Understanding issues and voices

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Students will engage in issues that are characterised by disagreement or discussion, developing and expanding upon students' learning from Unit 1. Students will consider the values and beliefs that underpin different perspectives and how these values create different biases and opinions, including thinking about how these issues might arise in particular vocational or workplace settings. Students will read, view and listen to a range of texts and content that demonstrate diverse opinions on a range of local and global issues, and which may impact on their community or be of particular concern to a vocational or workplace group. Students should consider the language and purpose of different text types and consider how this language is used to influence an audience. Students will engage with a range of content from print, visual, aural and multimodal sources. Selection of text types should take into consideration the interests and abilities of the student cohort and the text types that students typically read, including social media. Students will discuss and explain how personal and vested interests, including those of particular vocations or workplaces, affect their own responses to an issue. Students will practise note-taking and responding to short-answer questions as well as formulating their own oral and written opinions.

## Unit 3: Accessing and understanding informational, organisational and procedural texts

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In this area of study students will become familiar with and develop confidence in understanding and accessing texts of an informational, organisational or procedural nature. These texts should reflect real-life situations encountered by students and be representative of the sorts of texts students will encounter in a vocational setting or workplace, or for their health and participation in the community.

Students will learn to recognise, analyse and evaluate the structures and semantic elements of informational, organisational and procedural texts as well as discuss and analyse their purpose and audience. Students will develop their confidence to deal with a range of technical content that they will encounter throughout adulthood, such as safety reports, public health initiatives, tax forms and advice, contracts, promotional videos and vocational and workplace texts.

As a part of this exploration of texts and content, students will participate and engage in activities that equip them to access, understand and discuss these text types.

## Unit 4: Understanding and engaging with literacy for advocacy

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In this area of study students will investigate, analyse and create content for the advocacy of self, a product or a community group of the student's choice, in a vocational or recreational setting. Students will research the differences between texts used for more formal or traditional types of advocacy, influence or promotion, as well as some of the forms that are increasingly being used in the digital domain for publicity and exposure.

Students will consider which elements are important for creating a 'brand' (including personal branding) and how different texts, images, products and multimedia platforms work together to produce one, central message to influence an audience. Students will compare and contrast the ways in which same message can be presented through different platforms and participate in discussions that consider the effectiveness of these messages, considering their purpose and the social and workplace values associated with them.

Students will read, discuss, analyse and create texts that influence or advocate for self, a product or a community group of the student's choice.

# Vocational Major Numeracy

Units 1-4 Numeracy have a focus on developing the numeracy skills for your personal, public and vocational lives.

## Unit 1

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In Unit 1 students will develop their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use of appropriate technologies.

These units provide students with the fundamental mathematical knowledge, skills, understandings and dispositions to solve problems in real contexts for a range of workplace, personal, further learning and community settings relevant to contemporary society.

There are four areas of study for Unit 1:

- > Area of Study 1: Number
- > Area of Study 2: Shape
- > Area of Study 3: Quantity and measures
- > Area of Study 4: Relationships.

## Unit 2

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In Unit 2 students will develop and extend their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and identification and appropriate selection and use of relevant technologies.

These units provide students with the fundamental mathematical knowledge, skills, understandings and dispositions to solve problems in real contexts for a range of workplace, personal, further learning and community settings relevant to contemporary society

There are four areas of study for Unit 2:

- > Area of Study 5: Dimension and direction
- > Area of Study 6: Data
- > Area of Study 7: Uncertainty
- > Area of Study 8: Systematics

## Unit 3:

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In Unit 3 students further develop and enhance their numeracy practices to make sense of their personal, public and vocational lives. Students extend their mathematical skills with consideration of their local, community, national and global environments and contexts, and the use and evaluation of appropriate technologies.

These units provide students with a broad range of mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning and community settings relevant to contemporary society.

The progression of learning is evident in Units 3 and 4 with the development of more complex numeracy and mathematical skills and knowledge, drawing on the knowledge gained from Units 1 and 2. There are four areas of study in Unit 3:

- > Area of Study 1: Number
- > Area of Study 2: Shape
- > Area of Study 3: Quantity and measures
- > Area of Study 4: Relationships.

## Unit 4:

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In Unit 4 students further develop, enhance and extend their numeracy practices to make sense of their personal, public and vocational lives. Students extend their mathematical skills with consideration of their local, community, national and global environments and contexts, and use of, evaluation and justification of appropriate technologies.

These units provide students with a broad range of mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning and community settings relevant to contemporary society.

The progression of learning is evident in Units 3 and 4 with the development of more complex numeracy and mathematical skills and knowledge, drawing on the knowledge gained from Units 1 and 2.

There are four areas of study for Unit 4:

- > Area of Study 5: Dimension and direction
- > Area of Study 6: Data
- > Area of Study 7: Uncertainty
- > Area of Study 8: Systematics

# Vocational Major Work Related Skills

## Unit 1: Careers and learning for the future

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

## Unit 2: Workplace skills and capabilities

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

## Unit 3: Industrial relations, workplace environment and practice

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This unit focuses on the core elements of a healthy, collaborative, inclusive and harmonious workplace and is separated into three main areas:

- > wellbeing, culture and the employee-employer relationship
- > workplace relations, and
- > communication and collaboration.

Students will learn how to maintain positive working relationships with colleagues and employers, understanding the characteristics of a positive workplace culture and its relationship to business success. They will investigate key areas relating to workplace relations including methods for determining pay and conditions, workplace bullying, workplace discrimination, workplace harassment and dispute resolution. Students will discover how teamwork and communication skills contribute to healthy, collegiate and productive workplaces.

## Unit 4: Portfolio preparation and presentation

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Portfolios are a practical and tangible way for a person to communicate relevant skills, experiences and capabilities to education providers and future employers. Students will develop and apply their knowledge and skills relating to portfolios, including the features and characteristics of a high-quality physical and/or digital portfolio. The unit culminates in the formal presentation of a completed portfolio in a panel style interview and an evaluation of the end product.



# Vocational Major Personal Development Skills

## Unit 1: Healthy individuals

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This unit focuses on the development of personal identity and individual pathways to optimal health and wellbeing. It begins with concepts of personal identity and the range of factors that contribute to an individual's perception of self and individual health and wellbeing. Students will use these findings to enhance an understanding of community cohesion, community engagement and how sense of identity may affect outcomes in different contexts. Students will investigate the elements of emotional intelligence and begin to develop an awareness of interrelationships between communities and the health and wellbeing of individuals.

Students will investigate local health-promoting organisations and resources and play an active, participatory role in designing and implementing activities or mechanisms to improve health and wellbeing. This unit highlights the importance of critical and creative thinking and clear communication as individuals explore personal identity and the role of community. Students will examine relationships between technologies and health and wellbeing, and develop tools for analysing the reliability, validity and accuracy of information and the efficacy of health messages.

## Unit 2: Connecting with community

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

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

## Unit 3: Leadership and teamwork

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This unit considers the role of interpersonal skills and social awareness in different settings and contexts. Students will examine leadership qualities and the characteristics of effective leaders and how these qualities can be applied to the achievement of goals within personal and community contexts. They will explore key components of effective teamwork and reflect on how to lead and contribute within a team context through a collaborative problem-solving activity. Students will evaluate individual contribution as well as the overall effectiveness of the team.

## Unit 4: Community project

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This unit focuses on student participation in an extended project relating to a community issue. Students will identify environmental, cultural, economic and social issues affecting the community and select one for an extended community project. They will look at past approaches to the selected issue in Australia and elsewhere, consider how they will research information, and formulate an objective to achieve. Students will reflect on how community awareness of a selected issue can be improved. Students will engage in a process of planning, implementing and evaluating a response to a selected community issue. They will conduct research, analyse findings and make decisions on how to present work. Students will consider the key elements (such as emotional intelligence and effective team practices) and considerations (such as safety and ethics) when implementing a community project. Students will present project to an appropriate audience of peers or community members and evaluate the effectiveness of chosen response to the issue.

# VET (Vocational Education & Training)

Vocational Education and Training (VET) is learning where you develop targeted and practical skills. The skills you learn relate to a career pathway, so can apply them at work or in further education and training. You can add a VET course or certificate to your studies while you're at school.

## Incorporating VET in your VCE or VCE Vocational Major

VET can play an important role in senior secondary schooling. When you add VET to your VCE or VCE VM studies you gain practical skills in an industry you are interested in.

### VET courses:

- > provide a nationally recognised qualification in a specific industry, or provide credit towards one
- > contribute towards the completion of your VCE
- > allow you to study through [School-Based Apprenticeships and Traineeships](#), which are often paid positions.

## VET programs in VCE and VCE Vocational Major in 2024

There are a range of VET programs that you can select as part of your VCE or VCE Vocational Major. Please speak to the Careers Counsellor about VET offerings available in 2024. There are some common VET courses outlined over the next few pages.

### Automotive

- > Certificate II in Automotive Vocational Preparation^

This certificate is in the VCE VET [Automotive](#) program.

### Agriculture and Environment

- > Certificate II in Agriculture^
- > Certificate II in Horticulture^
- > Certificate II in Conservation and Ecosystem Management^
- > Certificate II in Animal Care^

These certificates are in the VCE VET [Agriculture, Horticulture, Conservation and Land Management](#) or [Animal Care](#) programs.

### Building and Construction

- > Certificate II in Construction Pathways^
- > Certificate II in Building and Construction Pre-apprenticeship (partial completion)^
- > Certificate II in Plumbing (Pre-apprenticeship)^
- > Certificate II in Electrotechnology (Career Start)^
- > Certificate II in Electrotechnology Studies (Pre-vocational)^

These certificates are in the VCE VET [Building and Construction](#), [Plumbing](#) or [Electrical Industry](#) programs.

### Business

- > Certificate II in Workplace Skills
- > Certificate III in Business\*^
- > Certificate II in Small Business (Operations/Innovation)^

These certificates are in the VCE VET [Business](#) or [Small Business](#) programs.

\* Scored pathway available ^ Unit 3 and 4 sequence available

## Community Services and Early Childhood Education

- > Certificate II in Active Volunteering
- > Certificate III in Community Services incorporating Certificate II in Community Service\*^
- > Certificate III in Early Childhood Education and Care (partial completion)^
- > Certificate II in Applied Language
- > Certificate III in Applied Language

These certificates are in the VCE VET [Community Services](#) or [Applied Language](#) programs.

## Creative Industries

- > Certificate II in Creative Industries
- > Certificate III in Screen and Media\*^
- > Certificate II in Applied Fashion Design and Technology^
- > Certificate II in Music
- > Certificate III in Music (Performance)\*^
- > Certificate III in Music (Sound Production)\*^
- > Certificate III in Dance\*^

These certificates are in the VCE VET [Creative and Digital Media](#), [Applied Fashion Design and Technology](#), [Dance](#) or [Music](#) programs.

## Digital Media and Technologies

- > Certificate II in Applied Digital Technologies
- > Certificate III in Information Technology\*^
- > Certificate II in Integrated Technologies\*^

These certificates are in the VCE VET [Integrated Technologies](#) or [Information and Communications Technology](#) programs.

## Engineering

- > Certificate II in Engineering Studies\*^
- > Certificate II in Civil Construction^
- > Certificate III in Laboratory Skills\*^

These certificates are in the VCE VET [Engineering](#), [Civil Infrastructure](#) or [Laboratory Skills](#) programs.

\* Scored pathway available

^ Unit 3 and 4 sequence available

These certificates are in the VCE VET [Agriculture, Horticulture, Conservation and Land Management](#) or [Animal Care](#) programs.

## Hair and Beauty

- > Certificate II in Retail Cosmetics
- > Certificate II in Salon Assistant Certificate III in Beauty Services^
- > Certificate III in Make-Up^

These certificates are in the VCE VET [Hair and Beauty](#) program.

## Health

- > Certificate II in Health Support Service
- > Certificate III in Allied Health Assistance (partial completion) incorporating Certificate III in Health Services Assistance\*^

These certificates are in the VCE VET [Health](#) program.

## Hospitality

- > Certificate II in Hospitality\*^
- > Certificate II in Kitchen Operations\*^

These certificates are in the VCE VET [Hospitality](#) program.

## Sport and Recreation

- > Certificate II in Outdoor Recreation
- > Certificate II in Sport and Recreation
- > Certificate III in Sport and Recreation\*^

These certificates are in the VCE VET [Sport and Recreation](#) program.

## More information

- > Meet some high-achieving [VET Champions](#).
- > Read the VCE VET student guide [Get VET](#).
- > Support for apprenticeships and traineeships in government schools via [Head Start](#).
- > For options after you finish school, find out about [free TAFE](#).



# School-based Apprenticeship/Traineeship

Head Start is the School-Based Apprenticeships and Traineeships (SBATs) program that supports secondary school students to succeed while they study and work towards a career. A student enrolled in the Head Start program will be allocated a mentor who will work with the student in an advocacy/support role throughout the apprenticeship, even once the student has finished secondary school.

A student wanting to be part of the Head Start program and begin an apprenticeship/traineeship will still be able to commence within the Vocational Major program and begin their VET study and structured workplace learning before the SBAT has been fully set up.

The Victorian Government funded Head Start in 2019 with an initial investment of \$49.8m. Since then, the program has delivered over 1,700 apprenticeships and traineeships in over 150 secondary schools across Victoria.

Students have signed on to Head Start pathways in industries including building and construction, community services and health, business and technology services, and primary industries.

Head Start students spend more time doing relevant, paid, on-the-job training while completing their senior secondary certificate at school.

The program helps students to develop skills and experience that employers value. Head Start helps students to get the best start in their career.

Head Start has enabled over 1400 small and large businesses to employ an SBAT student and invest back into their local community. Employers report improved business outcomes through having a committed trainee or apprentice matched to organisational needs to build their future workforce.

SBATs are supported by Head Start teams based in schools. Employers of Head Start students have found that staff recruitment costs and dropout rates have reduced as a result of the assistance from these dedicated teams.

The expanded Head Start program also benefits government schools by placing over 100 equivalent full-time staff on the ground. This will enable some schools to offer SBATs for the first time and provide all schools with access to valuable pathways for their students through increased connection with employers and industry.

[Head Start - Apprenticeships and Traineeships from DET\\_Multimedia on Vimeo](#)

Students who are interested in following this pathway should discuss this with the Careers Counsellor.

# Victorian Pathways Certificate

The Victorian Pathways Certificate (VPC) is a new inclusive and flexible certificate.

It is replacing Foundation VCAL. It offers an engaging curriculum and additional support for students to develop the work-related skills and capabilities students need to succeed. If you've missed a lot of school or have additional learning needs, the VPC will help you progress to the VCE Vocational Major, entry level TAFE, VET or to get a job.

The VPC is normally completed in year 11 and 12, but it is flexible so it can be started earlier or finished over a longer period than 2 years. The coursework is designed and delivered at a more accessible level than the VCE and VCE Vocational Major. You can study the VPC at your own pace and your teachers will assess your progress through a range of classroom learning activities.

Your school may allow you to start the VPC at any time during the school year. The time you take to finish the VPC is flexible.

## Study options in the VPC

Students can:

- > Choose from four studies:
  - > VPC Literacy
  - > VPC Numeracy
  - > VPC Work Related Skills
  - > VPC Personal Development Skills.
- > Add VCE and VCE VM units or VET units of competency.
- > Spend some time in a workplace as part of your learning. This is known as Structured Workplace Learning.

## Getting the VPC

You must complete at least 12 units, including:

- > 2 units of VPC Literacy (or units from the VCE English group including VCE VM Literacy)
- > 2 units of VPC Numeracy (or units from the VCE Mathematics group including VCE VM Numeracy)
- > 2 VPC Work Related Skills units
- > 2 VPC Personal Development Skills units.

Many students will undertake more than 12 units in their VPC.