

# VCE AUSTRALIAN & GLOBAL POLITICS

Study Design Accreditation Period: 2017 – 2022

## ADVICE & PATHWAYS

Students choosing to study Australian & Global Politics should consider the following:

### Elective Charge

There is no elective charge for VCE Australian & Global Politics.

### This subject will suit you if you enjoy:

- Discussions, debates and philosophising;
- Establishing an opinion, justifying arguments;
- Making connections between situations and events;
- Vocabulary and meta-language, analytical writing and remembering key facts and dates;
- Being globally minded.

### This subject can lead to a career pathway in the following areas...

Politics (local/state/federal government), International Development, International Relations, Strategic Planning, Journalism, Media, Diplomatic Services, Legal services, Finance, International Trade, NGOs, International Agencies, Aid, Public Affairs, Public Relations, Lobbyist, Social Researcher, HR.

### Other subjects that complement this subject include:

- History;
- English (any);
- Philosophy;
- Legal Studies; and
- Business Management.

### Further considerations:

- There are no prerequisite subjects for Australian & Global Politics.
- If you watch the news and are interested in current events, then this is a subject for you.

### 2017 Australian Global Politics Teachers:

Year 11        Mr Rafal Kaplon

Year 12        Mr Rafal Kaplon

## UNIT DESCRIPTION

Australian & Global Politics was formerly known as International Politics (Unit 1-2) and International Studies (Units 3-4).

### Unit 1: The National Citizen

In this unit, students are introduced to the study of politics as the exercise of power by individuals, groups and nation-states. Students consider key concepts related to power and influence, types of power, political ideology and values, political involvement and active citizenship. The nature of and philosophical ideas behind democracy are studied, as well as the operation and nature of contemporary Australian representative democracy. Students examine the reason why people seek political power, the characteristics of successful political activist and leaders, and the political ideas that motivate them. The ways in which political power is exercised and how that power is challenged and resisted by others is explored. Students also examine the role and influence of social and political movements as methods of organising political ideas and action.

### Unit 2: The Global Citizen

This unit focuses on the contemporary international community. Students examine their place within this community through considering the debate over the existence of the 'global citizen'. In Area of Study 1 they explore the myriad of ways their lives have been affected by the increased interconnectedness – the global threads – of the world through the process of globalisation. In Area of Study 2, students consider the extent to which the notion of an international community exists, and investigate its ability to manage areas of global cooperation and respond to issues of global conflict and instability.

### Unit 3: Global Actors

In this unit students investigate the key global actors in twenty-first century global politics. They use contemporary evidence to analyse the key global actors and their aims, roles and power. They develop an understanding of the key actors through an in-depth examination of the concepts of national interest and power as they relate to the state, and the way in which one Asia-Pacific state uses power within the region to achieve its objectives. For purposes of this study, the term 'non-state actors' covers a range of global actors: altruistic non-government organisations (NGOs), for example Amnesty International and Green Peace' Organised religions; terrorist movements and organised crime syndicates.

### Unit 4: Global Politics: Global challenges

In this unit students investigate key global challenges facing the international community in the twenty-first century. They examine and analyse the debates surrounding two ethical issues, which are underpinned by the contested notion of global citizenship. They then evaluate the effectiveness of responses to these issues. Students also explore the context and causes of global crises, and consider the varying effectiveness of responses and challenges to solving them.

#### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## VCE ART

Study Design Accreditation Period: 2017 – 2021

### ADVICE & PATHWAYS

Students choosing to study VCE Art should consider the following:

#### VCE Elective Charge

In 2018 there is an elective charge of \$100.00 for Units 1 & 2.

In 2018 there is an elective charge of \$100.00 for Units 3 & 4.

#### This subject will suit you if you enjoy:

Practical and hands on work, creative and inquisitive thinking, experimenting and problem solving, exploring and developing ideas prior to creating artworks, discussing, analysing, writing/responding/drawing meaning from artwork.

#### This subject can lead to a career pathway in the following areas:

Artist, Graphic Artist, Animation, Architect, Art Advisor, Art Auctioneer, Art Conservator, Art Critic, Art Preservationist, Art Therapist, Ceramicist, Art Teacher, Fabric Designer, Exhibition Manager, Illustrator, Florist, Art Direction, Graphic Design, Interior Decorator, Muralist, Set Design and Construction, Sign Painting, Gallery Education Officer, Concept Design.

#### Other subjects that complement this subject include:

- Visual Communication and Design;
- Studio Art;
- English (any); and
- Product Design and Technology.

#### Further considerations:

- As a hands-on subject, Art provides the opportunity to develop a folio as a requirement for entry into specific tertiary courses.

#### 2017 VCE Art Teachers

Year 11 Mrs Rosemary Ash

Year 12 Mrs Rosemary Ash

## UNIT DESCRIPTION

In the study of VCE Art, students study artworks and the role of art in society. Students develop their artistic practice, expression and communication of ideas using a range of processes, materials and techniques. By combining a focused study of artworks with practical art making, they are encouraged to recognise the connection between research and art making.

### Unit 1: Artworks, experience and meaning.

Students explore how art elements, art principles, materials and techniques and artistic processes communicate meaning. They examine artists in different societies, cultures, and historical periods. In their practical work, students explore areas of personal interest and the characteristics of materials and techniques in a visual diary.

### Unit 2: Artworks and contemporary culture

This unit examines different ways artists interpret and present social and personal issues in their artistic practice. In students' own practice, they continue to use the art process and visual language to explore materials and techniques and develop personal and creative responses.

### Unit 3: Artworks, ideas and values

Students study artists who have produced works before 1990 and since 1990. Students use the Analytical Frameworks for analysing and interpreting the meaning of artworks. Their art making is supported through investigation, exploration and application of a variety of materials, techniques and processes, resolving one completed artwork.

### Unit 4: Artworks, ideas and viewpoints

In this unit students study artworks and develop personal points of view. They build their learning and conceptual understanding around art in society and consider how ideas and issues are communicated through artworks. In relation to their artwork, students build upon the ideas and concepts and present a body of work and at least one finished artwork.

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed task, school-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 10%

Unit 4 school-assessed coursework: 10%

Units 3 and 4 school-assessed task: 50%

Units 3 and 4 examination: 30%

## VCE BIOLOGY

Study Design Accreditation Period: 2016 – 2020

## ADVICE & PATHWAYS

Students choosing to study Biology should consider the following:

### VCE Elective Charge

There is no elective charge for VCE Biology.

### This subject will suit you if you enjoy:

- Conducting experimental investigations;
- Reading and summarise scientific texts;
- Memorising facts such as the names and functions of specific biological structures;
- Presenting and analysing data;
- Using specific vocabulary related to key biological principles and concepts;
- Conducting independent and collaborative research; and
- Solving problems.

**This subject can lead to a career pathway in the following areas:**

Biology can lead to a range of careers and studies such as: the Health and Medical Sciences, Sports Science, Agriculture, Animal and Veterinary studies and Science Education.

**Other subjects that complement this subject include:**

Biology can be undertaken with a range of other studies in the Sciences, Humanities and Mathematics areas; and can be seen as part of a balanced set of studies where breadth of experience is seen as worthwhile. It is typically studied with Chemistry and/or Psychology, as well as Mathematics. Many students choose to study Biology together with studies drawn from the humanities, HPE, Arts/Technology and LOTE areas.

**Further considerations**

- Students should always check with Careers Coordinator for Biology as a prerequisite study for tertiary courses.
- Satisfactorily completion of Year 10 SC202 and/or teacher recommendation is recommended. It is strongly recommended that a student completes VCE Biology Units 1 and 2 before undertaking the Unit 3-4 sequence.

**2017 VCE Biology Teachers**

Year 11 Mrs Julie Woodroffe, Mr Jay Cashmore, Mrs Michelle Osmers

Year 12 Miss Lisa Cavey

**UNIT DESCRIPTION**

Biology is a diverse and evolving science discipline that seeks to understand and explore the nature of life, past and present. Despite the diversity of organisms and their many adaptations for survival in various environments, all life forms share a degree of relatedness and a common origin.

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

Students are introduced to some of the challenges to an organism in sustaining life. They examine the cell as the structural and functional unit of life. They analyse types of adaptations that enhance the organism's survival in a particular environment and consider the role homeostatic mechanisms play in maintaining the internal environment. Students investigate how a diverse group of organisms form a living interconnected community that is adapted to, and utilises, the abiotic resources of its habitat.

**Unit 2: How continuity of life is maintained.**

Students focus on cell reproduction and the transmission of biological information from generation to generation. They examine the process of DNA replication and compare cell division in both prokaryotic and eukaryotic organisms. Students explore the mechanisms of asexual and sexual reproductive strategies. Students explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. They explore the relationship between genes, the environment and the regulation of genes in giving rise to phenotypes.

**Unit 3: How do cells maintain life?**

Students explore the importance of the insolubility of the plasma membrane in water and its differential permeability to specific solutes in defining the cell. They consider base pairing specificity, the binding of enzymes and substrates, the response of receptors to signalling molecules and reactions between antigens and antibodies to highlight the importance of molecular interactions based on the complementary nature of specific molecules. Students study the human immune system at the molecular level and the interactions between its components to provide immunity to a specific antigen.

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

Students investigate the relatedness between species and the impact of various change events on a population's gene pool. They examine change in life forms using evidence from palaeontology, biogeography, developmental biology and structural morphology. They explore the fields of comparative genomics, molecular homology and bioinformatics have resulted in evidence of change through measurements of relatedness between species. Students examine the structural and cognitive trends in the human fossil record and the interrelationships between human biological and cultural evolution.

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 16%

Unit 4 school-assessed coursework: 24%

Units 3 and 4 examination: 60%

# **VCE BUSINESS MANAGEMENT**

Study Design Accreditation Period: 2017 – 2021

## **ADVICE & PATHWAYS**

Students choosing to study Business Management should consider the following:

### **VCE Elective Charge**

There is no elective charge for VCE Business Management.

### **This subject will suit you if you enjoy:**

Discussions, creative and critical thinking, solving problems, planning projects, learning key facts, figures and vocabulary.

### **This subject can lead to a career pathway in the following areas:**

Business, Management, Marketing, Commerce, Accounting, Public Relations, Entrepreneur.

### **Other subjects that complement this subject include:**

- Accounting;
- IT Computing;
- Economics; and
- Legal Studies.

### **Further considerations...**

- There are no prerequisite subjects for VCE Business Management.

### **2017 VCE Business Management Teachers**

Year 11 Mrs Perera

Year 12 Mr O'Brien

## **UNIT DESCRIPTION**

### **Unit 1: Planning a business.**

In this unit students investigate how business ideas are created and how conditions can be fostered for new business ideas to emerge. Students explore some of the issues that need to be considered before a business can be established. Students consider factors from the external environment such as legal, political, social, economic, technological, global and corporate social responsibility factors and the effects these may have on the decisions made when planning a business. Students investigate how the internal environment relates to the external environment and the effects of this relationship on planning a business. Students explore the factors within the internal environment and consider how planning decisions may have an effect on the ultimate success of a business

### **Unit 2: Establishing a business.**

In this unit students are introduced to the legal requirements and financial considerations that are vital to establishing a business. They also consider the implications for the business if these requirements are not met. In this area of study students develop their understanding that marketing encompasses a wide range of management practices, from identifying the needs of the target market and establishing a brand presence, through to considerations on price, product features and packaging, promotion, place, people, physical evidence and processes. They also consider effective public relations strategies and the benefits and costs these can bring to a business. Students examine the staffing requirements that will meet the needs and objectives of the business and contribute to productivity and effectiveness. They research the processes undertaken by the business with relation to the recruitment, selection and

induction of staff. Students consider the opportunities that the skills and capabilities of staff can contribute to the business, the legal obligations that must be addressed and the relationship between employers and employees within a business.

### **Unit 3: Managing a business.**

Students investigate potential conflicts between and the different demands of stakeholders on a business. They examine a range of management styles and management skills that may be used when managing a business and apply these to contemporary business case studies. Students investigate essential factors such as motivation and training involved in effectively managing employees during their time at a business to ensure the business objectives are achieved. Students examine operations management and consider the best and most responsible use of available resources for the production of a quality final good or service in a competitive, global environment.

### **Unit 4: Transforming a business.**

Students investigate the ways a business can search for new business opportunities as a source of future business growth and consider current forces for change on a business. They apply Lewin's Force Field Analysis theory to contemporary case studies and consider approaches to strategic management, using Porter's (1985) Generic Strategies. Students consider the importance of leadership in change management, how leaders can inspire change and the effect change can have on the stakeholders in a business. They consider the principles of Senge's Learning Organisation and apply the Three Step Change Model (Lewin) in implementing change in a business. Using a contemporary business case study from the past four years, students evaluate business practice against theory, considering how corporate social responsibility can be incorporated into the change process.

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

# **VCE CHEMISTRY**

Study Design Accreditation Period: 2017 – 2021

## **ADVICE & PATHWAYS**

Students choosing to study Chemistry should consider the following:

### **VCE Elective Charge**

There is no elective charge for VCE Chemistry.

### **This subject will suit you if you enjoy:**

- Conducting experimental investigations;
- Reading and summarise scientific texts;
- Memorise details and facts such as the names and formulae and produce;
- Presenting and analysing data;
- Using specific vocabulary related to key chemical principles and concepts;
- Conducting independent and collaborative research; and
- Solving problems, many of which will require proficiency in Mathematics.

### **This subject can lead to a career pathway in the following areas:**

Chemistry leads to a range of careers and studies such as those in; the health and medical sciences, sports sciences, food sciences, agriculture, engineering, geological sciences, microbiology, oceanography and science education.

### **Other subjects that complement this subject include:**

Chemistry can be undertaken with a range of other studies in the sciences, humanities and mathematics areas; and can be seen as part of a balanced set of studies where breadth of experience is seen as worthwhile. It is typically studied with Physics or Biology, as well as Mathematics. Many students choose to study Chemistry together with a range of studies drawn from the humanities, HPE, Arts/Technology LOTE areas.

### Further considerations

- Students should always check with Careers Coordinator for Chemistry as a prerequisite study for tertiary courses.

### 2017 VCE Chemistry Teachers

Year 11 Mr Pravi Chandra

Year 12 Mr Pravi Chandra

## UNIT DESCRIPTION

Chemistry explores and explains the composition and behaviour of matter and the chemical processes that occur on Earth and beyond. Chemical models and theories are used to describe and explain known chemical reactions and processes. Chemistry underpins the production and development of energy, the maintenance of clean air and water, the production of food, medicines and new materials, and the treatment of wastes. VCE Chemistry enables students to explore key processes related to matter and its behaviour.

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

Students focus on the nature of chemical elements, their atomic structure and their place in the periodic table. They investigate the nature of metallic, ionic and covalent bonding. They study a variety of organic compounds and how they are grouped into distinct chemical families. Students apply quantitative concepts to molecular compounds, including mole concept and percentage composition by mass, and determine the empirical and molecular formulas of given compounds.

### Unit 2: What makes water such a unique chemical?

Students explore the physical and chemical properties of water, the reactions that occur in water and various methods of water analysis. They investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. Students are introduced to stoichiometry and to analytical techniques and instrumental procedures, and apply these to determine concentrations of different species in water samples, including chemical contaminants.

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

Students explore energy options and the chemical production of materials. They investigate the combustion of fuels, including the energy transformations involved, the use of stoichiometry to calculate the amounts of reactants and products involved in the reactions, and calculations of the amounts of energy released and their representations. Students consider the purpose, design and operating principles of galvanic cells, fuel cells and electrolytic cells. They investigate and apply the equilibrium law and Le Chatelier's principle to different reaction systems.

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

Students investigate the structural features, bonding, typical reactions and uses of the major families of organic compounds including those found in food. They consider the nature of the reactions involved to predict the products of reaction pathways and to design pathways to produce particular compounds from given starting materials. Students investigate key food molecules through an exploration of their chemical structures. Students use calorimetry as an investigative tool to determine the energy released in the combustion of foods.

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 16%

Unit 4 school-assessed coursework: 24%

Units 3 and 4 examination: 60%

# VCE COMPUTING

In Year 11 students undertake VCE Computing Units 1-2 and then can chose to undertake VCE Informatics Units 3-4 and/or VCE Software Development Units 3-4.

## VCE COMPUTING: UNITS 1 - 2

Study Design Accreditation Period: 2017 – 2021

### ADVICE & PATHWAYS

Students choosing to study Computing should consider the following:

#### VCE Elective Charge

There is a 2018 Elective Charge of \$40.00 for VCE Computing Unit 1-2.

#### This subject will suit you if you enjoy:

- Logical thinking and problem solving;
- Thinking outside the box;
- Creativity; and
- Mathematics.

#### This subject can lead to a career pathway in the following areas:

This subject will lead to entry into VCE Informatics Unit 3-4 and/or VCE Software Development Unit 3-4.

#### Other subjects that complement this subject include...

- Any Mathematics subject;
- Any Science subject;
- Product Design and Technology; and
- Visual Communication and Design

#### 2017 Computing Teachers:

Year 11      Mr John McLoughlin

### UNIT DESCRIPTION

#### Unit 1: Computing.

In this unit students focus on how data, information and networked digital systems can be used to meet a range of users' current and future needs. In Area of Study 1 students collect primary data when investigating an issue, practice or event and create a digital solution that graphically presents the findings of the investigation. In Area of Study 2, students examine the technical underpinnings of wireless and mobile networks, and security controls to protect stored and transmitted data, to design a network solution that meets an identified need or opportunity. They predict the impact on users if the network solution were implemented. In Area of Study 3, students acquire and apply their knowledge of information architecture and user interfaces, together with web authoring skills, when creating a website to present different viewpoints on a contemporary issue.

#### Unit 2: Computing.

In this unit students focus on data and how the application of computational, design and systems thinking skills support the creation of solutions that automate the processing of data. In Area of Study 1 students develop their computational thinking skills when using a programming or scripting language to create solutions. They engage in the design and development stages of the problem-solving methodology. In Area of Study 2 students develop a sound understanding of data and how a range of software tools can be used to extract data from large repositories and manipulate it to create visualisations that are clear, usable and attractive, and reduce the complexity of data. In Area of Study 3, students apply all stages of the problem-solving methodology to create a solution using database management software and explain how they are personally affected by their interactions with a database system.

# VCE INFORMATICS: UNITS 3 – 4

Study Design Accreditation Period: 2017 – 2021

## ADVICE & PATHWAYS

Students choosing to study Informatics should consider the following.

### VCE Elective Charge:

There is a 2018 Elective Charge of \$40.00 for VCE Informatics Unit 3-4.

### This subject will suit you if you enjoy:

- Logical thinking and problem solving;
- Thinking outside the box;
- Creativity; and
- Mathematics.

### This subject can lead to a career pathway in the following areas:

It provides a pathway to further studies in areas such as computer science, information systems, business, systems engineering, robotics, linguistics, logistics, database management and software development, and to careers in digital-technologies based areas such as information architecture, web-design, business analysis and project management. Computer Science, Software Engineering, Design and Technology, Science.

### Other subjects that complement this subject include:

- Any Mathematics subject;
- Any Science subject;
- Product Design and Technology; and
- Visual Communications and Design

### Further consideration:

Students can undertake both Unit 3 & 4 sequences in both VCE Informatics and VCE Software Development for credit towards the VCE.

### 2017 Informatics Teachers:

Year 12      Mr Blaise Northey

## UNIT DESCRIPTION

### Unit 3: Informatics.

Unit 3 focuses on data and how it is acquired, managed, manipulated and interpreted to meet a range of needs. In Area of Study 1, students investigate the way organisations acquire data using interactive online solutions, such as websites and applications (apps), and consider how users interact with these solutions when conducting online transactions. They examine how relational database management systems (RDBMS) store and manipulate data typically acquired this way. Students use software to create user flow diagrams that depict how users interact with online solutions, and acquire and apply knowledge and skills in the use of an RDBMS to create a solution.

### Unit 4: Informatics.

Unit 4 focuses on strategies and techniques for manipulating, managing and securing data and information to meet a range of needs. In Area of Study 1 students draw on the analysis and conclusion of their hypothesis determined in Unit 3, Outcome 2, and then design, develop and evaluate a multimodal, online solution that effectively communicates the conclusion and findings. The evaluation focuses on the effectiveness of the solution in communicating the conclusion and the reasonableness of the findings. Students use their project plan to monitor their progress and assess the effectiveness of their plan and adjustments in managing the project.

### **Levels of achievement for satisfactory completion.**

Unit 3 and 4

School-assessed coursework, school-assessed task and an end-of-year examination.

Unit 3 school-assessed coursework: 10%

Unit 4 school-assessed coursework: 10%

SAT (electronic folio): 30%

Units 3 and 4 examination: 50%

## **VCE SOFTWARE DEVELOPMENT: UNITS 3 - 4**

Study Design Accreditation Period: 2017 – 2021

### **ADVICE & PATHWAYS**

Students choosing to study Software Development should consider the following.

#### **VCE Elective Charge.**

There is a 2018 Elective Charge of \$40.00 for VCE Software Development Unit 3-4.

#### **This subject will suit you if you enjoy...**

- Logical thinking and problem solving;
- Thinking 'outside the box';
- Creativity; and
- Mathematics.

#### **This subject can lead to a career pathway in the following areas:**

Computer Science, Software Engineering, Design and Technology, Science.

#### **Other subjects that complement this subject include:**

- Any Mathematics subject;
- Any Science subject;
- Product Design and Technology; and
- Visual Communication and Design.

#### **Further consideration:**

Students are recommended to be concurrently enrolled in at least one VCE Mathematics Unit 3-4 sequence if choosing Software Development.

#### **2017 Software Development Teachers:**

Year 12      Mr Anthony Ciappara

## **UNIT DESCRIPTIONS**

### **Unit 3: Software Development.**

Unit 3 students focus on the application of a problem-solving methodology and underlying skills to create solutions using a programming language. Students develop a detailed understanding of the analysis, design and development stages of the problem-solving methodology. They respond to given software designs and develop a set of working modules, examining a range of software design. Students analyse a need or opportunity, plan and design a solution and develop computational, design and systems thinking skills. This forms the first part of a project that is completed in Unit 4.

### **Unit 4: Software Development.**

In this unit, students focus on how the information needs of individuals and organisations are met through the creation of purpose designed solutions used in a networked environment. There are two areas of study: Software solutions and Interactions and impact.

## Levels of achievement for satisfactory completion.

Unit 3 and 4

School-assessed coursework, school-assessed task and an end-of-year examination.

Unit 3 school-assessed coursework: 10%

Unit 4 school-assessed coursework: 10%

SAT (electronic folio): 30%

Units 3 and 4 examination: 50%

# VCE DANCE

Study Design Accreditation Period: 2014 – 2018

## Advice & Pathways

Students choosing to study Dance should consider the following.

### VCE Elective Charge.

There is no elective charge for VCE Dance.

### This subject will suit you if you enjoy:

- Practical activities;
- Choreography and Dance;
- Viewing and analysing;
- Discussion, research, creating and performing;
- Memorising vocabulary; and
- Collaboration (working with a group).

### This subject can lead to a career pathway in the following areas:

Dance allows students to develop a range of skills across the board including - but not limited to communication, planning, organising, teamwork, problem solving, and self-management. Study in Dance may also lead to career opportunities in Performance, Musical Theatre, Acting), Education, Dance Teaching in local dance schools, Physical Education, Fitness, Stage Management, Events Coordinator, Director, Choreographer, employment in the Arts Industry, performing Arts projects. It will also allow you to further continue doing something that you really enjoy!

### Other subjects that complement this subject include:

- English; and
- Physical Education;

### Further considerations

In Dance, there is an equal amount of practical and written work. Students will be expected to work on practical tasks in their own time, in addition to class time.

### 2017 VCE Dance Teachers

Year 11 Mrs Katherine Hawken

Year 12 Mrs Katherine Hawken

## UNIT DESCRIPTIONS

This study is designed to develop student's understanding and appreciation of dance as an art form that is based on the investigation and communication of ideas, concepts and themes. The study focuses on development of students' technical and physical skills, personal movement vocabulary, and application of choreographic and analytical principles.

### Unit 1.

This unit encourages the imaginative exploration of art elements, materials, techniques and working methods, demonstrating visual solutions to set tasks. Students examine artists in different societies and cultures, and historical periods, and develop their own points of view about the meanings and messages of the studied artworks. They explore the work of artists who have been inspired by ideas relating to personal and cultural identity.

## **Unit 2.**

This unit focuses on expanding students' personal movement vocabulary and choreographic skills through the exploration of the elements of movement, time, space and energy and the study of form. Students apply their understanding of form and the expressive capacity of the elements of movement to the dance-making and performing processes.

## **Units 3 and 4.**

In these units students learn a dance work created by another choreographer as well as perform a unified solo dance work. Students also document and analyse the dance-making and performance processes. They focus on twentieth and/or twenty-first century choreographers in their analysis of expressive movement and group structures.

## **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and two end-of-year examinations.

Units 3 and 4 school-assessed coursework: 25%

Units 3 and 4 written examination: 25%

Unit 4 Performance examination: 50%

# **VCE ENGLISH**

Study Design Accreditation Period: 2017 – 2020

## **ADVICE & PATHWAYS**

Students studying English should consider the following:

### **VCE Elective Charge.**

There is no elective charge for VCE English.

### **This subject will suit you if you enjoy:**

- Reading texts independently
- Learning about issues in society and Australia's role in them
- Writing extended responses and analysing texts
- Discuss and debating ideas

### **This subject can lead to a career pathway in the following areas...**

Journalism, Teaching, Acting, Historian, Speech Pathology, Marketing, Media, Publishing, Librarian, Writer, Editor.

### **Other subjects that complement this subject include:**

- Literature,
- English Language, and
- Every VCE subject that has a written communication component.

### **Further considerations**

- English is a prerequisite subject in over 80% of tertiary courses.

### **2017 English Teachers**

Year 11 Mrs Carmel Huggard, Mrs Karen Fraser, Mr Matthew McLaren, Mrs Rachel Crowe, Ms Holly Cooper

Year 12 Ms Allira Lang, Ms Holly Cooper, Mrs Carmel Huggard, Mr Matthew McLaren

## UNIT DESCRIPTION

This study aims to develop competence in the understanding and use of English for a variety of purposes in order to meet the demands of post-school employment, further education, and participation in a democratic society.

### Unit 1.

In this unit, students read and respond to texts analytically and creatively. They analyse arguments and the use of persuasive language in texts and create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts.

### Unit 2.

In this unit students compare the presentation of ideas, issues and themes in texts. They analyse arguments presented and the use of persuasive language in texts and create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts.

### Unit 3.

In this unit students read and respond to texts analytically and creatively. They analyse arguments and the use of persuasive language in texts.

### Unit 4.

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

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed task: 25%

Units 3 and 4 examination: 50%

## VCE ENGLISH LANGUAGE

Study Design Accreditation Period: 2016 – 2020

## ADVICE & PATHWAYS

Students choosing to study English Language should consider the following:

### VCE Elective Charge.

There is no elective charge for VCE English Language.

### This subject will suit you if you enjoy...

- Logical thinking.
- You have an interest in the world, in words, in language, education and politics.
- You prefer facts and evidence over subjective interpretation.
- You have an interest in understanding the systematic and scientific study of language.

### This subject can lead to a career pathway in the following areas:

Linguistics, Speech Pathology, Audiology, Science, Psychology, Marketing, Communications, Journalism, Advertising, Computer Science, Philosophy, Anthropology, Engineering.

### Other subjects that complement this subject include:

- Science,
- Mathematics,
- Philosophy, and
- History,

**Further considerations:**

You will be exposed to many dozens of different text types from multiple modes and sources. You will read an incredible amount and construct research and linguistic responses to the texts that you read. It involves writing analytical essays.

**2017 English Language Teachers**

Year 11 Mrs Rachel Crowe

Year 12 Mrs Rachel Crowe

**UNIT DESCRIPTION**

VCE English Language explores the ways in which language is used by individuals and groups and reflects our thinking and values. Informed by the discipline of linguistics, it provides students with metalinguistic tools to understand and analyse language use, variation and change.

**Unit 1: Language and Communication.**

Language is an essential aspect of human behaviour. Students consider the way language is organised and explore the nature of language through situational and cultural contexts. Students investigate the ability of children to acquire language and the stages of first and additional language acquisition across a range of subsystems.

**Unit 2: Language change.**

Languages are dynamic and change is an inevitable and continued process. Students consider factors contributing to change over time in the English language and factors contributing to the spread of English. They consider the linguistic and cultural repercussions of the spread of English in relation to diversification, geographic and ethnic varieties and the decline of indigenous languages.

**Unit 3: Language variation and purpose.**

Students investigate English in Australian contemporary society. They focus on the features of formal and informal language and how texts are influenced by the situational and cultural contexts in which they occur. Students also examine how language choices can indicate relationships, power and authority and purpose.

**Unit 4: Language variation and identity.**

Students focus on the role of language in establishing and challenging different identities. They explore how language can distinguish between 'us' and 'them', thus reinforcing the degree of social distance or solidarity that exists between people.

**Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework 25%

Units 3 and 4 examination: 50%

**VCE FOOD STUDIES**

Study Design Accreditation Period: 2017 – 2021

**ADVICE & PATHWAYS**

Students choosing to study Food Studies should consider the following

**VCE Elective Charge.**

In 2018 there is an elective charge of \$195.00 for Units 1 & 2.

In 2018 there is an elective charge of \$195.00 for Units 3 & 4.

**This subject will suit you if you enjoy:**

Practical food production, analysing diets and food products, debating world issues relating to food security, team and individual work and independent research.

**This subject can lead to a career pathway in the following areas:**

Nutritionist, dietician, consumer science, Food Studies educators, hospitality, food promotion, food product development, food stylist.

**Other subjects that complement this subject include:**

Psychology, Biology, Health and Human Development, Business Management, Geography, Chemistry, Visual Communications

**2017 Food Studies Teachers:**

Year 11 Mrs Jill Bailles

Year 12 Mrs Christine Kloas

## UNIT DESCRIPTION

This study takes an interdisciplinary approach to the exploration of food, with an emphasis on extending food knowledge and skills. Students build individual pathways to health and wellbeing through the application of practical food skills.

**Unit 1: Food origins.**

This unit focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world - examining the hunter-gatherer system to today's urban living. Students also study Australian indigenous food prior to European settlement and the influence of migration on Australian cuisine.

**Unit 2: Food makers.**

Students investigate food systems in contemporary Australia. They compare commercial food production industries with food produced in small-scale domestic settings. They investigate the capacity of industry to provide a safe, high-quality food.

**Unit 3: Food in daily life.**

This unit explores the science of food. Students investigate the physiology of eating and microbiology of digesting, and the absorption and utilisation of macronutrients. They apply food science terminology relating to chemical changes that occur during food preparation and cooking.

**Unit 4: Food challenges, issues and futures.**

Students examine debates about global and Australian food systems - issues such as the environment, ethics, farming practices, use of technologies and the challenges of food security. They also develop responses to food information and misinformation and how to empower consumers to make discerning food choices.

**Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 30%

Unit 4 school-assessed coursework: 30%

Units 3 and 4 examination: 40%

# VCE HEALTH AND HUMAN DEVELOPMENT

Study Design Accreditation Period: 2017 – 2021.

## ADVICE & PATHWAYS

Students choosing to study Health & Human Development should consider the following.

**VCE Elective Charge.**

There is no elective charge for VCE Health & Human Development.

**This subject will suit you if you enjoy:**

- Lots hands on discussion;
- Analysis of data and linking of key material; and
- Memorising specific definitions and understandings.

**This subject can lead to a career pathway in the following areas:**

The career prospects from the subject are broad. In terms of university courses it leads to courses such as (but not limited to); Health Science, Health Promotion, Nursing, International Studies and Aid, Nutrition, Community Health Research and Policy Development, Humanitarian Aid Work, Allied Health Practices, Education and other types of health professions.

In terms of career pathways examples (not limited to this list) include; Nutritionist, Health Promotion Project Officer, Aid Worker, Nurse, Community Health Officer, Youth Worker.

**Other subjects that complement this subject include:**

- Physical Education
- Food Studies
- Psychology
- Biology

**2017 Health & Human Development Teachers**

Year 11 Ms Ando Allen, Mrs Lyndal Ford, Mrs Christine Kloas

Year 12 Mrs Lyndal Ford, Ms Jessie Hawksworth, Mr Simon Andriessen

**UNIT DESCRIPTION**

Health and Human Development provides students with the skills and knowledge to make informed decisions about their own health and to recognise the importance of health in society. In undertaking this study, they will be able to actively participate in making appropriate choices that allow for good health and be able to seek appropriate advice. Health and Human Development enables students to understand the current ideologies of health and human development in contemporary society. Students critically evaluate the health and development of the individual across the lifespan in the context of both Australia's and global health and human development.

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

In this unit students are introduced to the concepts of health and individual human development. Students develop an understanding of the physical, social, emotional and intellectual changes associated with the developmental stage of youth. Students investigate one health issue in detail and analyse personal, community and government strategies or programs that affect youth health and individual human development. They also explore the importance of nutrition for the provision of energy and growth.

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

This unit focuses on prenatal health and on the lifespan stages of childhood and adulthood. Students study the physical changes that occur from conception to birth. Students develop an understanding of the health and individual development of Australia's children and adults, including the elderly. They explore the physical, social, emotional and intellectual changes that occur. Students will identify a range of health issues that are having an impact on Australia's health system.

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

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

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

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

#### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## **VCE HISTORY**

Study Design Accreditation Period: 2017 – 2021.

### **ADVICE & PATHWAYS**

Students choosing to study History should consider the following.

#### **VCE Elective Charge.**

There is no elective charge for VCE History.

#### **This subject will suit you if you enjoy:**

Independent thinking, reading, independent research, and developing critical thinking skills and being able to look at sources and examine their strengths and weaknesses.

#### **This subject can lead to a career pathway in the following areas:**

History is a great pathway into many higher education courses, including Arts degrees, and other Social Sciences. Employers like it because it demonstrates good independent learning skills, research, and critical thinking skills. Employment opportunities include Historian, Public Servant, Teacher, Archivist, Journalist.

#### **Other subjects that complement this subject include...**

- Australian Global Politics;
- Legal Studies;
- Art; and
- Other analytical and investigative subjects.

#### **Further considerations**

'To understand our present and future, we must understand our past. '

#### **2017 History Teachers**

Year 11 Mr Rafal Kaplon

Year 12 Mrs Jane Lewis

## **UNIT DESCRIPTION**

History involves inquiry into human action in the past, to make meaning of the past using primary sources as evidence. As historians ask new questions, revise interpretations or discover new sources, fresh understandings come to light. Although history deals with the particular – specific individuals and key events – the potential scope of historical inquiry is vast and formed by the questions that historians pursue, the availability of sources and the capacity of historians to interpret those sources. VCE History reflects this range of inquiry by enabling students to engage with a range of times, people, places and ideas.

**Unit 1: Twentieth Century History. 1918 – 1939.**

In Unit 1 students explore the nature of political, social and cultural change in the period between the world wars. World War 1 is regarded by many as marking the beginning of twentieth century history since it represented such a complete departure from the past and heralded changes that were to have an impact for decades to come. 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. These changes affected developments in Europe, the USA, Asia, Africa and the Middle East. Economic instability caused by the Great Depression also contributed to the development of political movements. Despite ideals about future peace, reflected in the establishment of the League of Nations, the world was again overtaken by war in 1939. The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. In Germany, the persecution of the Jewish people became intensified. In the USSR, millions of people were forced to work in state-owned factories and farms and had limited personal freedom. Japan became increasingly militarised and anti-western. In the USA, the consumerism and material progress of the 1920s was tempered by the Great Crash of 1929. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political, economic and social changes.

**Unit 2: Twentieth Century History. 1945 – 2000.**

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century. The establishment of the United Nations 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. Despite internationalist moves, the second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War. The period also saw challenge and change to the established order in many countries. The continuation of moves towards decolonisation led to independence movements in former colonies in Africa, the Middle East, Asia and the Pacific. New countries were created and independence was achieved through both military and diplomatic means. Old conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

**Unit 3: Transformations: Colonial society to nation**

In this unit students explore the transformation of the Port Phillip District (later Victoria) from the 1830s through to the end of the tumultuous gold rush decade in 1860. They consider the dramatic changes introduced as the British colonisers swiftly established themselves, taking possession of the land and then its newly discovered mineral riches. Students examine transformations in the way of life of the Aboriginal peoples and to the environment as the European society consolidated itself. They also consider how new visions for the future created by the gold rush and the Eureka rebellion further transformed the new colony. Students explore the type of society Australians attempted to create in the early years of the newly federated nation. Much of the legislation debated and passed by the Commonwealth Parliament was relatively advanced and Australia was seen as a social laboratory exploring new forms of rights and benefits for its citizens. Students evaluate the effect that Australian involvement in World War 1 had on the country's egalitarian and socially progressive aspirations.

**Unit 4: Transformations: Old certainties and new visions.**

In this unit students investigate the continuing development of the nation in the early part of the twentieth century and the dramatic changes that occurred in the latter part of the century. After World War 1 the process of nation building was renewed. However, world events soon intruded again into the lives of all Australians. The economic crisis of the 1930s followed by another world war redirected the nation's priorities for a time as it struggled to regain economic stability and defeat its military enemies. The experience of both the Depression and World War 2 gave rise to renewed thinking by Australians about how to achieve the type of society envisaged at the time of Federation. In Area of Study 1 students focus on one of the crises faced by the nation: The Great Depression 1929 –1939 or World War Two 1939 –1945.

In Area of Study 2, students explore social, economic and political changes in the latter part of the twentieth century that collectively challenged and/or overturned much of Australia's earlier carefully constructed social and economic fabric. Students examine two changes drawn from: Australia's involvement in the Vietnam War, Aboriginal land rights, equality for women, new patterns of immigration and/or a global economy. In this unit students explore the transformation of the Port Phillip District (later Victoria) from the 1830s through to the end of the tumultuous gold rush decade in 1860. They consider the dramatic changes introduced

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## **VCE LEGAL STUDIES**

Study Design Accreditation Period: 2017 – 2021

### **ADVICE & PATHWAYS**

Students choosing to study Legal Studies should consider the following:

#### **VCE Elective Charge.**

There is no elective charge for VCE Legal Studies.

#### **This subject will suit you if you enjoy:**

- Memorising facts and vocabulary;
- Argumentative discussion; and
- Being process driven.
- Writing well researched and rational essays

#### **This subject can lead to a career pathway in the following areas:**

Solicitor, Barrister, Judge, Magistrate, Clerk of Courts, Para-Legal, Police Officer and Correctional Services.

#### **Other subjects that complement this subject include:**

- Business Management and
- Australian & Global Politics.

#### **Further considerations**

Unit 1 focuses on Criminal Law and Unit 2 focuses on Civil Law

#### **2017 Legal Studies Teachers**

Year 11 Mr Brett McIlwraith, Mr Leigh O'Brien

Year 12 Mr Leigh O'Brien

### **UNIT DESCRIPTION**

This study is about the way the law relates to and serves both individuals and the community. It focuses on developing an understanding of the way in which law is generated, structured and operates in Australia.

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

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

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

Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil laws in society and how it affects them as individuals. The unit also focuses on the resolution of civil disputes through judicial determination and alternative methods in courts, tribunals and independent bodies.

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

In this unit students develop an understanding of the institutions that determine our laws, and their law-making powers and processes. They undertake an informed evaluation of the effectiveness of law-making bodies and examine the need for the law to keep up to date with changes in society. Central to the investigation is the role played by the Commonwealth Constitution. Students learn of the role played by the Constitution and the High Court in interpreting and enforcing the Constitution, and ensuring that parliaments do not act outside their areas of power.

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

Students examine the institutions that adjudicate criminal cases and civil disputes. They investigate methods of dispute resolution that can be used. Students investigate the processes and procedures followed in courtrooms and develop an understanding of the adversary system of trial and the jury system, as well as pre-trial and post-trial procedures that operate in the Victorian legal system.

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## **VCE LITERATURE**

Study Design Accreditation Period: 2017 – 2021

### **ADVICE & PATHWAYS**

Students choosing to study English Literature should consider the following

#### **VCE Elective Charge.**

There is no elective charge for VCE Literature.

#### **This subject will suit you if you enjoy:**

Reading, writing, analysing how writers create meaning, discussing, independent learning, research, engaging with novels, poetry, plays, short stories, film.

#### **This subject can lead to a career pathway in the following areas:**

Journalism, Teaching, Acting, Historian, Speech Pathology, Marketing, Media, Publishing, Librarian, Writer, Editor.

#### **Other subjects that complement this subject include...**

- English, and
- Philosophy

#### **Further considerations**

You need to be an open-minded reader who likes a challenge. You will be required to read adult texts. You need to enjoy reading and writing.

#### **2017 Literature Teachers**

Year 11 Mrs Carmel Huggard

Year 12 Mrs Carmel Huggard

### **UNIT DESCRIPTION**

Literature involves the study and enjoyment of a wide range of literary texts - classical, popular, traditional and modern. Its distinctive focus is on the use of language to illuminate and give insight into the nature of experience. Literature is an interactive study between the text, the social, political and economic context in which the text was produced, and the experience of life and of literature that the reader brings to the text.

**Unit 1: Approaches to literature.**

In this unit students focus on the ways in which the interaction between text and reader creates meaning. Students respond critically, creatively and reflectively to the ideas and concerns of texts and gain insights into how texts function as representations of human experience.

**Unit 2: Context and connections.**

In this unit students explore the ways literary texts connect with each other and with the world. They deepen their examination of the ways their own culture and the cultures represented in texts can influence their interpretations and shape different meanings. Students analyse the similarities and differences across texts and establish connections between them.

**Unit 3: Form and transformation.**

In this unit students investigate ways writers adapt and transform texts and how meaning is affected as texts are adapted and transformed. They consider how the perspectives of those adapting texts may inform or influence the adaptations.

**Unit 4: Interpreting texts.**

In this unit students develop critical and analytic responses to texts. They consider the context of their responses to texts as well as the ideas explored in the texts, the style of the language and points of view. They investigate literary criticism informing both the reading and writing of texts.

**Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## VCE MATHEMATICS

At Patterson River Secondary College, there are four levels of mathematics offered at VCE Unit 1-2. These are:

- Foundation Maths Units 1-2
- General Maths Units 1-2
- General Maths (Advanced) Units 1-2
- Maths Methods (CAS) Units 1-2.

At Patterson River Secondary College, there are three levels of mathematics offered at VCE Unit 3-4 level. These are:

- Further Maths Units 3-4
- Maths Methods (CAS) Units 3-4
- Specialist Maths Units 3-4.

### Pre-requisites.

MATHS SUBJECT	YEAR 11 PREREQUISITES	YEAR 12 PREREQUISITES
Foundation Maths	None	This course does not lead to any year 12 maths course
General Maths	A minimum test average of C in Year 10 Maths Methods or Maths General	This course leads to Year 12 Further Maths.
General Maths (Advanced)	Often taken by advanced students in Year 10, but can be taken by students in Year 11 doing Maths Methods CAS 1&2	This course taken with Maths Methods CAS units 1&2 is strongly recommended for Year 12 Maths Methods CAS and Specialist Maths in 2012.
Maths Methods	A minimum test average of B in Year 10 Maths Methods CAS	This course leads to Further Maths, Maths Methods and, if taken with General Maths (Advanced), Specialist Maths at Year 12.

# VCE FOUNDATION MATHS

Study Design Accreditation Period: 2017 – 2020

## UNIT DESCRIPTION

### Units 1 -2: Foundation Maths

Foundation Mathematics provides for the continuing mathematical development of students entering VCE and who do not necessarily intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. This course is designed to complement General Mathematics and Mathematical Methods. Students completing this course would need to undertake additional targeted mathematical study in order to attempt Further Mathematics Units 3 and 4. In Foundation Mathematics there is a strong emphasis on the use of mathematics in practical contexts encountered in everyday life in the community, at work and at study. The areas of study for Units 1 and 2 of Foundation Mathematics are 'Space, shape and design', 'Patterns and number', 'Data' and 'Measurement'. All four areas of study are to be completed over the two units. The content should be developed using contexts present in students' other studies, work and personal or other familiar situations. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

### 2017 Foundation Maths Teachers

Year 11      Mr Daniel Bradshaw

# VCE GENERAL MATHS: UNITS 1 – 2

Study Design Accreditation Period: 2017 – 2021

## Unit Description

### General Mathematics Units 1 and 2

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

For Units 1 and 2, to suit the range of students entering the study, content must be selected from the six areas of study using the following rules:

- for each unit, content covers four or more topics in their entirety, selected from at least three different areas of study
- courses intended as preparation for study at the Units 3 and 4 level should include a selection of topics from areas of study that provide a suitable background for these studies
- topics can also be selected from those available for Specialist Mathematics Units 1 and 2
- content covered from an area of study provides a clear progression in knowledge and skills from Unit 1 to Unit 2. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic, financial and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

### 2017 General Maths Teachers

Year 11      Mr Craig Waldron, Mr Daniel Bradshaw, Mr Danny Van Vliet, Mrs Kathryn McDonald

# VCE FURTHER MATHS: UNITS 3 – 4

Study Design Accreditation Period: 2017 – 2021

## UNIT DESCRIPTION

### Further Mathematics Units 3 and 4

Further Mathematics consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. The Core comprises 'Data analysis' and 'Recursion and financial modelling'. The Applications comprises two modules to be completed in their entirety, from a selection of four possible modules: 'Matrices', 'Networks and decision mathematics', 'Geometry and measurement' and 'Graphs and relations'. 'Data analysis' comprises 40 per cent of the content to be covered, 'Recursion and financial modelling' comprises 20 per cent of the content to be covered, and each selected module comprises 20 per cent of the content to be covered. Assumed knowledge and skills for the Core are contained in the General Mathematics Units 1 and 2 topics: 'Computation and practical arithmetic', 'Investigating and comparing data distributions', 'Investigating relationships between two numerical variables', 'Linear graphs and modelling', 'Linear relations and equations', and 'Number patterns and recursion'. For each module there are related topics in General Mathematics Units 1 and 2.

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, and graphs. They should have a facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic, financial and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

### 2017 Further Maths Teachers

Year 12 Mrs Amilia Perera, Mr Nick Koukoulas, Ms Caterina Cosma

# VCE MATHS METHODS (CAS): UNITS 1 – 4

Study Design Accreditation Period: 2017 – 2021

## UNIT DESCRIPTION

Mathematics is the study of relationships and patterns in number, logic, space and structure. It provides both a framework for thinking and a means of symbolic communication that is powerful, logical, concise and unambiguous and a means by which people can understand and manage their environment. Essential mathematical activities include abstracting, applying, investigating, modelling and problem solving. A CAS calculator is an essential tool in all VCE Mathematics units.

### Unit 1

Mathematical Methods Units 1 and 2 provide an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. They are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units. The focus of Unit 1 is the study of simple algebraic functions, and the areas of study are 'Functions and graphs', 'Algebra', 'Calculus' and 'Probability and statistics'. At the end of Unit 1, students are expected to have covered the content outlined in each area of study, with the exception of 'Algebra' which extends across Units 1 and 2. This content should be presented so that there is a balanced and progressive development of skills and knowledge from each of the four areas of study with connections between and across the areas of study being developed consistently throughout both Units 1 and 2.

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

## **Unit 2**

In Unit 2 students focus on the study of simple transcendental functions and the calculus of simple algebraic functions. The areas of study are 'Functions and graphs', 'Algebra', 'Calculus', and 'Probability and statistics'. At the end of Unit 2, students are expected to have covered the material outlined in each area of study. Material from the 'Functions and graphs', 'Algebra', 'Calculus', and 'Probability and statistics' areas of study should be organised so that there is a clear progression of skills and knowledge from Unit 1 to Unit 2 in each area of study.

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

## **Mathematical Methods Units 3 and 4**

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

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

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

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

## **2017 Maths Methods Teachers**

Year 11        Mrs Kathryn McDonald  
Year 12        Mr Peter Zahra.

# VCE SPECIALIST MATHS: UNITS 3 – 4

Study Design Accreditation Period: 2017 – 2021

## UNIT DESCRIPTION

### Specialist Maths Units 3 and 4.

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

Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and skills from Mathematical Methods Units 1 and 2, the key knowledge and skills from Specialist Mathematics Units 1 and 2 topics 'Number systems and recursion' and 'Geometry in the plane and proof', and concurrent or previous study of Mathematical Methods Units 3 and 4. Together these cover the assumed knowledge and skills for Specialist Mathematics, which are drawn on as applicable in the development of content from the areas of study and key knowledge and skills for the outcomes. In Unit 3 a study of Specialist Mathematics would typically include content from 'Functions and graphs' and a selection of material from the 'Algebra', 'Calculus' and 'Vectors' areas of study. In Unit 4 this selection would typically consist of the remaining content from the 'Algebra', 'Calculus', and 'Vectors' areas of study and the content from the 'Mechanics' and 'Probability and statistics' areas of study.

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

## VCE MUSIC PERFORMANCE

Study Design Accreditation Period: 2017 – 2021

## ADVICE & PATHWAYS

Students choosing to study Music should consider the following:

### VCE Elective Charge.

There is no elective charge for VCE Music Performance.

### This subject will suit you if you enjoy:

- Practical performance;
- Musical composition;
- Score reading and listening analysis;
- Exploring ways of refining performances;
- Developing skills in music theory and practical music tasks.

### This subject can lead to a career pathway in the following areas:

- Bachelor of Music, including performance, composition and musicology;
- Live performance opportunities;
- Music therapy;
- Teaching.

### Other subjects that complement this subject include:

All subjects.

### **Further considerations:**

In music, students must participate in a school ensemble to satisfy the ensemble requirement of the performance outcomes. Students entering Unit 1 and 2 Music Performance must be auditioned if they did not complete classroom music in years 7 to 10.

### **2017 Music Performance Teachers**

Year 11 Mr Steve Mitchelmore

Year 12 Mr Steve Mitchelmore

## **UNIT DESCRIPTION**

Music offers students opportunities to engage in performing, creating and studying music that is representative of diverse genres, styles and cultures. Students develop knowledge of stylistic, aesthetic and expressive qualities and characteristics of music and develop their ability to communicate their understanding through music making: performing, composing, arranging and/or improvising; and musicianship: aural perception, analysis and music language.

### **Units 1 & 2: Music Performance.**

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

### **Units 3 & 4: Music Performance.**

These units prepare students to present convincing performances of group and solo works. Students select a program of group and solo works representing a range of styles and diversity of character for performance. They develop instrumental techniques that enable them to interpret the works and expressively shape their performances. They also develop an understanding of performance conventions they can use to enhance their performances. Students develop skills in unprepared performance, aural perception and comprehension, transcription, music theory and analysis. Students study ways in which Australian performers interpret works that have been created since 1910 by Australian composers/songwriters.

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and two end-of-year examinations.

Unit 3 School-assessed Coursework: 20%

Unit 4 School-assessed Coursework: 10%

End-of-year performance examination: 50%

End-of-year aural and written examination: 20%

# **VCE OUTDOOR & ENVIRONMENTAL STUDIES**

Study Design Accreditation Period: 2018 – 2022

## **ADVICE & PATHWAYS**

Students choosing to study Outdoor and Environmental Studies should consider the following.

### **VCE Elective Charge.**

In 2018 there is an elective charge of \$500.00 for Units 1 & 2.

In 2018 there is an elective charge of \$500.00 for Units 3 & 4.

### **This subject will suit you if you enjoy:**

- Drawing information from experiences and interactions with outdoor environments.
- Reflecting on these environments and discussing sustainable environmental practices; and
- Remembering, understanding, applying, reflection and researching.

**This subject can lead to a career pathway in the following areas:**

The career prospects from the subject are broad. In terms of university courses it leads to courses such as Environmental Science, Outdoor Education, Sport and Outdoor Recreation.

In terms of career pathways examples are not limited to this list but could include; Environmental Conservationist, National Park Ranger, Outdoor Recreation Officer, Outdoor Education Teacher, Environmental Scientist and Aboriginal Education Officer.

**Other subjects that complement this subject include:**

- Physical Education;
- Health and Human Development; and
- Biology.

**Further considerations:**

There is an expectation and assessment requirements that you attend all of the camps and practical experiences. In combination with this there is a significant theoretical component to complement the practical experiences, which focuses not only on outdoor recreation but also heavily on the environment and human interaction with the environment.

**2017 Outdoor & Environmental Studies Teachers**

Year 11 Mr Cameron Cox

Year 12 Mr Cameron Cox

## UNIT DESCRIPTION

VCE Outdoor and Environmental Studies provides students with the skills and knowledge to safely participate in activities in outdoor environments and to respect and value diverse environments. The blend of direct practical experience of outdoor environments with more theoretical ways of knowing, enables informed understanding of human relationships with nature. Historically, humans have modified outdoor environments to meet survival, commercial, conservation and recreation needs. For many, outdoor environments have become places of adventure, relaxation, scientific study, social action and enterprise. Outdoor environments also provide space for connectedness with nature and opportunities for reflection upon the past, present and future. These varying values and approaches generate differing impacts and can cause pressures and tensions between user groups, leading to issues concerning the preservation and sustainability of outdoor environments.

**Unit 1: Exploring outdoor experiences.**

This unit examines some of the ways in which humans understand and relate to nature through experiences of outdoor environments. The focus is on individuals and their personal responses to and experiences of outdoor environments. Students are provided with the opportunity to explore the many ways in which nature is understood and perceived. Students develop a clear understanding of the range of motivations for interacting with outdoor environments and the factors that affect an individual's access to outdoor experiences and relationships with outdoor environments. Through outdoor experiences, students develop practical skills and knowledge to help them live sustainably in outdoor environments. Students understand the links between practical experiences and theoretical investigations, gaining insight into a variety of responses to, and relationships with, nature.

**Unit 2: Discovering outdoor environments.**

This unit focuses on the characteristics of outdoor environments and different ways of understanding them, as well as the human impacts on outdoor environments. In this unit students study nature's impact on humans, as well as the ecological, social and economic implications of human impact on outdoor environments. Students develop a clear understanding of the impact of technologies and changing human lifestyles on outdoor environments. Students examine a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention. They develop the practical skills required to minimise human impact on outdoor environments. Students are provided with practical experiences as the basis for comparison between outdoor environments and reflection to develop theoretical knowledge about natural environments

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

Students explore how Australians have understood and interacted with outdoor environments over time. Students examine the unique nature of Australian outdoor environments and investigate a range of human relationships with

outdoor environments, from various Indigenous cultural experiences, through to the influence of a number of major events and issues subsequent to European settlement. Students examine current relationships between humans and outdoor environments. They examine a number of ways outdoor environments are portrayed in different media; the dynamic nature of relationships between humans and their environment; and the social, cultural, economic and political factors that influence these relationships. Students engage in practical outdoor experiences that enable them to further their understanding of these key concepts.

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

This area of study explores the contemporary state of environments in Australia and the importance of natural environments for individuals and society. Students examine the nature of sustainability and, using key indicators, evaluate the health of outdoor environments. They investigate current and potential impacts of damage to outdoor environments. Students focus on the sustainability of environments in order to support the future needs of ecosystems, individuals and society, and the skills needed to be an environmentally responsible citizen. Students develop an understanding that management strategies and policies, together with legislation and agreements, contribute to maintaining the health and sustainability of outdoor environments in contemporary Australian society. Students use their outdoor experiences to enhance their understanding and skills

#### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## **VCE PHILOSOPHY**

Study Design Accreditation Period: 2014 – 2018

### **ADVICE & PATHWAYS**

Students choosing to study Philosophy should consider the following:

#### **VCE Elective Charge.**

There is no elective charge for VCE Philosophy.

#### **This subject will suit you if you enjoy:**

- Thinking;
- 'Community of inquiry'-based learning;
- Lots of group discussion;
- Independent research tasks, reading texts and articles and written reflections; and
- Being challenged because there is no clear 'right or wrong' answer.

#### **This subject can lead to a career pathway in the following areas:**

Law, Arts, Fine Arts, any Medical field where they have to consider ethics eg: Biology, Psychology, Government. The skills developed in Psychology also assist in design and planning or anything where you need to think logically.

#### **Other subjects that complement this subject include:**

- English (any);
- Australian and Global Politics;
- Sciences- where you need to consider the validity of science and truth; and
- Psychology - looking at the brain.

#### **Further considerations**

Students need to keep an open mind to study Philosophy and be prepared to discuss and write about philosophical issues.

## 2017 VCE Philosophy Teachers

Year 11 Mr Kris Wakefield

Year 12 Mr Kris Wakefield

## UNIT DESCRIPTION

Philosophy is the oldest academic discipline. It is broadly concerned with ethics, epistemology (philosophy of knowledge) and metaphysics. It is the founding discipline of logic, and continues to develop and refine the tools of critical reasoning, influencing approaches in mathematics, science and the humanities.

### Unit 1: Existence, knowledge and reasoning.

Unit 1 investigates questions such as: What is the nature of reality? How can we acquire certain knowledge? These are some of the questions that have challenged humans for millennia and underpin ongoing endeavours in areas as diverse as science, justice and the arts. This unit engages students with fundamental philosophical questions through active, guided investigation and critical discussion of two key areas of philosophy: epistemology and metaphysics. The emphasis is on philosophical inquiry – ‘doing philosophy’ – and hence the study and practice of techniques of logic 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. Students investigate relevant debates in applied epistemology and metaphysics, and consider whether the philosophical bases of these debates continue to have relevance in contemporary society and our everyday lives.

### Unit 2: Questions of value.

In Unit 2, the focus shifts to understanding how humans frame judgements and understand values. 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 invites students to explore these questions in relation to different categories of value judgment within the realms of morality, political and social philosophy and aesthetics. Students also explore ways in which viewpoints and arguments in value theory can inform and be informed by contemporary debates.

### Unit 3: Minds, bodies and persons.

Unit 3 considers basic questions regarding the mind and the self through two key questions: Are human beings more than their bodies? Is there a basis for the belief that an individual remains the same person over time? Students critically compare the viewpoints and arguments put forward in set texts from the history of philosophy to their own views on these questions and to contemporary debates. It is important for students to understand that arguments make a claim supported by reasons and reasoning, whereas a viewpoint makes a claim without necessarily supporting it with reasons or reasoning. Philosophical debates encompass philosophical questions and associated viewpoints and arguments within other spheres of discourse such as religion, psychology, sociology and politics.

### Unit 4: The good life.

Unit 4 considers the crucial question of what it is for a human to live well. What does an understanding of human nature tell us about what it is to live well? What is the role of happiness in a well lived life? Is morality central to a good life? How does our social context impact on our conception of a good life? In this unit, students explore texts by both ancient and modern philosophers that have had a significant impact on contemporary western ideas about the good life. Students critically compare the viewpoints and arguments in set texts from both ancient and modern periods to their own views on how we should live, and use their understandings to inform their analysis of contemporary debates. It is important for students to understand that arguments make a claim supported by reasons and reasoning, whereas a viewpoint makes a claim without necessarily supporting it with reasons or reasoning. Philosophical debates encompass philosophical questions and associated viewpoints and arguments within other spheres of discourse such as religion, psychology, sociology and politics.

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

# VCE PHYSICAL EDUCATION

Study Design Accreditation Period: 2017 – 2020

## ADVICE & PATHWAYS

Students choosing to study Physical Education should consider the following:

### VCE Elective Charge.

In 2018 there is an elective charge of \$80.00 for Units 1 & 2.

In 2018 there is an elective charge of \$80.00 for Units 3 & 4.

### This subject will suit you if you enjoy:

Developing an understanding of theoretical and practical understanding of the body and physical performance and then applying this knowledge in a practical context.

### This subject can lead to a career pathway in the following areas:

University courses it leads to: Exercise Science, Human Movement, Physiotherapy and other related courses, Health Sciences, Sports Management, Community Health courses and Physical Education Teaching.

Career pathways examples: Sport Scientist, Strength and Conditioning Coach, PE Teacher, Health Promotion Officer, Community Health Project Officer, Sports Coach, Fitness Instructor, Personal Trainer, Physiotherapist, Sports Administration, Massage Therapist.

### Other subjects that complement this subject include:

- Health and Human Development;
- Biology; and
- Outdoor and Environmental Studies;

### Further considerations:

Students will be expected to participate regularly in physical activities throughout the units.

### 2017 Physical Education Teachers

Year 11 Mrs Lyndal Ford, Mr Aaron Jack

Year 12 Ms Jessie Hawksworth

## UNIT DESCRIPTION

Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between motor learning and psychological, biomechanical, physiological and sociological factors that influence physical performances, and participation in physical activity. It integrates theoretical knowledge with practical application through participation in physical activities.

### Unit 1: The Human Body in motion.

Students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. They consider the implications of the use of legal and illegal practices to improve the performance.

### Unit 2: Physical activity, sport and society.

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

### Unit 3: Physical activity, participation and physiological performance.

This unit introduces students to an understanding of physical activity and sedentary behaviour from a participatory and physiological perspective. Students apply various methods to assess physical activity and sedentary levels. Students will then explore the acute responses of the body to exercise, how energy is created in the muscle and the physiological causes of fatigue.

#### **Unit 4: Enhancing performance.**

Improvements in performance, in particular fitness, depend on the ability of the individual or coach to gain, apply and evaluate knowledge and understanding of training. Students undertake an activity analysis. Using the results of the analysis, they then investigate the required fitness components and participate in a training program. They also evaluate other performance enhancing practices such as nutrition and recovery techniques.

#### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 25%

Unit 4 school-assessed coursework: 25%

Units 3 and 4 examination: 50%

## **VCE PHYSICS**

Study Design Accreditation Period: 2016 – 2020

### **ADVICE & PATHWAYS**

Students choosing to study Physics should consider the following:

#### **VCE Elective Charge.**

There is no elective charge for VCE Physics.

#### **This subject will suit you if you enjoy:**

- Conducting experimental investigations;
- Reading and summarising scientific texts;
- Memorising details and facts such as the names and formula;
- Presenting and analysing data often requiring mathematical interpretation;
- Using specific vocabulary related to key physical principles and concepts;
- Conducting independent and collaborative research; and
- Solving problems, most of which will require proficiency in Mathematics.

#### **This subject can lead to a career pathway in the following areas:**

Physics leads to a range of careers and studies such as those in the Health and Medical Sciences, Telecommunications, Meteorology, Architecture, a wide variety of Engineering disciplines, Geophysical sciences, Microbiology, Oceanography and Science Education.

#### **Other subjects that complement this subject include:**

Physics can be undertaken with a range of other studies in the Sciences, Humanities and Mathematics areas; and can be seen as part of a balanced set of studies where breadth of experience is seen as worthwhile. It is typically studied with Mathematics. Many students choose to study Physics together with a range of studies drawn from mathematics, humanities, HPE, Arts/ Technology and LOTE areas.

#### **Further considerations**

- Students should always check with Careers Coordinator for Physics as a prerequisite study for tertiary courses.

#### **2017 Physics Teachers:**

Year 11 Mr Danny Van Vliet

Year 12 Mr Nick Koukoulas

## UNIT DESCRIPTION

Physics is the systematic study of the physical universe, ranging from the minute building blocks of matter to the broad expanses of the Universe. Students use thermodynamic principles to explain phenomena related to changes in thermal energy. They apply thermal laws when investigating energy transfers within and between systems, and assess the impact of human use of energy on the environment. Students examine the motion of electrons and explain how it can be manipulated and utilised. They explore current scientifically accepted theories that explain how matter and energy have changed since the origins of the Universe.

### Unit 1: What ideas explain the physical world?

In this area of study students observe motion and explore the effects of balanced and unbalanced forces on motion. They analyse motion using concepts of energy, including energy transfers and transformations, and apply mathematical models during experimental investigations of motion. They describe and analyse graphically, numerically and algebraically the motion of an object, using specific physics terminology and conventions.

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

In this unit students observe motion and explore the effects of balanced and unbalanced forces on motion. They analyse motion using concepts of energy, including energy transfers and transformations, and apply mathematical models during experimental investigations of motion. They describe and analyse graphically, numerically and algebraically the motion of an object, using specific physics terminology and conventions.

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

In this unit students explore the importance of energy in explaining and describing the physical world. They examine the production of electricity and its delivery to homes. Students consider the field model as a construct that has enabled an understanding of why objects move when they are not apparently in contact with other objects. Students use Newton's laws to investigate motion in one and two dimensions, and are introduced to Einstein's theories to explain the motion of very fast objects.

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

In this unit, students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and explore its limitations in describing light behaviour. Students learn to think beyond the concepts experienced in everyday life to study the physical world from a new perspective. Students design and undertake investigations involving at least two continuous independent variables.

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 21%

Unit 4 school-assessed coursework: 19%

Units 3 and 4 examination: 60%

# VCE PRODUCT DESIGN AND TECHNOLOGY - WOOD

Study Design Accreditation Period: 2018 – 2022

## ADVICE & PATHWAYS

Students choosing to study Product Design & Technology (Wood) should consider the following.

### VCE Elective Charge.

In 2018 there is an elective charge of \$175.00 for Units 1 and 2.

In 2018 there is an elective charge of \$175.00 for Units 3 and 4.

### This subject will suit you if you enjoy:

- Enjoy a range of learning styles including reading, research, creating and solving problems;
- Design and design discussions;
- Working systematically and independently; and
- Working from drawings and your own design to create product.

**This subject can lead to a career pathway in the following areas:**

There is an interesting and wide range of design fields that product design leads to such as industrial design (Automotive, Furniture, Products), Textile Design, Engineering, Fashion and Architecture.

**Other subjects that complement this subject include:**

- Art;
- Visual Communication and Design.

**Further considerations**

- As a hands-on subject Product Design and Technology provides the opportunity to develop a folio as a requirement for entry into specific tertiary courses.

**2017 Product Design & Technology Teachers:**

Year 11 Mrs Melissa Royale

Year 12 Mrs Melissa Royale

## UNIT DESCRIPTION

Designers play an important part in our daily lives. In this study students transform drawings and plans into the creation of useful products. They take into account the sustainability of resources and develop skills in critically analysing existing products.

**Unit 1: Product re-design and sustainability.**

In this unit students will re-design a product with the aim of improving its aesthetics, functionality and/or quality. They will use a range of materials, tools, equipment and processes to compare their product or prototype to their original drawings.

**Unit 2: Collaborative design.**

Students will work individually and in a team to develop a response to a design brief based on a common theme. They will design and produce a product that meets the needs outlined in the brief.

**Unit 3: Applying the product design process.**

Students use the product design process to work as a designer with a client. They develop a design brief and produce a folio that documents all stages of the process.

**Unit 4: Product development and evaluation.**

In this unit students produce the product designed in Unit 3 and evaluate the outcome of the designing, planning and production activities. Students also undertake a comparison between their product and similar commercial items.

**Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework, school-assessed task and an end-of-year examination.

Unit 3 school-assessed coursework: 12%

Unit 4 school-assessed coursework: 8%

SAT (electronic folio): 50%

Units 3 and 4 examination: 30%

## VCE PSYCHOLOGY

Study Design Accreditation Period: 2017 – 2021

## ADVICE & PATHWAYS

Students choosing to study Psychology should consider the following

**VCE Elective Charge.**

There is no elective charge for VCE Psychology.

**This subject will suit you if you enjoy:**

- Conducting investigations;
- Reading and summarising scientific texts;
- Memorising details and facts such as the names and functions of specific neural structures
- Presenting and analysing data;
- Using specific vocabulary related to key psychological principles and concepts;
- Conducting independent and collaborative research; and
- Solving problems.

**This subject can lead to a career pathway in the following areas:**

Psychology can lead to a range of careers and studies such as those in the Health and Medical Sciences, Welfare, Social Work, Human Resource Management and Justice areas.

**Other subjects that complement this subject include:**

Psychology can be undertaken with a range of other studies in the sciences, humanities and mathematics areas; and can be seen as part of a balanced set of studies where breadth of experience is seen as worthwhile. It is typically studied with a variety of other studies. Many students choose to study Psychology together with studies drawn from other Sciences, Mathematics, Humanities, HPE, Arts/Technology and LOTE areas.

**Further considerations**

- Students should always check with Careers Coordinator for Psychology as a prerequisite study for tertiary courses.

**2017 Psychology Teachers:**

Year 11 Mrs Sacha Roberts, Mr Pecur, Mrs Pennie Marinucci

Year 12 Mrs Pennie Marinucci, Mr Tony Pecur

## UNIT DESCRIPTION

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

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

In this unit, students investigate the development of human cognition, emotion and behaviour. They learn about the structure and functions of the human brain and the role it plays in the nervous system. Students explore brain plasticity and the influence that brain damage may have on a person's psychological functioning. They consider the complex nature of psychological development, including situations where it may not occur as expected. Students examine the contribution that classical and contemporary studies have made to an understanding of the human brain and its functions, and to the development of different psychological models and theories used to predict and explain the development of thoughts, feelings and behaviours.

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

In this unit, students investigate how perception of stimuli enables a person to interact with the world around them and how this perception can be distorted. They evaluate the role social cognition plays in a person's attitudes, perceptions of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of individuals and groups. They examine the contribution that classical and contemporary research has made to the understanding of human perception and why individuals and groups behave in specific ways.

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

In this unit students examine both macro-level and micro-level functioning of the nervous system to explain 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 the causes and management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, the development of new capacities and changed behaviours.

#### **Unit 4: How is wellbeing developed and maintained?**

In this unit students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a biopsychosocial approach, as a scientific model, to analyse mental health and disorder.

#### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and an end-of-year examination.

Unit 3 school-assessed coursework: 16%

Unit 4 school-assessed coursework: 24%

Units 3 and 4 examination: 60%

## **VCE STUDIO ARTS**

Study Design Accreditation Period: 2017 – 2021

### **ADVICE & PATHWAYS**

Students choosing to study Studio Arts should consider the following:

#### **VCE Elective Charge.**

In 2018 there is an elective charge of \$140.00 for Units 1 & 2.

In 2018 there is an elective charge of \$140.00 for Units 3 & 4.

#### **This subject will suit you if you enjoy:**

Hands-on practical application including taking photographs using film and/or digital, Using and experimenting with materials and techniques (including the darkroom and computers/ computer software, such as Photoshop, analysis of artworks through annotations, reflective writing.

#### **This subject can lead to a career pathway in the following areas:**

Career in Photography, Teaching, Advertising, Film, Television, Fashion, Geological Surveillance and Architecture.

#### **Other subjects that complement this subject include:**

- Art;
- Visual Communication and Design;
- Product Design and Technology;
- Food Studies.

#### **Further considerations:**

For Studio Arts, it is helpful but not essential for students to have personal access to a camera to use outside of school hours and the camera can be analogue and/or digital.

#### **2017 VCE Studio Art Teachers**

Year 11 Mrs Lauren Battle

Year 12 Mrs Lauren Battle

### **UNIT DESCRIPTION**

In this study, students research focuses on critical, reflective and creative thinking, the visual analysis of artworks and seek inspiration and influences in their art making. They study how artists have developed styles and explored their cultural identity in their artwork. Students use this knowledge to inform their own studio practice and to support art making.

#### **Unit 1: Studio Inspiration and techniques.**

In this unit students focus on developing their understanding of studio practice and explore, develop, refine, resolve and present artworks. Students research and analyse the ways in which artists have developed their studio practice to interpret and express ideas and apply materials and techniques in artworks.

### **Unit 2: Studio exploration and concepts.**

In this unit students establish and use studio practices to produce artworks. Students explore and develop ideas, creating aesthetic qualities and recording the development of the work. Through the study of art movements and styles, students begin to understand the use of other artists' work in their own work.

### **Unit 3: Studio practices and processes.**

In this unit students focus on the implementation of an individual studio process leading to the production of potential directions. Students develop and use an exploration proposal to define an area of creative exploration. The study of artists and their work practices may provide inspiration for students' own art.

### **Unit 4: Studio practices and industry contexts.**

In this unit students focus on the planning, production and evaluation required to develop, refine and present artworks that link to the ideas resolved in Unit 3. Students produce at least two finished artworks. Students investigate the preparation, presentation and conservation of artworks.

### **Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and school assessed task and one end-of-year examinations.

Unit 3 school-assessed coursework: 5%

Unit 4 school-assessed coursework: 5%

Units 3 and 4 school-assessed task: 60%

Units 3 and 4 examination: 30%

## **VCE SYSTEMS ENGINEERING**

Study Design Accreditation Period: 2013 – 2018

### **ADVICE & PATHWAYS**

Students choosing to study Systems Engineering should consider the following:

#### **VCE Elective Charge.**

In 2018 there is an elective charge of \$110.00 for Units 1 & 2.

In 2018 there is an elective charge of \$110.00 for Units 3 & 4.

#### **This subject will suit you if you enjoy...**

- Identifying, analysing and solving problems
- Converting a conceptual plan into a functional outcome
- Undertaking highly detailed and intricate production tasks
- Enjoy working with tools and machinery
- Enjoy technical design

#### **This subject can lead to a career pathway in the following areas...**

Careers in Aerospace engineer, Communications engineer, instrumentation engineer, Design engineer, Electrical engineer, Electronics engineer, IT consultant, Network engineer, Technician, Manufacturing and assembly

#### **Other subjects that complement this subject include...**

- Art;
- Visual Communication and Design;
- Product Design and Technology;
- Food Studies.

#### **2017 VCE Systems Engineering Teachers**

Year 11 Mr Rubel Khan

Year 12 Mr Rubel Khan

## UNIT DESCRIPTION

VCE Systems Engineering involves the design, creation, operation and evaluation of integrated systems, which mediate and control many aspects of human experience. Integral to Systems Engineering is the identification and quantification of systems goals, the development of alternative system designs concepts, trial and error, design trade-offs, selection and implementation of the best design, testing and verifying that the system is well built and integrated, and evaluating how well the completed system meets the intended goals.

### Unit 1: Introduction to mechanical systems

This unit focuses on engineering fundamentals as the basis of understanding underlying principles and the building blocks that operate in simple to more complex mechanical devices. While this unit contains the fundamental physics and theoretical understanding of mechanical systems and how they work, the main focus is on the construction of a system. The construction process draws heavily upon design and innovation. Students apply their knowledge to design, construct, test and evaluate operational systems. The focus of the system should be mechanical; however, it may include some electronic components. The constructed operational systems demonstrate selected theoretical principles studied in this unit.

### Unit 2: Introduction to electrotechnology systems

In this unit students study fundamental electrotechnology engineering principles. Through the application of their knowledge and the Systems Engineering Process, students produce operational systems that may also include mechanical components. In addition, students conduct research and produce technical reports. While this unit contains fundamental physics and theoretical understanding of electrotechnology systems and how they work, student focus remains on the construction of electrotechnology systems.

### Unit 3: Integrated systems engineering and energy

In this unit students study the engineering principles that are used to explain the physical properties of integrated systems and how they work. Through the application of their knowledge, students design and plan an operational, mechanical-electrotechnology 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 design, planning and construction of one substantial controlled integrated system. This project has a strong emphasis on designing, manufacturing, testing and innovation. Students manage the project throughout the Systems Engineering Process, taking into consideration the factors that will influence the design, planning, production and use of their integrated system. The systems engineering principles underpin students' understanding of the fundamental physics and applied mathematics needed to provide a comprehensive understanding of mechanical and electrotech systems and how they function.

### Unit 4: Systems control and new and emerging technologies

In this unit students complete the production work and test and evaluate the integrated controlled system they designed in Unit 3. Students investigate new and emerging technologies, consider reasons for their development and analyse their impacts. Students use their investigations, design and planning to continue the fabrication of their mechanical-electrotechnology integrated and controlled system using the Systems Engineering Process. They use project and risk management methods through the construction of the system and use a range of materials, tools, equipment, and components. In the final stages of the Systems Engineering Process, students test, diagnose and analyse the performance of the system. They evaluate their processes and the system.

### Levels of achievement for satisfactory completion.

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and school assessed task and one end-of-year examinations.

Unit 3-4 school-assessed coursework: 20%

Units 3 and 4 school-assessed task: 50%

Units 3 and 4 examination: 30%

# VCE VISUAL COMMUNICATION & DESIGN

Study Design Accreditation Period: 2017 – 2021

## ADVICE & PATHWAYS

Students choosing to study Visual Communication should consider the following.

### VCE Elective Charge.

In 2018 there is an elective charge of \$50.00 for Units 1 & 2.

In 2018 there is an elective charge of \$50.00 for Units 3 & 4.

### This subject will suit you if you enjoy:

- Hands on problem solving;
- Independent research; and
- 3D visualising.

### This subject can lead to a career pathway in the following areas:

Visual Communications may lead to a career in Graphic/Communication Design, Architecture, Illustration, Industrial Design, Visual Merchandising, Interior Design, and/or Art.

### Other subjects that complement this subject include:

- Product Design & Technology;
- Studio Art;
- Art;
- English (any);
- Media; and
- Mathematics.

### Further considerations:

For Visual Communications, an ability to draw is advantageous. There are a number of written components in Visual Communications; it is not 100% practical. Computers are utilized as a tool in the classroom, but are also not used 100% of the time and students will be required to have good time management and organisation skills to be successful in this subject. Studying more than two folio subjects in VCE is not recommended.

### 2017 Visual Communication and Design Teachers

Year 11 Mr Paul Robinson

Year 12 Mr Paul Robinson

## UNIT DESCRIPTION

This study is intended to assist students in the understanding, use and interpretation of a range of visual communications within the areas of Industrial, Environmental and Communication design. It involves a study of the vocabulary of visual communication, which includes an understanding of, and application of, drawing and drawing conventions, design elements, and principles and function of design in communication. The study also provides the opportunity to develop an informed, critical and discriminating approach to visual communications encountered in everyday life.

### Unit 1: Introduction into visual communication design.

This unit will enable students to use visual language to communicate messages, ideas and concepts, through instrumental, visualisation, observational and presentation drawing methods. Design elements and principles are explored, applied and analysed. Students study the history of design, and will be introduced to the first stages of the visual communication design process.

### Unit 2: Applications of visual communication design.

This unit will enable students to apply design knowledge, thinking skills and drawing methods to create visual communications that meet specific purposes. The fields of environmental, industrial and communication design will be covered. Typography will be a focus of communication design. The visual communication production process will be applied to generate and develop concepts in response to a brief.

**Unit 3: Design thinking and practice.**

In this unit students gain insight into how the selection of methods, media, materials and the application of design elements and design principles can create effective visual communications for specific audiences and purposes. Students will use research and analysis of designers to support their own work. They establish a brief, with two distinctly different needs, and apply design thinking skills through the design process. The brief and investigation work underpin the developmental and refinement work undertaken in Unit 4.

**Unit 4: Design development and presentation.**

The focus of this unit is the development of design concepts and two final presentations of visual communications to meet the requirements of the brief. This involves applying the design process twice to meet each of the stated needs. Students evaluate their visual communications and devise a pitch to communicate their design thinking to an audience.

**Levels of achievement for satisfactory completion.**

Unit 1 and 2.

Individual school decision on levels of achievement.

Unit 3 and 4

School-assessed coursework and school assessed task and an end-of-year examination.

Unit 3 school-assessed coursework: 33%

Unit 4 school-assessed task: 33%

Units 3 and 4 examination: 34%