

Welcome to the Later Years - My Personal Pathway



BUCKLEY PARK COLLEGE

Build your Wings

VCE Unit Descriptions - 2017

VCE Subjects at Buckley Park College

STUDY	SUBJECT ADVISORS:
Accounting	Mr Grant or Ms Kossis
Australian & Global Politics	Ms Thomas
Biology	Mr Polidori
Business Management	Ms Kossis, Ms Figueiredo or Mr Fidler
Chemistry	Ms Blayney
Computing	Mr McDowall
Drama	Ms Bainbridge
Economics	Mr Fidler
English	Ms Thomas
English (EAL)	Ms McGarrity regarding eligibility
Food Technology	Ms Eltham
Health and Human Development	Ms Todisco or Ms Eltham
History	Ms Vargas or Mr Bailey
Languages – German	Ms Lloyd or Ms Mitchell
Languages – Japanese Second Language	Ms Suh or Ms De La Motte
Legal Studies	Ms Hamsitzis or Mr Dunstan
Literature	Ms Alateras or Ms Thomas
Mathematics	Ms Salpietro or Mr Currie
Media	Mr Crosbie, Ms Godfrey or Ms Kolber
Music Performance	Mr May
Outdoor & Environmental Studies	Ms Wood
Physical Education	Mr Tobin or Ms McGarrity
Physics	Mr Champion or Mr Thompson
Product Design & Technology	Ms La Salle
Psychology	Mr Majeswki
Studio Arts	Ms Sachinidis or Ms Truscott
Visual Communication Design	Ms Cerni
Vocational Education and Training (VET)	Ms Alexander (Post School Transition Coordinator)
Extension Program in the VCE	Ms Alexander (Post School Transition Coordinator)

Generally students would choose subjects as a sequence of units 1, 2, 3 and 4. However, students may move into most subjects at units 1, 2 or 3.

Additional VCE Studies information is available on the Victorian Curriculum and Assessment Authority (VCAA) website www.vcaa.vic.edu.au/Pages/vce/studies/index.aspx

Accounting

Unit 1: Establishing and operating a service business

The unit focuses on the establishment of a small business and the accounting and financial management of the business. Students are introduced to the processes of gathering and recording financial data and the reporting and analysing of accounting information by internal and external users. The cash basis of recording and reporting is used throughout this unit. Using single entry recording of financial data and analysis of accounting information, students examine the role of accounting in the decision-making process for a sole proprietor of a service business. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Unit 2: Accounting for a trading business

The unit extends the accounting process from a service business and focuses on accounting for a sole proprietor of a single trading business. Students use a single entry recording system for cash and credit transactions and the accrual method for determining profit. They analyse and evaluate the performance of the business using financial and non-financial information. Using these evaluations, students suggest strategies to the owner on how to improve the performance of the business. Students develop their understanding of the importance of ICT in the accounting process by using a commercial accounting software package to establish a set of accounts, record financial transactions and generate accounting reports. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Unit 3: Recording and reporting for a trading business

This unit focuses on financial accounting for a single activity trading business as operated by a sole trader and emphasises the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using accrual basis of accounting. The perpetual method of stock recording with the First In, First Out (FIFO) method is used. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Unit 4: Control and analysis of business performance

This unit provides an extension of the recording and reporting process from Unit 3 and the use of financial and non-financial information in assisting management in the decision-making process. The unit is based on the double entry accounting system and the accrual method of reporting for a single activity trading business using the perpetual inventory recording system. Students investigate the role and importance of budgeting for the business and undertake the practical completion of budgets for cash, profit and financial position. Students interpret accounting information from accounting reports and graphical representations, and analyse the results to suggest strategies to the owner on how to improve the performance of the business. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Australian & Global Politics

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 reasons why people seek political power, the characteristics of successful political activists and leaders, and the political ideas that motivate them. 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 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

This unit investigates 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.

Unit 4: 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.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Biology

Unit 1: How do living things stay alive?

This unit focuses on three areas of study:

1. How do organisms function? This area investigates and explains how cellular structures and systems function to sustain life. It includes cell structure and function, movement of substances in and out of cells and how individual organisms obtain nutrients for survival.
2. How do living systems sustain life? This area looks at how various adaptations enhance the survival of an individual organism. It investigates the relationships between organisms that form a living community and their habitat, the importance of biodiversity, and analyses the impacts of factors that affect population growth and survival.
3. Practical investigation – this area looks at designing and undertaking an investigation related to the survival of an organism or species, and drawing conclusions based on evidence from collected data.

Unit 2: How is continuity of life maintained?

This unit focuses on three areas of study;

1. How does reproduction maintain the continuity of life? This area looks at the advantages and disadvantages of asexual and sexual reproduction. It explains how changes within the cell cycle may have an impact on cellular or tissue system function and identifies the role of stem cells in cell growth and cell differentiation.
2. How is inheritance explained? This area looks at genetics in describing patterns of inheritance, analysis of pedigree charts, predicting outcomes of genetic crosses and identifying the implications of the use of genetic screening and decision making in relation to inheritance.
3. Investigation of an issue – this area looks at applying and extending the knowledge and skills developed to investigate an issue involving reproduction and/or inheritance.

Unit 3: How do cells maintain life?

This unit focuses on two areas of study:

1. How do cellular processes work; the dynamic nature of the cell in terms of key cellular processes including plasma membranes, Nucleic acids and proteins, gene structure, regulation of biochemical pathways, photosynthesis and cellular respiration, and analyse factors that affect the rate of biochemical reactions.
2. How do cells communicate; apply a stimulus-response model to explain how cells communicate with each other, outline human responses to invading pathogens, distinguish between the different ways that immunity may be acquired, and explain how malfunctions of the immune system cause disease.

Biology (cont'd)

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

This unit focuses on three areas of study:

1. How are species related; analyse evidence for evolutionary change, including changes in the genetic makeup of a population and changes in biodiversity over time. Explain how relatedness between species is determined, and elaborate on the consequences of biological change in human evolution.
2. How do humans impact on biological processes; describe how tools and techniques can be used to manipulate DNA, explain how biological knowledge is applied to biotechnical applications, and analyse the interrelationship between scientific knowledge and its applications in society.
3. Practical Investigation; A student-designed or adapted investigation related to cellular processes and/or biological change and continuity over time is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4. The investigation is to relate to knowledge and skills developed across Units 3 and 4 and may be undertaken by the student through laboratory work and/or fieldwork. On the completion of this unit the student should be able to design and undertake an investigation related to cellular processes and/or biological change and continuity over time, and present methodologies, findings and conclusions in a scientific poster.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	16%
Unit 4 school assessed coursework	24%
End of year exam	60%

Business Management

Unit 1: Planning a business

Businesses of all sizes are major contributors to the economic and social wellbeing of a nation. Therefore how businesses are formed and the fostering of conditions under which new business ideas can emerge are vital for a nation's wellbeing. Taking a business idea and planning how to make it a reality are the cornerstones of economic and social development. In this unit students explore the factors affecting business ideas and the internal and external environments within which businesses operate, and the effect of these on planning a business.

Unit 2: Establishing a business

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

Unit 3: Corporate management

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

Unit 4: Managing people and change

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

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Chemistry

It is strongly recommended that Chemistry units 1 and 2 be taken as a sequence.

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

This unit focuses on 3 major areas of study. The first two areas explain the properties of matter and the diversity of matter using knowledge of the elements and bonding including ionic, covalent and metallic bonding. Students will conduct a research investigation by choosing one of ten different topics and producing an infographic.

Each area of study in this unit involves the performance of experiments, including the generation, collection and evaluation of experimental data.

Unit 2: What makes water such a unique chemical?

This unit focuses on water and its importance in many different areas of chemistry including as a solvent, in redox and acid/base reactions. Students will design and conduct a quantitative research investigation on an aspect of water quality. They will produce a report in the form of a scientific poster.

Each area of study in this unit involves the performance of experiments, including the generation, collection and evaluation of experimental data.

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

This unit focuses on the many different ways that energy can be produced e.g. fossil fuels, biofuels, galvanic cells and fuel cells. Students will explain ways of optimising the yield of chemical products and quantifying the efficiency of an energy system.

Each area of study in this unit involves the performance of experiments, including the generation, collection and evaluation of experimental data.

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

This unit focuses on the ways in which organic compounds are represented and named, the types of chemical reactions organic compounds are involved in and the major ways that organic compounds are analysed. There is a focus on spectroscopy and chromatography. Students will design and conduct a quantitative research investigation on an aspect of water quality. They will produce a report in the form of a scientific poster.

Each area of study in this unit involves the performance of experiments, including the generation, collection and evaluation of experimental data.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	16%
Unit 4 school assessed coursework	24%
End of year exam	60%

Computing

Structure

The study is made up of six units:

Unit 1: Computing

Unit 2: Computing

Units 3 and 4: Informatics

Units 3 and 4: Software Development

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

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. When creating solutions students need to apply relevant stages of the problem-solving methodology as well as computational, design and systems thinking skills.

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.

COMPUTING continued overleaf

Computing - Informatics

Unit 3: Informatics

In Informatics Units 3 and 4 students focus on data, information and information systems. In Unit 3 students consider 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. Students develop an understanding of the power and risks of using complex data as a basis for decision making. In Area of Study 2 students complete the first part of a project. They frame a hypothesis and then select, acquire and organise data from multiple data sets to confirm or refute this hypothesis. This data is manipulated using tools such as spreadsheets or databases to help analyse and interpret it so that students can form a conclusion regarding their hypothesis. Students take an organised approach to problem solving by preparing project plans and monitoring the progress of the project. The second part of the project is completed in Unit 4.

Unit 4: Informatics

In this unit students focus 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. In Area of Study 2, students explore how different organisations manage the storage and disposal of data and information to minimise threats to the integrity and security of data and information and to optimise the handling of information.

COMPUTING continued overleaf

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Computing - Software Development

Unit 3: Software development

In Software development Units 3 and 4 students focus on the application of a problem-solving methodology and underlying skills to create purpose-designed solutions using a programming language. In Unit 3 students develop a detailed understanding of the analysis, design and development stages of the problem-solving methodology and use a programming language to create working software modules. Details of these approaches to problem solving are in the study design.

In Area of Study 1 students respond to given software designs and develop a set of working modules through the use of a programming language. Students examine a range of software design representations and interpret these when applying specific functions of a programming language to create working modules. In Area of Study 2 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 software solutions used in a networked environment. They continue to study the programming language used in Unit 3.

In Area of Study 1 students further their computational thinking skills by transforming their detailed design prepared in Unit 3 into a software solution. They evaluate the efficiency and effectiveness of the solution in meeting needs or opportunities. They also assess the effectiveness of the project plan in monitoring project progress. In Area of Study 2 students apply systems thinking skills when explaining the relationship between two information systems that share data and how that dependency affects the performance of the systems.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Drama

Unit 1: Dramatic storytelling

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

Unit 2 : Non-naturalistic Australian Drama

This unit focuses on the use and documentation of the processes involved in constructing a devised solo or ensemble performance. Students create, present and analyse a performance based on a person, an event, an issue, a place, an art work, a text and/or an icon from a contemporary or historical Australian context. A study of conventions and dramatic elements is undertaken. This unit also involves the analysis of student performances and professional performance work.

Unit 3: Devised Non-naturalistic ensemble performance

Non-naturalistic performance styles and associated conventions are explored in the creation, development and presentation of an ensemble performance. Collaboration to create, develop and present ensemble performance is central to this performance. Students use and manipulate dramatic elements, expressive skills and performance styles to enhance performance. They select stagecraft and conventions as appropriate to the performance. Students also document and evaluate stages involved in the creation, development and presentation of the ensemble performance. This unit also involves the analysis of student performances and professional performance work.

Unit 4: Solo Performance

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

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	30%
Unit 4 school assessed coursework	10%
End of year performance exam	35%
End of year written exam	25%

Economics

Unit 1 - The Behaviour of Consumers and Businesses

Economics is a dynamic and constantly changing subject, but every country is ultimately faced with the same economic problem: how to allocate resources to best meet the needs and wants of its people. In the first area of study, students will investigate the way that the choices of individuals and businesses impact on what is produced, how it is produced, and who gets the benefits of production. They look at how incentives affect behaviour and use economic models and case studies to explore the way that economic agents make decisions. In area of study two, students will explore the market system and how this operates to allocate resources in Australia, with a focus on specific markets such as the stock market and/or the labour market.

Unit 2 – Contemporary Economic Issues

Economics often looks at contemporary issues where there are wide differences of opinion and constant debate. The choices made by consumers, businesses and the government may benefit some groups, and disadvantage others, and these choices are therefore of significance to us all. In Unit 2, students use case studies and economic models to study several such issues. We begin with the goal of raising living standards and material wealth, and consider how achieving this goal might impact on long-term economic and environmental sustainability. We examine the level of equality in income and wealth distribution, and how choices about income distribution can impact different areas of the economy and society. We then finish the unit by studying one or more global economic issues; such as the challenges faced by developing economies, the impacts of globalisation, and the effects of population growth on the economy. This section of the course will be tailored to fit current events occurring in the Australian and Global economies.

ECONOMICS continued overleaf

Economics (cont'd)

The following units of study will be undertaken by students taking 3 and 4 Economics in 2017

Unit 3: Economic Activity

The Australian economy is a contemporary market capitalist economy. In such an economy, the principle means of allocating scarce resources is the price mechanism. Students examine the factors that affect the price and quantity traded in individual markets. Students investigate the importance of competition and analyse the degree of market power in different industries and how this affects the efficiency of resource allocation. Students also come to appreciate that markets will not always lead to the most efficient allocation of resources. Through an examination of market failure, students are able to explain situations where the market does not operate freely and discuss the role of government in the allocation of resources. The federal government has a range of macroeconomic goals, which they monitor with appropriate statistical indicators. Students examine five key economic goals which may vary in importance from time to time and which are pushed for economic, political and social reasons. Through a detailed study of these goals and an examination of the trend in these goals over the last four years, students develop an understanding of the role that each goal plays in improving living standards.

Unit 4: Economic Management

The federal government attempts to influence the achievement of its economic goals using a range of policies. The government can influence the level of aggregate demand in the economy by relying upon its demand management policies. In recent years, the primary aggregate demand management tool has been monetary policy whereby the Reserve Bank of Australia alters the cost and availability of credit in the economy. Students learn how changes in interest rates will affect inflation, the rate of unemployment and the rate of economic growth. Students also develop an understanding of how the federal government alters the composition and magnitudes of its receipts and expenditure to influence directly and indirectly the components of aggregate demand. Budgetary policy may also be used to target or influence the achievement of external stability and equity in the distribution of income. The relationship between the two macroeconomic demand policies is analysed in terms of their impact upon domestic economic goals.

ECONOMICS continued overleaf

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Economics (cont'd)

The following units of study will be undertaken by students taking 3 and 4 Economics in 2018

Unit 3: Australia's Economic Prosperity

In Australia, the main method of allocating scarce resources is markets, but the government also plays an important role. In area of study 1, students investigate the role of the market in allocating resources, looking at ways that decisions made by consumers and businesses in the market can lead to improved efficiency. Students will also study incidences of market failure, and look at the reasons why the government intervenes in the market in Australia. In area of study 2, students look at Australia's key economic goals, including sustainable economic growth, reducing unemployment, and maintaining low inflation. To finish the unit, students will study Australia's interaction with the global economy, with an emphasis on ensuring stability and improving our international competitiveness.

Unit 4: Managing the Economy

In unit 4, we explore the ability of the government and its agencies to influence economic activity in Australia. Students will study the policies by the government and reserve bank, such as government spending and taxation, and the use of interest rates, to influence aggregate demand and stabilise the business cycle. Students will research and explore the effects of the last two government budgets, and look at the impact of government decisions on economic performance. They will also examine government policies used to increase the productive capacity of the country, evaluating these policies in terms of their effect on incentives and their ability to influence efficiency and competition in Australia.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

English & English as an Alternate Language

This study aims to develop competence in the understanding and use of English for a variety of purposes including higher education and training, post-school employment and participation in a democratic society. It emphasises the integration of reading, writing, speaking, listening and thinking. It values student diversity and encourages learning where students take responsibility for their language skills development and thus grow in confidence and understanding.

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.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

NB. Information about eligibility for SEAL can be obtained from Ms K. McGarrity

Food Studies

New Study Design - Not a folio subject

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. Students consider the origins and significance of food through inquiry into particular food-producing regions of the world. They look at Australian indigenous food prior to European settlement and how food patterns have changed since, particularly through the influence of food production, processing and manufacturing industries and immigration. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of an Australian cuisine. They consider the influence of technology and globalisation on food patterns. Throughout this unit students complete topical and contemporary practical tasks to enhance, demonstrate and share their learning with others.

Unit 2: Food Makers.

In this unit students investigate food systems in contemporary Australia. Students gain insight into the significance of food industries to the Australian economy and investigate the capacity of industry to provide safe, high-quality food that meets the needs of consumers. Students use practical skills and knowledge to produce foods and consider a range of evaluation measures to compare their foods to commercial products. They consider the effective provision and preparation of food in the home, and analyse the benefits and challenges of developing and using practical food skills in daily life. In demonstrating their practical skills, students design new food products and adapt recipes to suit particular needs and circumstances. They consider the possible extension of their role as small-scale food producers by exploring potential entrepreneurial opportunities.

Unit 3: Food in daily life

This unit investigates the many roles and everyday influences of food and eating patterns of Australians. Students investigate the physiology of eating and appreciating food, and the microbiology of digestion. They also investigate the functional properties of food and the changes that occur during food preparation and cooking. They analyse the scientific rationale behind the Australian Dietary Guidelines and the Australian Guide to Healthy Eating and develop their understanding of diverse nutrient requirements. The practical component of this unit enables students to understand food science terminology and to apply specific techniques to the production of everyday food that facilitates the establishment of nutritious and sustainable meal patterns.

Food Studies (cont'd)

Unit 4: Food issues, challenges and futures

In this unit students examine debates about global and Australian food systems focusing on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land. The students will respond to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. Students consider how to assess information and draw evidence-based conclusions. They apply this methodology to navigate contemporary food fads, trends and diets. They practise and improve their food selection skills by interpreting food labels and analysing the marketing terms used on food packaging. The practical component of this unit provides students with opportunities to apply their responses to environmental and ethical food issues, and to extend their food production repertoire reflecting the Australian Dietary Guidelines and the Australian Guide to Healthy Eating.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	30%
Unit 4 school assessed coursework	30%
End of year exam	40%

Health & Human Development

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

Students develop an understanding of the concepts of health and individual human development and explore the interrelationships that exist within and between them. They will develop an understanding of the physical, social, emotional and intellectual changes associated with the developmental stage of youth and interpret data on the health status of Australia's youth. Students will develop an understanding of how determinants including biological and behavioural factors and physical and social environments influence youth health and individual health and human development. They will explore the importance of nutrition during the lifespan stage of youth and a range of health issues for youth.

Unit 2: Individual human development and health issues

Students develop an understanding of the health and individual human development of Australia's children, from conception until the approximate age of 12 and also adults, including older adults. They explore the physical development that occurs from conception to late childhood, as well as the social, emotional and intellectual changes that occur from birth until old age. They investigate how biological, behavioural, social and physical environments influence health and development. Students will identify government, community and personal strategies and programs designed to promote health and individual human development of Australia's children and adults.

Unit 3: Australia's health

Students develop an understanding of the health status of Australians by investigating the burden of disease and the health of population groups in Australia. Students use key health measures to compare health in Australia with other developed countries, and analyse how biological, behavioural, physical environments and social determinants of health contribute to variations in health status. Students examine the development of the National Health Priority Areas (NHPAs) and their relationship to the burden of disease in Australia. They analyse the initiatives designed to promote health relevant to the NHPAs, and come to understand that nutrition is an important factor for a number of the NHPAs. Students will also examine different models of health and health promotion. They investigate the roles and responsibilities of governments in addressing health needs and promoting health for all through the provision of a national health system and health promotion initiatives. Students examine the role of government and non-government organisations in providing programs and support for the promotion of healthy eating.

Unit 4: Global health and human development

Students explore global health, human development and sustainability and their interdependencies. They identify similarities and differences in the health status between people living in developing countries and Australians, and analyse reasons for the differences. The role of the United Nations Millennium Development Goals is investigated in relation to achieving sustainable improvements in health status and human development. Students also explore the role of international organisations such as the UN and WHO in achieving sustainable improvements in health and human development. Students consider strategies designed to promote health and sustainable human development globally, as well as Australia's contributions to non-government organisations.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

History

Unit 1 – Twentieth-Century History (1900 – 1945)

The first half of the twentieth century was a period marked by significant change. In the nineteenth century there still remained a sense of a certain and natural order of society. However, this order was challenged and overturned in the first half of the twentieth century. Societies and individuals were in a state of flux and all that seemed guaranteed was more and more change. This unit considers the way in which certain societies responded to such changes and how they affected people's lives.

Unit 2 – Twentieth-Century History (1945 – 2000)

A constant theme of world history since 1945 has been the increasing interplay between domestic and regional events and international developments. This period has also been dominated by post-war reconstruction and significant growth in material living standards. Significant developments have also occurred in mass communication and audio-visual media. This unit provides the opportunity to investigate some of the major themes and events of post-war history media representation of the Cold War, the emergence of social movements and the role of the media in modern war-time reporting.

Unit 3 – Revolutions: France.

The French Revolution is known for its Terror and brutality, but also for its unique and lasting contributions to democracy. In Area of Study 1 students will be investigating the events and other conditions that contributed to the outbreak of revolution, such as the friction between monarchy and Parlements, noble privileges and peasant grievances. The ideas that played a significant role in challenging the existing order, including the Enlightenment. The role of individuals, including Louis XVI, Marie Antoinette and Marquis de Lafayette, as well as the contribution of popular movements in mobilising society and challenging the existing order, including the Réveillon Riots, the storming of the Bastille, the 'Great Fear' and the October Days.

In Area of Study 2 students will be examining the challenges the new regime faced in attempting to consolidate its power, including power of the Church and nobility. The changes and continuities in political, social, cultural and economic conditions that influenced leaders to compromise their revolutionary ideals, including the use of capital punishment and the policy of 'terror until peace' in 1793–94. The contribution of significant individuals that changed society, as well as the diverse revolutionary experiences of social groups and their responses to the challenges and changes to the conditions of everyday life, including bourgeoisie, clergy, urban workers in Paris, urban and rural women, peasants, the nobility and émigrés.

History (cont'd)

Unit 4 – Revolutions: Russia.

The Russian Revolution brought fear to aristocracies all over Europe, but it also brought a changed understanding of social hierarchies. In Area of Study 1 students will be investigating the events and other conditions that contributed to the outbreak of revolution, including tensions in Tsarist Russia, World War One and the February Revolution. The ideas that played a significant role in challenging the existing order, including Marxism and Marxist-Leninism. The role of individuals, including Tsar Nicholas II, Tsarina Alexandra, Grigori Rasputin, Lenin and Trotsky. The contribution of popular movements in mobilising society and challenging the existing order, including workers' protests and peasants' uprisings, and challenges by other political factions.

In Area of Study 2 students will examine the challenges the new regime faced in attempting to consolidate its power, including the dissolution of the Constituent Assembly, political opposition and the Red Terror. The changes and continuities in political, social, cultural and economic conditions that influenced leaders to compromise their revolutionary ideals, including creation of the Sovnarkom, creation of the CHEKA and State Capitalism. The contribution of significant individuals that changed society including Lenin, Trotsky, Felix Dzerzhinsky and Alexandra Kollontai. The diverse revolutionary experiences of social groups and their responses to the challenges and changes to the conditions of everyday life, including Aristocracy, peasants, Kulaks, workers, bourgeoisie, women and nationalities of the former Russian Empire.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Languages

Unit 1: Languages – German / Japanese Second Language

Student's knowledge and skills in understanding, speaking and writing the language are extended through the study of topics under three themes: the individual, the German/Japanese speaking communities and the changing world.

Students are required to: establish or maintain a spoken or written exchange related to personal areas of experience; listen to, read and obtain information from written and spoken texts; and produce a personal response to a text focusing on real or imaginary experience.

Unit 2: Languages – German / Japanese Second Language

Student's knowledge and skills in understanding, speaking and writing the language are extended through the study of topics under three themes: the individual, the German/Japanese speaking communities and the changing world.

Students are required to: participate in a spoken or written exchange related to making arrangements and completing transactions; listen to, read, and extract and use information and ideas from written and spoken texts; and give expression to real or imaginary experience in written or spoken form.

Unit 3: Languages – German / Japanese Second Language

Student's knowledge and skills in understanding, speaking and writing the language are extended through the study of topics under three themes: the individual, the German / Japanese speaking communities and the changing world.

In units 3 and 4 students are required to undertake a detailed study of language and culture through texts.

Students are also required to: express ideas through the production of original texts; analyse and use information from spoken texts; and exchange information, opinions and experiences.

School-assessed coursework for unit 3 will contribute 25% of the final assessment. The level of achievement for units 3 and 4 will also be assessed by two end-of-year examinations, which contribute 50% of the final assessment.

Unit 4: Languages – German / Japanese Second Language

Student's knowledge and skills in understanding, speaking and writing the language are extended through the study of topics under three themes: the individual, the German / Japanese speaking communities and the changing world.

In units 3 and 4 students are required to undertake a detailed study of language and culture through texts.

Students are also required to: analyse and use information from written texts; and respond critically to spoken and written texts, which reflect aspects of the language and culture of the German / Japanese speaking communities.

School-assessed coursework for unit 4 will contribute 25% of the final assessment. The level of achievement for units 3 and 4 will also be assessed by two end-of-year examinations, which contribute 50% of the final assessment.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year oral exam	12.5%
End of year written exam	37.5%

Legal Studies

Unit 1: Criminal Law in Action

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

Unit 2: Issues in Civil Law

Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil law in society and how it affects them as individuals. The unit also focuses on the resolution of civil disputes through judicial determination and alternative methods in courts, tribunals and independent bodies. Students examine these methods of dispute resolution and evaluate their effectiveness. Individuals can influence a change in the law by taking a case to court. Students focus on cases that have had a broader impact on the legal system and on the rights of individuals. Students develop an appreciation of the role played by such cases and undertake an analysis of relevant legal issues.

Unit 3: Law- Making

Students develop an appreciation of the complex nature of law-making by investigating the key features and operation of parliament, and influences on law-making, with a focus on the role of the individual. Central to the investigation of law-making is the role played by the Commonwealth Constitution. Students develop an understanding of the importance of the Constitution in their lives and on society as a whole, and undertake a comparative analysis with another country. They learn of the importance of the High Court of Australia in interpreting and enforcing the Constitution, and ensuring that parliaments do not act outside their power nor infringe protected rights. Students investigate the nature and importance of courts as law-makers and undertake an evaluation of their effectiveness as law-making bodies. They also investigate the relationship between parliaments and courts. Throughout this unit, students examine relevant cases to support their learning and apply legal principles to these cases.

Unit 4: Resolution and justice

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

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Literature

Unit 1

This unit focuses on the ways literary texts represent human experience and the reading practices students can develop to deepen their understanding of texts. Students respond to a range of texts personally, critically and creatively. These responses invite interpretation about the ideas and concerns of the texts. While the emphasis is on a close engagement with language to explore texts, students will also inform their understanding with knowledge of the conventions associated with such forms as poetry, prose, drama and non-print texts.

Unit 2

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

Unit 3

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

Unit 4

This unit focuses on students' creative and critical responses to texts. Students consider the context of their creative responses such as style of language and point of view.

In their critical responses, students develop an interpretation of a text and synthesise the insights gained into a cogent, substantiated piece of writing. Students will also prepare for the end-of-year examination.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Mathematics

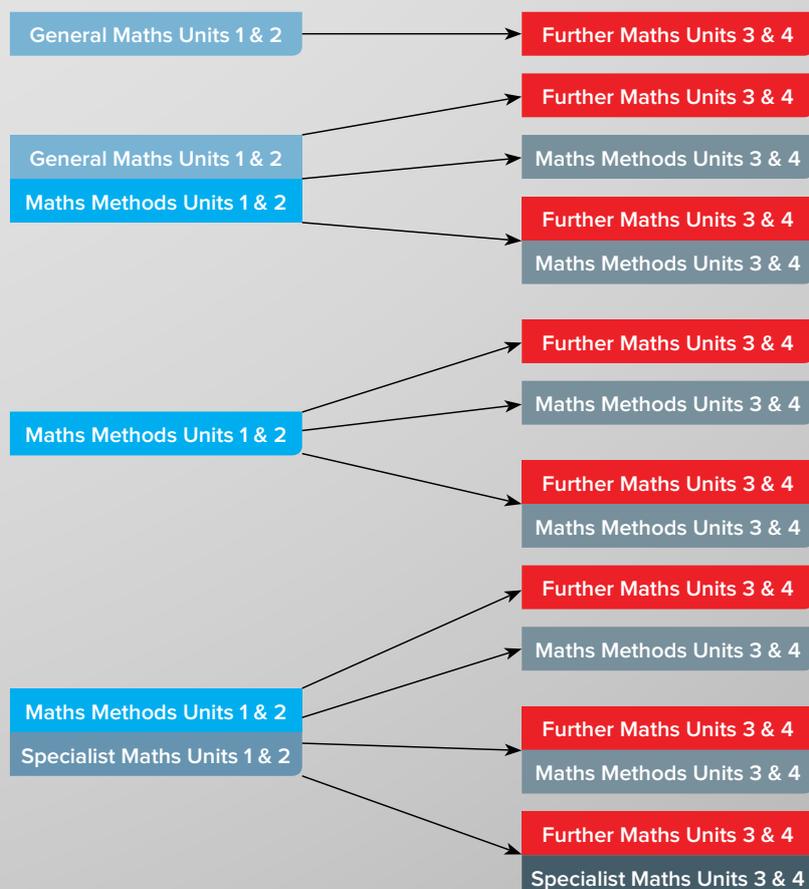
Students will need to consider their career aspirations, the prerequisites for all relevant tertiary courses and the recommendations of their Year 10 and Year 11 mathematics teachers before choosing the units of mathematics suitable for their needs and ability.

Structure

The study is made up of the following units:

Structure	
General Maths Units 1 & 2 Maths Methods Units 1 & 2 Specialist Maths Units 1 & 2	Further Maths Units 3 & 4 Maths Methods Units 3 & 4 Specialist Maths Units 3 & 4

The following diagram provides the possible mathematics pathways for Years 11 and 12. Note that students can choose to study one or two courses of mathematics in Year 11 and again in Year 12. Students may choose to study three mathematics subjects in Year 12, only if this provides the best possible preparation for their chosen career pathway.



The use of technology will be incorporated throughout each VCE unit, both in the learning of new material and the application of this material in a variety of different contexts. Students will be required to use the Casio Classpad II fx-CP400 to support their learning in VCE mathematics. Students will retain this calculator from year 10.

Mathematics (cont'd)

There are 3 courses available for students in Year 11:

General Mathematics – Units 1 & 2

Prerequisite: Students need to have obtained a pass in Maths 10, Maths 10A or Maths Extension.

General Mathematics Units 1 and 2 can be studied alone or they can be studied in conjunction with Mathematical Methods Units 1 and 2. They provide the necessary preparation for students to proceed to Further Mathematics Units 3 and 4

The areas of study from which the course is designed are: Statistics, Financial Arithmetic, Matrices, Linear Relations and Equations, Number Patterns and Recursion, Linear Graphs and Models, Inequalities and Linear Programming.

Mathematical Methods – Units 1 and 2

Prerequisite: Students need to have obtained a pass in Maths 10A or Maths Extension in all topics and exams.

Mathematical Methods (CAS) Units 1 and 2 can be studied alone or in conjunction with either General Mathematics Units 1 and 2 or Specialist Mathematics Units 1 and 2. These units provide excellent preparation for Mathematical Methods (CAS) Units 3 and 4.

The areas of study are functions & graphs, algebra, calculus, probability and statistics.

Specialist Mathematics - Units 1 and 2

Prerequisite: Students need to have obtained a good pass in Maths 10A or Maths Extension in all topics and exams.

Specialist Mathematics Units 1 and 2 may only be studied in conjunction with Mathematical Methods Units 1 and 2. The content of the Specialist Mathematics course is intended to provide a thorough preparation for students who intend to study Specialist Mathematics Units 3 and 4.

The areas of study are arithmetic & number, trigonometry, vectors, graphs of non linear relations, kinematics and algebra.

Mathematics (cont'd)

There are 3 courses available for students in Year 12:

Further Mathematics – Units 3 and 4

Prerequisite: Students need to have obtained a pass in any Unit 1 and 2 VCE Mathematics.

Further Mathematics Units 3 and 4 can be studied alone or in conjunction with Mathematical Methods Units 3 and 4.

Further Mathematics consists of compulsory areas of study in recursion & financial modelling and data analysis. And the completion of two modules in the Applications area of study - graphs & relations and matrices.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	20%
Unit 4 school assessed coursework	14%
End of year exam 1 (technology active)	33%
End of year exam 2 (technology active)	33%

Mathematical Methods – Units 3 and 4

Prerequisite: Students need to have obtained a pass in Mathematical Methods Units 1 and 2.

Mathematical Methods Units 3 and 4 can be studied alone or in conjunction with either Further Mathematics Units 3 and 4 or Specialist Mathematics Units 3 and 4.

This course is fully prescribed and includes material from the areas of study - functions & graphs, algebra, calculus, probability and statistics.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	17%
Unit 4 school assessed coursework	17%
End of year exam 1 (technology active)	22%
End of year exam 2 (technology active)	44%

Mathematics (cont'd)

Specialist Mathematics – Units 3 and 4

Prerequisite: Students need to have obtained a pass in Mathematical Methods Units 1 and 2 and Specialist Mathematics Units 1 and 2.

Specialist Mathematics Units 3 and 4 can only be studied in conjunction with Mathematical Methods Units 3 and 4 and assume concurrent or previous knowledge and skills contained in these units. Specialist Mathematics Units 3 and 4 are intended for students who plan to undertake specialist tertiary courses in Mathematics that assume a high level of mathematical knowledge.

The Specialist Mathematics course is fully prescribed and consists of the areas of study - functions & graphs, algebra, calculus, vectors, mechanics and probability & statistics.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	17%
Unit 4 school assessed coursework	17%
End of year exam 1 (technology active)	22%
End of year exam 2 (technology active)	44%

Media

Unit 1: Representation and technologies of representation

The purpose of this unit is to enable students to develop an understanding of the relationship between the media, technology and the representations present in media forms. The unit involves the study of the implications of media technology for the individual and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, and the creative and cultural implications of new media technologies.

Unit 2: Media production and the media industry

This unit will enable students to develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students develop practical skills through undertaking assigned roles during their participation in specific stages of a media production and analyse issues concerning the stages and roles in the media production process. Students also develop an understanding of media industry issues and developments relating to production stages and roles and the broader framework within which Australian media organisations operate.

Unit 3: Narrative and Media production design

The purpose of this unit is to enable students to develop an understanding of production and story elements and to recognise the role and significance of narrative organisation in fictional film, radio or television programs. In this context students also consider how production and story elements structure narratives to engage an audience. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They design a media production for a specific media form with the relevant specifications presented as a written planning document with visual representations.

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

The purpose of this unit is to enable students to further develop practical skills in the production of media products and to realise a production design. Organisational and creative skills are refined and applied throughout this process. In this unit students also analyse the ways in which media texts are shaped by social values and the influence of social values in the representations and structure of a media text. The role and influence of the media is also critically analysed in this unit.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	6%
Unit 4 school assessed coursework	12%
Unit 3 & 4 school assessed task	37%
End of year exam	45%

Music Performance

Unit 1: Music Performance and Music style

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

Unit 2 : Music Performance, Music Style and Composition

In this unit students build their performance and musicianship skills. They present performances of selected group and solo music works using one or more instruments. Students study the work of other performers through listening and analysis and use specific strategies to optimise their own approach to performance. They develop skills in performing previously unseen music and study specific concepts to build their musicianship knowledge and skills. Students also devise an original composition or improvisation. This unit explores how composers use music to create effects and elicit responses.

Unit 3: Music Performance and Music Style

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

Unit 4: Music Performance and Music Style

In this unit students refine their ability to present convincing performances of group and solo works. Students select group and solo works that complement works selected in Unit 3. They further develop and refine instrumental and performance techniques that enable them to expressively shape their performance and communicate their understanding of the music style of each work. Students continue to develop skills in aural perception and comprehension, transcription, theory, analysis and unprepared performance.

The minimum requirement for entry into the subject VCE Music Performance Unit 1 is as follows.

Students must demonstrate that they:

- can play an instrument or sing with a level of competency suggesting two or more years of prior learning
- are prepared to contribute to the Music Department's performance expectations

NB: It is expected that students will undertake private instrumental / vocal tuition outside class time.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	15%
Unit 4 school assessed coursework	15%
End of year performance exam	50%
End of year written exam	20%

Outdoor & Environmental Studies

NB: As part of the subject curriculum for Units 1 and 2 Outdoor and Environmental Studies, students will be required to attend camps and excursions to fulfil the experiential components of the assessment. Activities may include bushwalking, mountain biking, rock climbing, rogaining, cross country skiing, canoeing, rafting, snorkelling, camping in tents, and nature study activities. These activities have a certain level of risk associated with them that is inherent with being in natural bush, snow, river, or marine environments. The cost of these camps and excursions will be approximately \$600 per semester.

Unit 1: Exploring Outdoor Experiences (Yr 10 only)

This unit examines the ways in which humans understand and relate to nature through experiences of outdoor environments. The focus is on the 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 the 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 (Yr 10 only)

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 the human impact on outdoor environments. Students are provided with the 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 (Yr 11 only)

The focus of this unit is the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia. Case studies of impacts on outdoor environments are examined in the context of the changing nature of human relationships with outdoor environments in Australia. Students consider a number of factors that influence contemporary relationships with outdoor environments. They also examine the dynamic nature of relationships between humans and their environment. Students are involved in one or more experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop theoretical knowledge and skills about specific natural environment.

Outdoor & Environmental Studies (cont'd)

Unit 4: Sustainable Outdoor Relationships (Yr 11 only)

In this unit students explore the sustainable use and management of outdoor environments. They examine the contemporary state of environments in Australia, consider the importance of healthy outdoor environments, and examine the issues in relation to the capacity of outdoor environments to support the future needs of the Australian population. Students examine the importance of developing a balance between human needs and the conservation of outdoor environments and consider the skills needed to be environmentally responsible citizens. They investigate current agreements and environmental legislation, as well as management strategies and policies for achieving and maintaining healthy and sustainable environments in contemporary Australian society. Students engage in one or more related experiences in outdoor environments. They learn and apply the practical skills and knowledge required to sustain healthy outdoor environments, and evaluate the strategies and actions they employ. Through these practical experiences students are provided with the basis for comparison and reflection, and opportunities to develop and apply theoretical knowledge about outdoor environments.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Physical Education

Unit 1: The human body in motion

In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity. Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms. They also recommend and implement strategies to minimise the risk of illness or injury to each system.

Unit 2: Physical activity, sport and society

This unit develops students' understanding of physical activity, sport and society from a participatory perspective. Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups. Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied. Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

Unit 3: Physical activity participation and physiological performance

This unit introduces students to an understanding of physical activity and sedentary behaviour from a participatory and physiological perspective. Students apply various methods to assess physical activity and sedentary levels and analyse data in relation to the Australian Physical Activity and Sedentary Behaviour Guidelines. Identify a range of Australian strategies that are effective in promoting participation in some form of regular activity. The unit also looks at the contribution of energy systems to performance in physical activity. The students look at the characteristics of each of the energy systems and their interplay as well as the many causes of fatigue. They will consider different strategies used to delay and manage fatigue and promote recovery.

Physical Education (cont'd)

Unit 4: Enhancing performance

Improvements in performance, particularly 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 and then investigate the required fitness components, participate in a training program designed to improve selected components. The unit also looks at different techniques and practices that can be used to enhance performance such as nutritional, physiological and psychological strategies and look at the rationale for the banning or inclusion of various practices from sporting competition.

The following units of study will be undertaken by students taking 3 and 4 Physical Education in 2018

Unit 3: Movement skills and energy for physical activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport. Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Unit 4: Training to improve performance

In this unit students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity at an individual, club and elite level. Improvements in performance, in particular fitness, depend on the ability of the individual and/or coach to gain, apply and evaluate knowledge and understanding of training. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students consider the physiological, psychological and sociological requirements of training to design and evaluate an effective training program. Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods. Students critique the effectiveness of the implementation of training principles and methods to meet the needs of the individual, and evaluate the chronic adaptations to training from a theoretical perspective.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	25%
Unit 4 school assessed coursework	25%
End of year exam	50%

Physics

VCE Physics provides students with opportunities to explore questions related to the natural and constructed world. The study provides a contextual approach to exploring selected areas within the discipline including atomic physics, electricity, fields, mechanics, thermodynamics, quantum physics and waves.

Students also have options for study related to astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science.

As well as an increased understanding of scientific processes, students develop capacities that enable them to critically assess the strengths and limitations of science, respect evidence-based conclusions and gain an awareness of the ethical, social and political contexts of scientific endeavours.

It is strongly recommended that Physics units 1 and 2 be taken as a sequence.

Unit 1: What ideas explain the physical world?

Thermodynamics: apply thermodynamic principles to analyse, interpret and explain changes in thermal energy in selected contexts, and describe the environmental impact of human activities with reference to thermal effects and climate science concepts.

Electricity: investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community

Nuclear Physics and Nuclear Energy: examine the origins of atoms, the nature of subatomic particles and how energy can be produced by atoms.

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

Motion: investigate, analyse and mathematically model the motion of particles and bodies.

Detailed Study: One option is to be selected by the student from the following:

- What are stars?
- Is there life beyond Earth's Solar System?
- How do forces act on the human body?
- How can AC electricity charge a DC device?
- How do heavy things fly?
- How do fusion and fission compare as viable nuclear energy power sources?
- How is radiation used to maintain human health?
- How do particle accelerators work?
- How can human vision be enhanced?
- How do instruments make music?
- How can performance in ball sports be improved?
- How does the human body use electricity?

Practical investigation: undertake an investigation of a physics question related to the scientific inquiry processes of data collection and analysis, and draw conclusions based on evidence from collected data.

Physics (cont'd)

Units 3 & 4:

Each unit deals with specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. Each outcome is described in terms of key knowledge and key science skills. The study is structured under a series of curriculum framing questions that reflect the inquiry nature of the discipline. A student-designed and conducted Practical investigation spans Units 3 and 4.

Unit 3: How do fields explain motion and electricity?

Field theory: gravitational, electric and magnetic fields

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

Wave-particle duality: wave and particle models explain light and matter phenomena

Student-designed practical investigation related to fields, motion and/or waves:

Students undertake scientific investigations across Units 3 and 4 of this study. Scientific investigations may be undertaken in groups, but all work for assessment must be completed individually.

Students maintain a logbook of practical activities in each unit of this study for recording, authentication and assessment purposes. They report in poster form.

Students communicate findings for the investigation in Outcome 3, Unit 4 of this study in a scientific poster. The poster may be produced electronically or in hard copy format and should not exceed 1000 words. Students must select information carefully so that they meet the word limit. The production quality of the poster will not form part of the assessment.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	16%
Unit 4 school assessed coursework Includes detailed study	24%
End of year exam	60%

Product Design & Technology

In VCE Product Design and Technology students assume the role of a designer-maker. In adopting this role, they acquire and apply knowledge of factors that influence design. Students address the design factors relevant to their design situation.

Unit 1: Product Re-design and sustainability

In this area of study students are introduced to the Product design process, IP and the Product design factors, with an emphasis on materials and sustainability. Students consider case studies of designers who claim to have incorporated sustainable practices by examining how an existing product currently fulfils the need of a user. They consider how the product could be improved by writing a design brief for a product's modification and improvement.

Unit 2: Collaborative design

In this unit students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. They focus on factors including: human needs and wants; function, purpose and context for product design; aesthetics; materials and sustainability; and the impact of these factors on a design solution. Students will gain inspiration from an historical and/or a cultural design movement or style by defining factors such as ideological or technological change, philosophy or aesthetics.

Unit 3: Applying the Product Design

In this unit students are engaged in the design and development of a product that meets the needs and expectations of a client and/or an end-user, developed through a design process and influenced by a range of complex factors. These factors include the purpose, function and context of the product; human centred design factors; innovation and creativity; visual, tactile and aesthetic factors; sustainability concerns; economic limitations; legal responsibilities; material characteristics and properties; and technology.

Unit 4: Product development and evaluation

In this unit the students will compare, analyse and evaluate similar commercial products, taking into account a range of factors and using appropriate techniques. Students will safely apply a range of production skills and processes to make the product designed in Unit 3, and manage time and resources effectively and efficiently. Students will evaluate the outcomes of the design, planning and production activities, explain the product's design features to the client and/or an end-user.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	12%
Unit 4 school assessed coursework	8%
Unit 4 school assessed task	50%
End of year exam	30%

Psychology

Unit 1

Students explore brain plasticity and the influence that brain damage may have on a person's psychological functioning. They consider the complex nature of psychological development, including situations where psychological development may not occur as expected. 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

In this unit students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted. Students explore a variety of factors and contexts that can influence the behaviour of an individual 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

In this unit students examine the functioning of the nervous system to explain how it enables a person to interact with the world around them. The effects of stress are explored and causes and management of stress are investigated. Mechanisms of memory and learning, and the limitations and fallibility of memory are examined. Students review the contribution that classical and contemporary research has made to the understanding of the structure and function of the nervous system.

Unit 4

Students consider the role of sleep and the impact that sleep disturbances have on functioning. They apply a biopsychosocial approach, as a scientific model, to analyse mental health and disorder. They use specific phobia to illustrate how the development and management of a mental disorder can be considered as an interaction between biological, psychological and social factors. Students examine the contribution that classical and contemporary research has made to the understanding of consciousness, mental functioning and wellbeing.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	12%
Unit 4 school assessed coursework	8%
Unit 4 school assessed task	50%
End of year exam	30%

Studio Arts

Unit 1: Studio inspiration and techniques

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

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

The exhibition of artworks is integral to Unit 1 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

Unit 2: Studio exploration and concepts

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

Through the study of art movements and styles, students begin to understand the use of other artists' work in the making of new artworks. Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand developments in studio practice. Using a range of art periods, movements or styles, students develop a broader knowledge about the history of art. Analysis is used to understand the artists' ideas and how they have created aesthetic qualities and subject matter. Comparisons of contemporary art with historical art styles and movements should be encouraged.

The exhibition of artworks is integral to Unit 2 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

Studio Arts (cont'd)

Unit 3: Studio practices and processes

In this unit students focus on the implementation of an individual studio process leading to the production of a range of potential directions. Students develop and use an exploration proposal to define an area of creative exploration. They plan and apply a studio process to explore and develop their individual ideas. Analysis of these explorations and the development of the potential directions is an intrinsic part of the studio process to support the making of finished artworks in Unit 4.

For this study, the exploration proposal supports the student to identify a direction for their studio process. The student determines the studio process. This process records trialling, experimenting, analysing and evaluating the extent to which art practices successfully communicate ideas presented in the exploration proposal. From this process students progressively develop and identify a range of potential directions. Students will select some of these potential directions from which to develop at least two artworks in Unit 4.

The study of artists and their work practices and processes may provide inspiration for students' own approaches to art making. Students investigate and analyse the response of artists to a wide range of source material and examine their use of materials and techniques. They explore professional art practices of artists from different historical and cultural contexts in relation to particular artworks and art forms.

The exhibition of artworks is integral to Unit 3 and students are expected to visit a variety of exhibitions throughout the unit, reflect on the different environments where artworks are exhibited and examine how artworks are presented to an audience. Students are expected to visit at least two different exhibitions and study specific artworks displayed in these exhibitions during their current year of study.

Unit 4: Studio practice and art industry contexts

In this unit students focus on the planning, production and evaluation required to develop, refine and present artworks that link cohesively according to the ideas resolved in Unit 3. To support the creation of artworks, students present visual and written evaluation that explains why they selected a range of potential directions from Unit 3 to produce at least two finished artworks in Unit 4. The development of these artworks should reflect refinement and skillful application of materials and techniques, and the resolution of ideas and aesthetic qualities discussed in the exploration proposal in Unit 3. Once the artworks have been made, students provide an evaluation about the cohesive relationship between the artworks.

This unit also investigates aspects of artists' involvement in the art industry, focusing on a least two different exhibitions, that the student has visited in the current year of study with reference to specific artworks in those exhibitions. Students investigate the methods and considerations of the artist and/or curator involved in the preparation, presentation and conservation of artworks displayed in exhibitions in at least two different galleries or exhibitions. Students examine a range of environments for the presentation of artworks including public galleries and museums, commercial and private galleries, university art galleries, artist-run spaces, alternative art spaces and online gallery spaces.

Unit 3 and 4 assessment breakdown

Unit 3 School assessed Coursework	5%
Unit 3 School assessed Task	30%
Unit 4 School-assessed Coursework	5%
Unit 4 School-assessed Task	30%
End of year exam	30%

Visual Communication Design

Unit 1: Introduction to visual communication design

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills. Students practice their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications. Through explorations of the relationship between design elements and design principles, students develop an understanding of how design elements and principles affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design styles. In this unit students are introduced to the design process.

Unit 2: Applications of visual communication design

This unit focuses on the application of visual communication design knowledge, design thinking skills and drawing methods to create visual communications to meet specific purposes in designated design fields. Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They investigate how typography and imagery are used. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field.

Unit 3: Design thinking and practice

In this unit students gain an understanding of the design process designers employ to structure their thinking and communicate ideas with clients, target audiences, other designers and specialists. Through practical investigation and analysis of existing visual communications, students gain insight into how the selection and use of both manual and digital methods, media and materials and the application of design elements and design principles can create effective visual communications for specific audience and purposes. Students use their research and analysis of visual communication design to support the development of their own work. They establish a brief and apply design thinking skills through the design process. Design from a variety of historical and contemporary design fields is considered by students to provide directions for investigation for their own work. Students use drawings to generate design ideas and apply design thinking strategies to organise and evaluate their ideas.

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 continue the design process started in Unit 3 by developing and refining concepts. They utilise a range of digital and manual two and three dimensional methods, media and materials. They investigate how the application of design elements and design principles creates different communication messages with their target audience. As students revisit stages to undertake further research of idea generation when developing and presenting their design solutions, they develop an understanding of the iterative nature of the design process.

Unit 3 and 4 assessment breakdown

Unit 3 school assessed coursework	33%
Unit 4 school assessed task	33%
End of year exam	34%

Vocational Education & Training in Schools (VETiS)

A VET program combines VCE studies with vocational training and in some cases, experience in the workplace. A VET program is delivered and administered by an external Registered Training Organisation (RTO) at TAFE colleges or within a school setting. Including a VET program provides students with the opportunity to gain experience in a vocation of interest, receive credit towards the VCE and satisfies some competencies for a TAFE certificate.

The following VET programs have been offered to students in previous years and delivered by Kangan Institute, Victoria University TAFE, William Angliss, VFA Learning and SAGE Institute, Melbourne Polytechnic:

VET PROGRAMS	
Automotive	Fitness
Carpentry	Music
Media	Hospitality
Electro Technology	Children's Services
Dance	Hair & Beauty
Fashion	Multimedia
IT	Legal Administration
	Plumbing

The decision to include VET in a VCE program should be based on the student's:

- aspirations and plans for further study/work
- total picture of all VCE studies and the associated workload
- motivation and willingness to undertake responsibility. Generally students attend TAFE one day per week, usually on a Wednesday. It is students responsibility to complete work missed that day for homework.
- students in year 11 study 5 VCE subjects plus a VET program
- students in year 12 study 4 VCE subjects plus a VET program

In VET programs with scored assessment (exam) the study score contribute to the calculation of the ATAR. VET programs without scored assessment may be counted as fifth and/or sixth studies. The increment will be 10% of the average of the primary four ATAR subject scores.

Substantial course costs are associated with VET programs. The government and the school provide a subsidy towards these costs and **parents of VCE students are required to contribute \$500** towards the VCE VET costs which is paid as \$300 deposit in November 2016 and a \$200 balance in February 2017.

Information on VETiS program can be located at [www.vcaa.vic.edu.au/VET\(VocationalEducation&Training\)](http://www.vcaa.vic.edu.au/VET(VocationalEducation&Training))

Extension Program in the VCE

An extension program allows high achieving students to take on an academic challenge and maximise their learning experience in the final year of school. Students participating in the program complete a first year university subject alongside Year 12. Subjects are available in areas of The Arts, Business and Commerce, Information Technology, Mathematics and Science.

Successful completion of the full year of the extension program can be used as a 5th or 6th study in the calculation of the ATAR. Depending on the mark achieved, between 3 to 5 points can be added to the ATAR aggregate (the score used to calculate the ATAR). The table below outlines the points that may be received and the equivalent VCE study score value:

AVERAGE MARK FOR EXTENSION PROGRAM SUBJECT	EXTENSION PROGRAM ATAR CONTRIBUTION	EQUIVALENT VCE STUDY SCORE
90 or more	5.0 points	50
80 – 89	4.5 points	45
70 – 79	4.0 points	40
60 – 69	3.5 points	35
50 – 59	3.0 points	30

Eligibility

The eligibility requirements for students to apply for the Extension Program are determined by the University of Melbourne and are generally available only to students who have achieved outstanding results for a VCE Unit 3&4 study whilst enrolled in year 11.

Information on the Extension Program can be found at:

<http://futurestudents.unimelb.edu.au/info/school-students/extension-program>

<http://www.vcaa.vic.edu.au/Pages/vce/studies/studiesextension.aspx>



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