UPWEY HIGH SCHOOL

LATER YEARS
SUBJECT HANDBOOK
2027

ASPIRATION | RESPECT | KINDNESS

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A Message from our Principal

To the Later Years students of Upwey High School,

Whether you are now entering the Later Years Sub-School as a Year 10 student, continuing your studies and commencing VCE or VCE Vocational Major in Year 11 or finishing your final year of schooling in Year 12, your time at Upwey High School has never been more important. The choices you make now, about your studies, will set you up for success in many ways – whatever that may look like for your future. Your time in our Later Years Program will provide you the opportunity to reflect on your strengths, interests and abilities across a wide-range of areas.

The world around us is rapidly changing, and as a 21st century learner the skill, knowledge and experiences you will gain during your time as a student in our Later Years will provide you with an outstanding grounding and starting point for your life post-secondary schooling. The relationships you develop – with your peers and your teachers will be crucial to your success, but equally as important is looking after yourself.

Throughout your time in our Later Years Program, I encourage you to seek advice and guidance from your teachers, school leadership and our careers team. Knowledge is power, and being aware of the many wonderful pathways that exist post-schooling is so important for all students no matter what they study in Year 10, 11 or 12. Be true to yourself, work hard to pursue your dreams and always remember to be kind to those around you and yourself.

Finally, as your Principal, I am more than happy to assist you in any way I can over the course of your three years in your Later Years Program so do not hesitate to reach out.

Rachel Lynch

Principal

Year 10 Unit Descriptions

English Domain

English language learning and writing is important in helping students achieve success in school and later life. Reading, speaking and listening and writing are involved in teaching and learning throughout the whole range of subjects in the curriculum, and it is the English teacher's role to assist students to develop deeper thinking skills to prepare students for the rigours of the VCE.

English

In preparation for their final years of study in this subject, students will refine and consolidate their understanding and effective practice of the skills acquired throughout their learning experience. This will include a comprehensive review of the use of language to persuade, create and inform.

Students are taught how to write appropriately and effectively in a range of styles, for a variety of purposes and to be aware of their audience. Students are encouraged to write expressively and in detail about their thoughts, feelings, opinions and ideas. A range of writing is produced consisting of pieces of writing for different purposes and audiences. There will be a study of texts – including a novel and film.

Students continue to develop an understanding of how texts (novels, poetry, plays, films, media etc) are constructed. Students start to develop a critical understanding of the media and the differences between various media text types. Current media issues are studied and analysed and students develop their own responses to controversial topics.

A learning outcome given a high priority in Year 10 is learning to speak appropriately and with confidence in formal situations. Students will deliver a formal, persuasive oral presentation on a topic of their choice as well as smaller, informal individual and group presentations.

Literature

Literature can be chosen as an alternative to English. It involves the study and enjoyment of a wide range of literary forms: novels, poetry, plays, film and short stories, as well as an exploration of contemporary media texts and issues. It will also develop a student's oral presentation skills through discussions and formal debates. Literature focuses on the interaction between the text, the social, cultural or political context of its construction, and the context each individual reader brings to the text. This course is an introduction to VCE Literature but is also for the keen English student who wants to extend their skills.

Mathematics Domain

Year 10 Mathematics units are designed to enable students to:

- Apply mathematics in daily life and in future employment
- Develop a positive attitude to the subject through appreciation of the nature, power and scope of mathematical activity
- Develop mathematical knowledge and skill as preparation for VCE Mathematics
- Develop problem solving, modelling and investigative skills

Year 10 Mathematics

This unit provides the students with the necessary background for General Mathematics and Foundation Mathematics. All students will complete this course Semester 1.

Areas of study include simple and compound interest; linear equations and inequalities; algebraic and graphical representation of relations; surface area and volume; statistics including univariate and bivariate data; algebra including binomial expressions, substitution, simple algebraic functions and simultaneous equations; geometry of triangles and trigonometry, and probability.

Students will be assessed in several formats. These include assignments, problem solving, tests, ASAs and exams. It is an expectation that digital technologies (i.e. scientific calculator) will be used throughout the unit. Students who are planning to enter Units 1 and 2 of General Mathematics, Mathematical Methods or Specialist Mathematics are expected to purchase a CAS calculator (Casio Classpad).

Advanced Mathematics

Students who are intending on enrolling in Units 1 and 2 of Mathematical Methods and / or Specialist Mathematics for 2028 will be completing an advanced course in Semester 2, tailored for these subjects. They will be completing topics such as indices and surds; quadratic equations and graphing parabolas; logarithms and polynomials. These classes will be run in conjunction with the General Mathematics subject depending on numbers.

Science Domain

Year 10 Science

The Science Domain is offering several applied courses at Year 10 on the proviso that General Science be completed in Semester 1. This is particularly important for the Applied Chemistry / Physics semester unit.

Year 10 Science aims to provide students with an introduction to the traditional science disciplines of Biology, Chemistry and Physics taught in VCE. Each unit offers both experimental and theoretical components, uses real life examples and processes to enable students to make sense of the world around them.

The Biology unit consists of cell development, explains the role of DNA and genes in cell division (Meiosis and Mitosis) and Genetic Inheritance (personal characteristics). Chemistry unit looks at the Periodic Table of Elements, their atomic structure and compares the properties of a range of elements. Students will use atomic symbols to write chemical formula and balance chemical equations. During the Physics unit, students will develop qualitative and quantitative explanations of the relationships between distance, speed, acceleration, mass and force to predict and explain motion.

Science has three interrelated strands: Science Understanding, Science as a Human Endeavour and Science Inquiry. Science Understanding is evident when a person selects and integrates appropriate science knowledge to explain and predict phenomena and applies that knowledge to new situations. Science knowledge refers to facts, concepts, principles, laws, theories and models that have been established by scientists over time. Science Inquiry involves identifying and posing questions; planning, conducting and reflecting on investigations; processing, analysis and interpreting evidence; communicating findings. Science as a Human Endeavour explores the nature and development of science alongside the use and influence of science in society.

Environmental Science

This unit has been designed to prepare students for studies of Environmental Science at the VCE level. Environmental Science will allow students to explore the interrelationships between Earth's four systems. Students will examine how past and current human activities affect the environment and how future challenges can be managed sustainably. In undertaking this study, students will gain an understanding of the complexity of environmental decision-making and how innovative responses to environmental challenges can reduce pressure on Earth's natural resources and ecosystem services. They will investigate and evaluate environment related issues, alternative proposals, and responses to challenges by considering both short and long-term consequences for the individual, the environment and society. Students will conduct field work, experiments, and investigations into case studies in this subject. They will formulate hypotheses, collect and analyse data, and make evidence-based conclusions. Students will develop the capacity to critically evaluate the available evidence using informed decision-making to gain an awareness of ethical, social and political

contexts of decision-making around environmental issues. They will be expected to submit a series of practical reports and research tasks for assessment.

Students will formulate and refine questions and hypotheses to make reasoned predictions, test relationships and develop explanatory models when investigating scientific questions, problems and claims. They plan a range of valid, reproducible and safe scientific investigations and explain how they have addressed any ethical and cultural considerations when generating or using primary and secondary data. They select and use equipment to generate and record data, ensuring the use of suitable sample sizes and assessing the precision of multiple measurement readings. They select and construct a range of appropriate representations to organise, process and summarise data and information. They analyse and compare a variety of data and information to identify and explain qualitative and quantitative patterns, trends, relationships, assumptions and anomalies. They evaluate the validity and reproducibility of investigation methods including ways to improve the quality of data, and the validity of conclusions and claims.

Applied Chemistry and Physics

This unit has been designed to prepare students for future studies of Chemistry and Physics at the VCE level. It will look at atomic structure, chemical reactions and the types of bonding that exists between different substances with a focus on pharmaceutical chemistry. This will be practically based, with the emphasis placed on students linking this knowledge to the design and use of different materials. The students will undertake different types of chemical analysis and will be involved in an extended experimental investigation on one of the materials studied. The physical science component of this course will discuss the advantages and disadvantages of space exploration. They distinguish between different features in the universe and sequence key events in the origin and evolution of the universe, including an outline of the supporting evidence for the big bang theory. They also explain how wave and particle models describe energy transfer, and compare the properties, features and applications of waves. It will also include some astrophysics, nuclear energy, and modelling of natural radioactive decay to illustrate how stable atoms are formed. Students will be expected to submit a series of practical and research tasks for assessment and an analysis of a media release related to the topics studied.

Students will formulate and refine questions and hypotheses to make reasoned predictions, test relationships and develop explanatory models when investigating scientific questions, problems and claims. They plan a range of valid, reproducible and safe scientific investigations and explain how they have addressed any ethical and cultural considerations when generating or using primary and secondary data. They select and use equipment to generate and record data, ensuring the use of suitable sample sizes and assessing the precision of multiple measurement readings. They select and construct a range of appropriate representations to organise, process and summarise data and information. They analyse and compare a variety of data and information to identify and explain qualitative and quantitative patterns, trends, relationships, assumptions and anomalies. They evaluate the validity and reproducibility of investigation methods including ways to improve the quality of data, and the validity of conclusions and claims.

Applied Biology and Psychology

This unit has been designed to prepare students for future studies of Biology and Psychology at VCE level. The themes of Energy and Genetics are key foci of Biology. It looks at the movement of energy into living systems at both an organism and cellular level. Processes of Photosynthesis and Respiration are explored. The relationships between genetics and evolution, in particular how DNA and gene structure influence the evolution of species. The themes of Evolution and the Microscopic world are key foci of Biology. This unit will explore how scientific theories are developed and refined by examining the theory of evolution. We will examine the mechanisms of evolution and the evidence that supports the theory. Through the exploration of the microscopic world, we will examine key differences between bacteria and viruses and explore the biodiversity of bacteria through practical activities. Despite popular belief, Psychologists do not just work with people who have mental disorders or require counselling but have diverse roles that focus on behaviour not just the mind. The relationship between behaviour and mental processes are frequently studied. This unit looks at activities that improve personal development and wellbeing, attitude and stress management. Students explore the connection between genetics and environment, individual differences and group dynamics. Students will conduct scientific studies and formulate hypotheses, collect and analyse data. 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.

Students will formulate and refine questions and hypotheses to make reasoned predictions, test relationships and develop explanatory models when investigating scientific questions, problems and claims. They plan a range of valid, reproducible and safe scientific investigations and explain how they have addressed any ethical and cultural considerations when generating or using primary and secondary data. They select and use equipment to generate and record data, ensuring the use of suitable sample sizes and assessing the precision of multiple measurement readings. They select and construct a range of appropriate representations to organise, process and summarise data and information. They analyse and compare a variety of data and information to identify and explain qualitative and quantitative patterns, trends, relationships, assumptions and anomalies. They evaluate the validity and reproducibility of investigation methods including ways to improve the quality of data, and the validity of conclusions and claims.

Health and Physical Education Domain

The domain aims to contribute to the total personal development of each student. More specifically, the domain aims to provide the opportunity for students to demonstrate advanced skills in complex activities.

Students participating in Physical Education must wear correct PE uniform.

Advanced Sports Performance

This unit seeks to attract students who have a genuine interest in further exploring their personal interest in sporting performance focusing on developing students' knowledge and understanding of the energy systems, fitness components, fitness assessment, training methods to enhance performance & fitness. Students will participate in a variety of practical experiences focusing on developing practical knowledge of the energy systems to then apply the knowledge focusing on increasing personal fitness & performance. Students will then undertake a fitness unit where students will design and participate in a fitness training program to improve their own personal fitness & performance. Assessment will focus on participation in a variety of practical tasks to complete written laboratory reports, fitness pre and post testing, designing a training program, completion of a training journal.

Handball Sports

This subject is broken into both theory and practical sections. The practical component aims to develop the student's ability in the areas of ball handling, hand-eye coordination, body and spatial awareness, developing advanced skills in complex activities. Activities to be covered include basketball, European handball, netball, volleyball and other ball games where students will employ strategies to counter tactical challenges in game situations. The theory component will cover units on skill acquisition, classification of skills, feedback and human body systems (skeletal, muscular, cardiovascular and respiratory) and peer coaching.

Evaluation will include unit tests, peer coaching sessions and laboratory reports.

Health

In Year 10 Health, students will analyse the impacts of attitudes and beliefs about diversity on community connection and wellbeing and explore indigenous health outcomes. Students access, synthesise and apply health information from credible sources to propose and justify responses in the home, in the school and the community, by researching a health topic of their choice. Students will explore the five dimensions of health and wellbeing (physical, social, mental, emotional and spiritual) and will explore community facilities and initiatives that can improve all dimensions of health and wellbeing. Topics covered will include drug education, road safety and nutrition.

Outdoor Pursuits

This semester unit aims to build on camp experiences had in Year 7, 8 and 9 and work towards the ultimate goal of creating and maintaining healthy, positive and sustainable relationships between people and the natural environment.

Students will explore a number of activities that take place in the outdoors. These activities are designed to improve understanding of oneself, others and the environment and to do so in a safe and responsible manner. Through Outdoor Pursuits students will learn and demonstrate skills and knowledge relevant to the outdoor activities in which they are participating, develop leadership capabilities through planning and coordinating a range of outdoor experiences and examine perceptions of challenge, risk and safety in a variety natural outdoor settings.

Sport and Recreation

Year 10 Sport and Recreation is designed to engage students in practical experiences that develop lifelong skills in physical activity, teamwork, leadership and sports coaching/organisation.

This subject aims to:

- Promote regular physical activity and healthy lifestyle habits that contribute to physical and mental wellbeing
- To explore pathways in the sport and recreation industry, including coaching, officiating, event management, and community health promotion
- To foster leadership, collaboration, and effective communication through peer-led activities and team-based challenges
- To enhance student agency by involving them in the planning, delivery, and evaluation of recreational activities, such as coaching local primary school children for athletics or team sports, school cross country organisation, swimming sports and athletics sports officiation.

The subject will be broken down into 3 main focus areas

1. Physical Education and Sport Skills
   • Participation in a range of sports (e.g. invasion games, net/wall, striking/fielding sports)
   • Skill acquisition, game sense and strategy development
2. Recreation and Active Lifestyles
   • Exploration of non-competitive and lifelong recreational activities (e.g. yoga, bushwalking, gym training)
   • Promoting the value of physical activity for social, emotional and mental health
3. Peer Coaching and Leadership
   • Students take on roles such as coach, umpire, or team organiser

Event planning and project-based learning (e.g. organising a mini-tournament or school community based event)

Strong Mind, Strong Body

Year 10 Strong Mind, Strong Body is designed to foster the holistic development of students by integrating physical education with mental and emotional well-being. In a rapidly changing and demanding world, the connection between physical health and cognitive performance is well established. This subject equips students with the knowledge, skills and habits necessary to build physical strength, mental resilience and emotional balance. Students will engage in a range of activities to strengthen your whole body through Dance (various styles), Yoga, Pilates, Strength and Flexibility training along with other recreational activities.

This subject aims to

- **Promote Lifelong Health and Fitness:** Students develop a positive attitude towards physical activity laying the foundation for lifelong movement and wellness.
- **Support Mental Health and Resilience:** Through mindfulness, emotional regulation strategies and stress management techniques, students enhance their psychological strength and self-awareness.
- **Develop Self-Discipline and Confidence:** Participation in structured physical challenges and reflective practices fosters self-control, motivation and a growth mindset.

Surf Life Saving

This is a Semester 2 subject that runs for six months of timetabled classes but involves a voluntary commitment to the Surf Life Saving Program. Students will be introduced to beach awareness, surfing and surf life saving rescue and resuscitation procedures. Once students have obtained their Surf Bronze they will become active patrolling members of the Woolamai Beach Surf Life Saving Club and be expected to undertake patrol duties (usually on 3-5 occasions over the following summer season as an extra-curricular activity in Year 11 starting Nov until usually Easter of the following year). The option to continue with the program and attain additional Surf Life Saving certificates the following year level is at student discretion with additional costs.

Assessment is based on participation, written and practical tests evaluated against the essential learning standards, completion of a First Aid Certificate, Surf Bronze Medallion and other course work. Assessment will be undertaken during a 2 day First Aid camp (October) and 5 day camp (December) both at Woolamai Beach and Phillip Island.

Students *need to be competent swimmers* and will be required to complete a 200 metre freestyle swim trial at UHS's Aquatic Carnival prior to entry to this unit in Feb-March.

Humanities Domain

Business Management

Students explore how business engages in the community, with particular reference to ethical issues in society. They also explore how businesses seek to create and maintain a competitive advantage in the market, in particular through the exploration of marketing. Throughout the course, students will examine current case studies to apply their knowledge to real-world situations.

Geography

Geography shapes the way we live. Human societies for centuries have continued to interact with the natural environment. In this study of Geography, students will develop an understanding of the ways that the natural environment and humans can influence both positive and negative changes on each other. Through this, students will be able to investigate and draw their own conclusions upon how these changes have impacted the wellbeing of various communities from around the globe. Students will analyse case studies of how different regions of the world deal with natural disasters, global crisis and effectively manage environmental change.

History

Students will explore significant historical events and concepts and acquire a range of analytical skills which will benefit them in a variety of disciplines. The study of history draws links between contemporary society and its history, providing valuable knowledge and skills in furthering students' understanding of the forces that have shaped the modern world. Units that may feature over the course of the semester, according to student choice, range from the Causes and Consequences of WW2, Civil Rights, Environmental Activism and the rise of Terrorism.

Legal Studies

Students develop an understanding of legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria. Students investigate key concepts of criminal law and civil law and apply these to case studies to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. Students will look at the factors that affect the ability of parliament and courts to make laws, evaluate the ability of these law-makers to respond to the need for law reform, and analyse how individuals, the media and law reform bodies can influence a change in the law. There will be a study on the roles of the houses of parliament and the representative nature of parliament.

Philosophy

Students will explore the major branches of philosophy through exploration of key ideas and questions about our place in the world as well as the reality and our understanding of the world itself. Students will consider ideas of reality, knowledge, morality and logic, in which they will develop critical and creative thinking skills and improve their ability to consider and access some complex views and concepts about the world.

Politics

Politics is in the news every single day. In this study we will help students understand how Australian politics works and the role that Australia takes both domestically and overseas. A comparison with political systems will be made with a country in the Asian region. There will also be an investigation into how people make choices in their politics and the role that the media has in influencing these choices.

Languages Domain

The aim of studying a language is to extend students' knowledge and skills in speaking and writing in their chosen language.

Languages units are sequential and students undertaking Languages must complete both semesters.

Japanese

At this level students understand and use Japanese within the world of teenage experience on topics related to events of general interest, topics drawn from other learning areas and the media.

Students exchange information and opinions, and provide elaboration or detail (for example, time, sequence, quality), examples and explanations on topics, such as weekend activities, TV and cinema, sport and study, etc. They are able to produce written texts of approximately 400 words, incorporating various text types (for example, email message, report, speech, or description). Students are taught to grasp the overall meaning of texts, decipher new words and structures, and understand that it is not always necessary to know every word or language structure to make sense of text.

Students are able to gather information and provide a simple report on a current event in Japanese, with some explanation, for example, of why they are important, amusing or interesting. They can compare aspects of life in Japan with life in Australia, for example, the education system, daily life in a particular location, and identify advantages and disadvantages.

Technology Domain

Year 10 Technology builds on the skills and abilities that have been developed during Years 7, 8 and 9. Units presented place an increasing emphasis on the processes of design and evaluation and students are encouraged to develop their creative skills and to compare and evaluate the items they produce with other members of their class. The program also presents students with an introduction to the Technology units that the school currently offers at VCE level. All students should complete at least one unit of Technology in Year 10.

Digital Systems

Dive into the Future: Explore AI, build robots and uncover tomorrow's technology today! In this exciting Year 10 Digital Systems class, you'll delve into the world of Artificial Intelligence, get hands-on experience with robotics and discover the innovations shaping our future. Get ready to ignite your passion for technology and prepare for the careers of tomorrow.

Artificial intelligence (AI)

- What is AI?
- Real-World applications
- Ethical considerations

Robotics

- Understanding robots and components
- Types of robots
- Building and programming robots

Future of Technology

- Emerging technologies (quantum computing, blockchain, IoT)
- Technology trends and predictions
- Preparing for Tech careers

Food For Life

Students undertaking any Food Studies subjects are required to adhere to personal hygiene and kitchen safety protocols. Selection of any Food Studies subject implies that students understand and accept this.

This unit enables students to apply their theoretical understanding of the relationship between food and technology as they develop skills in food preparation. Students will learn about the key foods, origin, properties and ways to utilise these foods in the diet.

The unit also provides students with the opportunities to acquire knowledge and skills to make informed choices when selecting, storing, purchasing, preparing and consuming foods that will

contribute to a healthy lifestyle. Students develop and apply the knowledge and skills to prepare food safely and hygienically. Students use the design process, critical thinking and problem-solving skills to develop food products to suit specific situations.

This unit may provide a good introduction to students considering studies in VCE Food Studies.

Global Menus

Students undertaking any Food Studies subject are required to adhere to personal hygiene and kitchen safety protocols. Selection of any Food Studies subjects implies that students understand and accept this.

In Global Menus, students will prepare foods from around the world and consider their impact on Australian cuisine. They learn about the cultures of a range of nationalities, and the significance food has within those cultures. They will also discuss the global challenge of food security and ethical issues of food production. Students will develop a range of food preparation skills, including the identification of some unique international ingredients and techniques. Students will apply the design process to create a food product with origins from a global cuisine.

Product Design and Technologies

Product Design & Technologies provides opportunities for students to design, create, use and evaluate innovative products using a variety of materials. With a strong focus on the production and manufacturing process, students apply tools, equipment and processes to safely and efficiently produce a product from a design. Students also explore ethical design and sustainability, using the design process to identify design problems, apply critical thinking strategies, generate new ideas and produce a finished product for a targeted end user.

This course paths directly to VCE Product Design & Technologies while also providing opportunities for students interested in VCE Vocational Major, manufacturing, project management, trades, engineering or design pathways.

The Arts Domain

Ceramics

Students gain a greater understanding of the ceramic process. Students learn how to work with clay and glaze techniques. Prior knowledge of clay and its properties is helpful but not necessary. Students will study a variety of ceramics techniques, which will include a selection from hand building, wheel throwing, slip casting as well as the application of earthenware glazes. They will learn about the history of art movements and the place of ceramics in art history. Additionally, students learn to apply the art process to the development of both functional (bowls, cups, vessels) and sculptural (figurative, formal, decorative) ceramic works. This subject has a pathway into VCE Art Creative Practice.

Drama and Theatrical Studies

Students will develop a range of acting skills, create characters, develop and write scripts, rehearse and present works, develop skills and stagecraft; and learn to analyse and evaluate drama.

Students will be assessed according to their participation, leadership skills, commitment, enthusiasm, ability to work with others, quality of performance and performance analysis.

Media

The Year 10 subject of Media, is a practical introduction to the basic skills and concepts of media and production and is a direct pathway to VCE Media Studies. Students learn how to use the cameras and professional editing programs to create media products.

Students develop their skills by working in small groups on media exercises and projects. These range from scripting and storyboarding through to production and editing. Film production is examined from both analytical and practical perspectives.

Digital Sound Design (Digital Music)

Students learn how to mix tracks, program rhythms, manipulate MIDI, and use industry-standard digital audio workstations (DAWs) to bring musical ideas to life. From electronic dance music and hip-hop to cinematic soundscapes, students build a personal portfolio of original tracks and discover how today's music is engineered.

Instrumental Music Lessons

For many students, a musical journey begins at Upwey High School that develops into a lifelong passion. These lessons are separate from regular classes. This is not chosen through the course counselling process.

The ability to play a musical instrument is a unique and enriching experience. Music enables students an outlet to explore, share and express themselves in a creative and supportive environment. Students learn valuable team skills as they play in a collaborative musical ensemble and build confidence through performances. As well as being a lot of fun, music improves memory, coordination, organisation and concentration, all of which will help to create pathways for future learning.

At Upwey High School students are offered the opportunity to join the instrumental music program. By joining the program students have weekly lessons on their chosen instrument, ensemble rehearsals and many performance opportunities.

Music lessons are available for:

- Flute, Clarinet, Saxophone
- Trumpet, Trombone, French Horn, Tuba
- Violin, Viola, Cello, Double Bass
- Piano
- Guitar, Bass Guitar
- Singing
- Drums

Photography

In Photography, students will build on their awareness and understanding of black and white photography processes. Students will learn to use a 35mm SLR Camera and how to process film and print photographs using the darkroom facilities. Prior knowledge of how to use a camera is helpful but not necessary. Students will study a variety of techniques, which will include a selection from collage, montage, toner work, hand colouring, and may also include the use of computer imaging. Colour Digital Photography is also offered with an introduction to image manipulation and Photo Shop editing software. This subject has a pathway into VCE Art Creative Practice.

Visual Art

Students gain the opportunity to practically explore a variety of artistic mediums including; drawing, painting, and printmaking. These mediums are explored in order for students to produce a broad range of artworks by the completion of the semester. Students have the opportunity to experiment with different materials and techniques, through undertaking creation of artworks. Students will produce a folio which expresses their artistic development and reflections to build confidence and understand inherent characteristics of art forms as a foundation for VCE Art subjects.

Visual Communication Design

Visual Communication Design (VCD) introduces students to designing, drawing, and thinking for the fields of Design. These include Communication Design, Product Design, Environments, and Interactive Experiences as part of Environmental Design. Areas covered are drawing, layout and purposes of Communication Design, Product Design of objects that improve the quality of life, as well as the design ideas of environments for indoor, outdoor and virtual spaces in which we live work and play. The design of the shape of interactive experiences both in the physical world and online.

Students develop skills in presentation drawing and use Design Thinking applying the VCD Design Process throughout the course. Projects are completed in a broad range of media and methods using traditional hand drawn methods in combination with digital methods.

Students wishing to study Visual Communication Design in VCE Units 1 to 4 are advised to undertake this subject.

Unit Descriptions for VCE Units 1 – 4

English Domain

English

Unit 1
VCE Compulsory Unit: English (may be substituted with Literature)

Students will engage in reading and viewing set texts with a focus on personal connections with the narrative. Students also engage imaginatively with and develop an understanding of effective and cohesive writing within a set thematic framework.

Unit 2
VCE Compulsory Unit: English (may be substituted with Literature)

Students will further develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing, to further open possible meanings in a set text, and to extend their writing in response to the text. They will also analyse contemporary media texts and the way they persuade and influence their audience. Students complete a persuasive oral presentation on a topic of their choice.

Unit 3
VCE Compulsory Unit: English (may be substituted with Literature)

Students will apply reading and viewing strategies to critically engage with a text, considering its dynamics and complexities and reflecting on the motivations of its characters. They will also read and engage imaginatively and critically with mentor texts, and effective and cohesive writing within identified contexts to inspire their own creative processes, to generate ideas for their writing, and as models for effective writing.

Students study one text selected from the annual VCAA *VCE English and EAL Text List*.

Schools also select one idea from the Framework of Ideas for study. Mentor texts for each idea will be listed in the annual *VCAA VCE English and EAL Text List* (List 2).

Unit 4
VCE Compulsory Unit: English (may be substituted with Literature)

Students will consolidate their capacity to critically analyse texts and deepen their understanding of the ideas and values a text can convey. Students also analyse the use of argument and language, and visuals in texts that debate a contemporary and significant national or international issue that has appeared in the media since 1 September of the previous year. Students will apply their understanding of the use of argument and language to create a point of view text for oral presentation.

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

Literature

Unit 1
(May be studied instead of or in addition to English)

Students will consider how language structures and stylistic choices are used in different literary forms and types of texts and how their own reading practices contribute to their interpretations of texts. They also explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in a particular literary movement or genre.

Unit 2
(May be studied instead of or in addition to English)

Students will explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connection to Country, impact of colonization and its ongoing consequences, issues of reconciliation and reclamation. Students also focus on texts and historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text.

Unit 3
(May be studied instead of or in addition to English)

Students focus on how the form of a text contributes to its meaning. Students consider the form of the set text by constructing a close analysis of the text. They then reflect on the extent to which adapting the text to a different form affects its meaning.

Unit 4
(May be studied instead of or in addition to English)

Students focus on the imaginative techniques used for creating and recreating a literary text. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformation of texts.

Health and Physical Education Domain

Health and Human Development

Unit 1: Understanding health and wellbeing

Students explore health and wellbeing as a concept with varied and evolving perspectives and definitions. They come to understand that it occurs in many contexts and is subject to a wide range of interpretations, with different meanings for different people. As a foundation to their understanding of health, students investigate the World Health Organization's (WHO) definition and other interpretations. They also explore the fundamental conditions required for health as stated by the WHO, which provide a social justice lens for exploring health inequities. Students identify perspectives relating to health and wellbeing, and inquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islander Peoples. Students look at multiple dimensions of health and wellbeing, the complex interplay of influences on health outcomes and the indicators used to measure and evaluate health status. The unit equips students to consider their own health as individuals and as a cohort. They build health literacy by interpreting and using data in a research investigation into one youth health focus area, and by investigating the role of food.

Unit 2: Managing health and development

Students investigate transitions in health and wellbeing, and human development, from lifespan and societal perspectives. They explore the changes and expectations that are integral to the progression from youth to adulthood. Students apply health literacy skills through an examination of adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes. Students explore health literacy through an investigation of the Australian healthcare system from the perspective of youth and analyse health information. They investigate the challenges and opportunities presented by digital media and consider issues surrounding the use of health data and access to quality health care.

Unit 3: Australia's health in a globalised world

Students look at health and wellbeing, disease and illness as being multidimensional, dynamic and subject to different interpretations and contexts. They explore health and wellbeing as a global concept and take a broader approach to inquiry. Students consider the benefits of optimal health and wellbeing and its importance as an individual and a collective resource. They extend this to health as a universal right, analysing and evaluating variations in the health status of Australians. Students focus on health promotion and improvements in population health over time. Through researching health improvements and evaluating successful programs, they explore various public health approaches and the interdependence of different models. While the emphasis is on the Australian health system, the progression of change in public health approaches should be seen within a global context.

Unit 4: Health and human development in a global context

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

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

Physical Education

VCE Physical Education explores the complex interrelationships between biological, physiological, psychological, and sociocultural principles to understand their role in producing and refining movement for participation and performance in physical activity, sport and exercise. Through physical, written, oral and digital learning experiences, students apply theoretical concepts and reflect critically on factors that affect all levels of participation and performance in physical activity, sport and exercise.

The study of VCE Physical Education is suitable for students with a wide range of aspirations, including those who wish to pursue further formal study at tertiary or in vocation education and training settings. The study also prepares students for employment and/or further study at the tertiary level or in vocational education and training settings in fields such as exercise and sport science, health science, education, recreation, sport development and coaching, health promotion and related careers.

Unit 1: The human body in motion

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

Unit 2: Physical activity, sport, exercise and society

This unit develops students' understanding of physical activity, sport and exercise from a participatory perspective. Students are introduced to types of physical activity and the role that physical activity participation and sedentary behaviour plays in their own health and wellbeing, as well as in other population groups and contexts. Through a series of practical activities, students experience and explore different types of physical activity promoted within and beyond their community. They gain an appreciation of the movement required for health benefits and the consequences of physical inactivity and sedentary behaviour. They create and participate in a personal plan with movement strategies that optimise adherence to physical activity and sedentary behaviour guidelines.

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

This unit introduces students to principles used to analyse human movement from a biophysical perspective. Students use a variety of tools and coaching techniques to analyse movement skills and apply biomechanical and skill-acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correctly applying these principles can lead to improved performance outcomes. They investigate the characteristics and interplay of the 3 energy systems for performance during physical activity, sport and exercise. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Unit 4: Training to improve performance

In this unit, students' participation and involvement in physical activity will form the foundations of understanding how to improve performance from a physiological perspective. Students analyse movement skills and fitness requirements and apply relevant training principles and methods to improve performance at various levels (individual, club and elite). Students assess fitness and use collected data to justify the selection of fitness tests based on the physiological requirements of an activity, including muscles used, energy systems and fitness components. Students then consider all physiological data, training principles and methods to design a training program. The effectiveness of programs is evaluated according to the needs of the individual and chronic adaptations to training.

VCE VET Sport, Aquatics and Recreation

Certificate III is a two-year course which provides students with the practical skills and knowledge to prepare to work in the vast Sport, Aquatics and Recreation industry. The course is assessed through practical observations where students will participate in a range of sports, sports coaching and simulated workplace tasks or activities. The course is also assessed through theoretical assessments as well to achieve your competency in the below units:

Year One, Units 1 & 2:

- Participate in workplace health & safety
- Participate in conditioning for sport
- Maintain activity equipment
- Provide first aid & CPR
- Respond to emergency situations
- Maintain sport, fitness & recreation industry knowledge
- Provide a quality service & respond to interpersonal conflict
- Organise personal work priorities & continuously improve officiating skills and knowledge.

Year Two, Units 3 & 4:

This may be offered through the Mullum Cluster and not on site at Upwey High

- Conduct sport coaching sessions with Foundation level participants
- Facilitate groups
- Deliver recreation sessions
- Participate in UHS hazard identification, risk assessment and risk control.

Year 1 will have a larger practical component, with Year 2 focusing on theory to support understanding of practical elements.

Students are expected to attend all excursions, to be able to complete assessments tasks.

Humanities Domain

Business Management

Unit 1: Planning a business

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

Unit 2: Establishing a business

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

Unit 3: Managing a business

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

Unit 4: Transforming a business

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

Geography

Unit 1: Hazards and disasters

This unit investigates how people have responded to specific types of hazards and disasters. Hazards represent the potential to cause harm to people and or the environment, whereas disasters are defined as serious disruptions of the functionality of a community at any scale, involving human, material, economic or environmental losses and impacts. Hazards include a wide range of situations including those within local areas, such as fast-moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease. Students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them.

Students examine the processes involved with hazards and hazard events, considering their causes and impacts, human responses to hazard events and the interconnections between human activities and natural phenomena, including the impact of climate change. There may be considerable interconnection between the causes and types of hazards. For example, a region may be at risk from a number of hazards: high seasonal rainfall may result in a primary flood hazard which may in turn generate a secondary hazard of landslides. Students undertake fieldwork and produce a fieldwork report using the structure provided.

Area of Study 1: Characteristics of hazards
Area of Study 2: Response to hazards and disasters

Unit 2: Tourism: Issues and challenges

In this unit students investigate the characteristics of tourism: where it has developed, its various forms, how it has changed and continues to change and its impact on people, places and environments, issues and challenges of ethical tourism. Students select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. Tourism involves the movement of people travelling away from and staying outside of their usual environment for more than 24 hours but not more than one consecutive year (United Nations World Tourism Organization definition). The scale of tourist movements since the 1950s and its predicted growth has had and continues to have a significant impact on local, regional and national environments, economies and cultures. The travel and tourism industry is directly responsible for a significant number of jobs globally and generates a considerable portion of global GDP.

The study of tourism at local, regional and global scales emphasises the interconnection within and between places as well as the impacts, issues and challenges that arise from various forms of tourism. For example, the interconnections of climate, landforms, culture and climate change help determine the characteristics of a place that can prove attractive to tourists. There is an interconnection between places tourists originate from and their destinations through the development of communication and transport infrastructure, employment, and cultural preservation and acculturation. The growth of tourism at all scales requires appropriate management to ensure it is environmentally, socially, culturally and economically sustainable. Students undertake fieldwork and produce a fieldwork report using the structure provided.

Area of Study 1: Characteristics of Tourism
Area of Study 2: Impact of tourism: Issues and challenges

Unit 3: Changing the land

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

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

They investigate the distribution and causes of the two processes. They select one location for each of the processes to develop a greater understanding of the changes to land cover produced by these processes, the impacts of these changes and responses to these changes at different scales.

Area Of Study 1: **Land cover change**

Area Of Study 2: **Land use change**

Unit 4: Human population: trends and issues

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

Students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. They examine the dynamics of populations and their environmental, economic, social, and cultural impacts on people and places.

Area Of Study1: **Population dynamics**

Area Of Study 2: **Population issues and challenges**

History

Unit 1 and 2 - Twentieth Century History

The Twentieth Century was the century of the two biggest wars the world had ever known, conflicts that dominated the way events unfolded across the world, in Europe in particular. Units 1 and 2 history focus on the between and after war periods. Efforts to achieve peace and stability, the development of new political ideologies and the conflicts which arose out of these form the basis of Twentieth Century History. The Paris Peace Conferences, the League of Nations, the demise of the old Empires and colonialism, the Great Depression, Fascism, Nazism, Communism, Capitalism, the battle to impose democratic values, the rise of the USA as a superpower, the rise of Russia as a superpower, the rise of Asia as a power, the Atomic bomb, the United Nations, the Cold War, Civil Rights movements, the war in Vietnam – all important and relevant history. Feminism, racism, protest movements and terrorism all make up a part of the picture of the history of the Twentieth Century.

Unit 3 and 4 - Revolutions

In Units 3 and 4 Revolutions students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point in the collapse and destruction of an existing political order which results in extensive change to society. Revolutions are caused by the interplay of events, ideas, individuals and popular movements, and the interplay between the political, social, cultural, economic and environmental conditions. Their consequences have a profound effect on the political and social structures of the post-revolutionary society. Revolution is a dramatically accelerated process whereby the new regime attempts to create political, social, cultural and economic change and transformation based on the regime's ideology.

In these units, students construct an argument about the past using historical sources (primary sources and historical interpretations) as evidence to analyse the complexity and multiplicity of the causes and consequences of revolution, and to evaluate the extent to which the revolution brought change to the lives of people.

Unit 3

Causes of the French Revolution (1774 – 4 August 1789)

What were the significant causes of the revolution?

How did the actions of popular movements and particular individuals contribute to triggering a revolution?

To what extent did social tensions and ideological conflicts contribute to the outbreak of revolution?

Consequences of the French Revolution (1774 – 4 August 1789)

What were the consequences of revolution?

How did the new regime consolidate its power?

What were the experiences of those who lived through revolution?

To what extent was society changed and revolutionary ideas achieved or compromised?

Unit 4

Causes of the Russian Revolution (1896 – 26 October 1917)

What were the significant causes of the revolution?

How did the actions of popular movements and particular individuals contribute to triggering a revolution?

To what extent did social tensions and ideological conflicts contribute to the outbreak of revolution?

Consequences of the Russian Revolution (1896 – 26 October 1917)

What were the consequences of revolution?

How did the new regime consolidate its power?

What were the experiences of those who lived through revolution?

To what extent was society changed and revolutionary ideas achieved or compromised?

Legal Studies

VCE Legal Studies examines the institutions and principles that are essential to the Australian legal system. Students develop an understanding of the rule of law, law-makers, legal institutions, the relationship between the people and the Australian Constitution, the protection of rights in Australia, and the Victorian justice system. The study of VCE Legal Studies enables students to become active and informed citizens by providing valuable insight into their relationship with the law and the legal system.

Unit 1: The Presumption of Innocence

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

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

Unit 2: Wrongs and Rights

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

Unit 3: Rights and Justice

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

Students explore topics such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of

sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

Unit 4: The People, The Law and Reform

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

Philosophy

Unit 1: Philosophy, Existence and knowledge

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

Unit 2: Questions of Value

What are the foundations of our judgments about value? What is the relationship between different types of value? How, if at all, can particular value judgments be defended or criticised?

This unit enables students to explore these questions in relation to different categories of value judgment within the realms of morality, political and social philosophy and aesthetics. Students also explore ways in which viewpoints and arguments in value theory can inform and be informed by contemporary debates. They study at least one primary philosophical text, using the complete text or an extract, and develop a range of skills including formulating philosophical questions and developing philosophical perspectives.

Unit 3: The Good Life

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

Students engage with the set texts to develop perspectives on questions relating to the good life, including questions of relevance to contemporary living. Through critical reflection on ideas, perspectives, viewpoints and arguments, students develop and defend their own philosophical positions.

Unit 4: On Believing

In recent decades, developments in information and communication technologies have changed the way we share beliefs and acquire and justify knowledge. More than ever, we rely on the testimony of others, in particular, those we judge to be experts. But what is an expert? What qualities must testimony have to be trusted? And, in a world filled with multiple and often contradictory sources, how do we separate good beliefs from poor beliefs?

This unit focuses on interpersonal aspects of belief and belief formation, considering what it means to believe well by examining the nature of belief and the grounds for accepting or rejecting beliefs. Across 2 areas of study, students explore what our obligations are in relation to belief; when we should adjust or change our beliefs; and to what extent we should take responsibility for fostering the good beliefs of others and the conditions that make them possible. Through so doing, students are invited to consider the interrelationship between believing well and living well.

In Area of Study 1, students use concepts, arguments and viewpoints from the set texts to develop perspectives and justified philosophical positions on belief formation and justification in relation to a range of general questions. Students apply their learning from Area of Study 1 to identify and engage with epistemological issues that arise from case studies suggested by selected contexts.

Languages Domain

Japanese

Unit 1

Students develop an understanding of the language and culture/s of Japanese-speaking communities through the study of three or more topics from the prescribed themes. Each area of study in the unit must focus on a different subtopic. Students access and share useful information on the topics and subtopics through Japanese and consolidate and extend vocabulary and grammar knowledge and language skills. They focus on analysing cultural products or practices including visual, spoken or written texts. Cultural products or practices can be drawn from a diverse range of texts, activities and creations. These may include the following: stories, poems, plays, novels, songs, films, photographs, artworks, architecture, technology, food, clothing, sports and festivals. Students apply acquired knowledge of Japanese culture and language to new contexts.

Unit 2

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

Unit 3

Students investigate the way Japanese speakers interpret and express ideas, and negotiate and persuade in Japanese through the study of three or more subtopics from the prescribed themes and topics. Each area of study must cover a different subtopic, though teachers may choose to teach more than one subtopic in an area of study. Students interpret information, inform others, and reflect upon and develop persuasive arguments. They access and share useful information on the subtopics through Japanese, and consolidate and extend vocabulary and grammar knowledge and language skills. Students consider the influence of language and culture in shaping meaning and reflect on the practices, products and perspectives of the cultures of Japanese-speaking communities. They reflect on how knowledge of Japanese and Japanese-speaking communities can be applied in a range of contexts and endeavours, such as further study, travel, business or community involvement.

Unit 4

Students investigate aspects of culture through the study of two or more subtopics from the prescribed themes and topics. Area of Study 1 and Area of Study 2 may focus on the same subtopic. Area of Study 3 should cover a different subtopic to the subtopic/s chosen for Areas of Study 1 and 2. Students build on their knowledge of Japanese-speaking communities, considering cultural perspectives and language and explaining personal observations. Students consolidate and extend

vocabulary, grammar knowledge and language skills to investigate the topics through Japanese. Students identify and reflect on cultural products or practices that provide insights into Japanese-speaking communities. Cultural products or practices can be drawn from a diverse range of texts, activities and creations.

Mathematics Domain

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

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

- *Students intending to do Specialist Mathematics in Year 12* ***must*** *do both Mathematics Methods* ***and*** *Specialist Unit 1and 2 in Year 11*
- *Students who do* ***only*** *General Mathematics at Year 11 have only General Mathematics or Foundation Mathematics available to them in Year 12 as a recommendation*

Common Combinations of Mathematics Units:

Year 11	Year 12
Foundation Mathematics	Foundation Mathematics
General Mathematics, Mathematical Methods or Specialist Mathematics	General Mathematics
Mathematical Methods [preferably with Specialist Unit 1 and 2]	Mathematical Methods
Specialist Mathematics **plus** Mathematical Methods	Specialist Mathematics **plus** Mathematics Methods

Foundation Mathematics

Unit 1

In Unit 1 students consolidate mathematical foundations, further develop their knowledge and capability to plan and conduct activities independently and collaboratively, communicate their mathematical ideas and acquire mathematical knowledge skills to make informed decisions in their lives. The areas of study for Foundation Mathematics Unit 1 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', and 'Space and measurement'. Learning activities use contexts present in students' other studies, work and personal or other familiar situations.

Unit 2

The focus of Unit 2 is on extending breadth and depth in the application of mathematics to solving practical problems from contexts present in students' other studies, work and personal or other familiar situations. The areas of study for Foundation Mathematics Unit 2 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', and 'Space and measurement'.

Unit 3 and 4

The areas of study for Foundation Mathematics Unit 3&4 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', and 'Space and measurement'.

Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, diagrams and geometric constructions, algorithms, equations and graphs, with and without the use of technology. They should be able to apply estimation and computation using relevant mental and by-hand approaches. The use of technology for teaching and learning mathematics, for working mathematically, and in related assessment, will be incorporated throughout each unit as applicable.

General Mathematics

Unit 1 and 2

General Mathematics Units 1 and 2 cater for a range of student interests and provide preparation for the study of VCE General Mathematics at the Units 3 and 4 level. The areas of study for Unit 1 of General Mathematics are 'Data analysis, probability and statistics', 'Algebra, number and structure', 'Functions, relations and graphs' and 'Discrete mathematics. The areas of study for Unit 2 of General Mathematics are 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs' and 'Space and measurement'.

The use of computer algebra system (CAS) technology is incorporated throughout VCE Mathematics to support and develop learning of key knowledge and skills.

General Mathematics

Unit 3 and 4

General Mathematics Units 3 and 4 focus on real-life application of mathematics and consist of the areas of study 'Data analysis, probability and statistics' and 'Discrete mathematics'. Unit 3 comprises *Data analysis* and *Recursion and financial modelling*, and Unit 4 comprises *Matrices* and *Networks and decision mathematics*.

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

Mathematical Methods

Unit 1 and 2

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

The focus of Unit 1 is the study of simple algebraic functions and the areas of study are 'Functions, relations and graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'.

The focus of Unit 2 is the study of simple transcendental functions, the calculus of polynomial functions and related modelling applications. The areas of study are 'Functions, relations and graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'.

The use of computer algebra system (CAS) technology is incorporated throughout VCE Mathematics to support and develop learning of key knowledge and skills.

Mathematical Methods

Unit 3 and 4

Mathematical Methods Units 3 and 4 extend on the introductory study from Units 1 and 2. Units 3 and 4 consist of the areas of study 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Calculus', and 'Functions, relations and graphs' which are covered as a progression across both Units 3 and 4.

In undertaking Units 3 and 4 Mathematical Methods, students will learn to apply techniques, routines and processes in situations involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algorithms, algebraic manipulation, equations, graphs, differentiation, anti-differentiation, integration and inference, with and without the use of technology.

Specialist Mathematics

Unit 1 to 4

Specialist Mathematics Units 1 and 2 provide a course of study for students who wish to undertake an in-depth study of mathematics, with an emphasis on concepts, skills and processes related to mathematical structure, modelling, problem-solving, reasoning and proof. This study has a focus on interest in the discipline of mathematics and investigation of a broad range of applications, as well as development of a sound background for further studies in mathematics and mathematics related fields.

Mathematical Methods Units 1 and 2 and Specialist Mathematics Units 1 and 2, taken in conjunction, provide a comprehensive preparation for Specialist Mathematics Units 3 and 4. Study of Specialist Mathematics Units 3 and 4 also assumes concurrent study or previous completion of Mathematical Methods Units 3 and 4.

The areas of study for Specialist Mathematics Units 1 and 2 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs' and 'Space and measurement'

Specialist Mathematics Units 3 and 4 consist of the areas of study: 'Algebra, number and structure', 'Calculus', 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs', and 'Space and measurement'. The development of course content should highlight mathematical structure, reasoning and proof and applications across a range of modelling contexts with an appropriate selection of content for each of Unit 3 and Unit 4

Science Domain

Biology

Unit 1: How do organisms regulate their functions?

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

Unit 2: How does inheritance impact on diversity?

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

Unit 3: How do cells maintain life?

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

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

Students apply their knowledge of cellular processes through investigation of a selected case study, data analysis and/or a bioethical issue. Examples of investigation topics include, but are not limited to: discovery and development of the model of the structure of DNA; proteomic research applications; transgenic organism use in agriculture; use, research and regulation of gene technologies, including CRISPR-Cas9; outcomes and unexpected consequences of the use of enzyme inhibitors such as pesticides and drugs; research into increasing efficiency of photosynthesis or cellular respiration or impact of poisons on the cellular respiration pathway.

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

Students consider the continual change and challenges to which life on Earth has been, and continues to be, subjected to. They study the human immune system and the interactions between its components to provide immunity to a specific pathogen. Students consider how the application of biological knowledge can be used to respond to bioethical issues and challenges related to

disease.

Students consider how evolutionary biology is based on the accumulation of evidence over time. They investigate the impact of various change events on a population's gene pool and the biological consequences of changes in allele frequencies. Students examine the evidence for relatedness between species and change in life forms over time using evidence from palaeontology, structural morphology, molecular homology and comparative genomics.

Students demonstrate and apply their knowledge of how life changes and responds to challenges through investigation of a selected case study, data analysis and/or bioethical issue. Examples of investigation topics include, but are not limited to: deviant cell behaviour and links to disease; autoimmune diseases; allergic reactions; development of immunotherapy strategies; use and application of bacteriophage therapy; prevention and eradication of disease; vaccinations; bioprospecting for new medical treatments; trends, patterns and evidence for evolutionary relationships; population and species changes over time in non-animal communities such as forests and microbiota; monitoring of gene pools for conservation planning; role of selective breeding programs in conservation of endangered species; or impact of new technologies on the study of evolutionary biology.

Chemistry

VCE Chemistry enables students to explore the relationship between materials and energy through four themes: the design and composition of useful materials, the reactions and analysis of chemicals in water, the efficient production and use of energy and materials, and the investigation of carbon-based compounds as important components of body tissue and the materials used in society.

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

The development and use of materials for specific purposes is an important human endeavor. In this unit, students investigate the chemical properties and practical applications of a range of materials including metals, ionic and covalent compounds (i.e. polymers). Students are introduced to ways that chemical quantities are measured. They will consider how manufacturing innovations lead to more sustainable products being produced for society, using renewable raw materials and a transition from a linear economy towards a circular economy.

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

Society is dependent on the work of chemists to analyse the materials and products in everyday use. In this unit students analyse and compare different substances dissolved in water and the gases that may be produced in chemical reactions. Students explore applications of acid-base and redox reactions in society. Throughout the unit students use chemistry terminology, including symbols, formulas, chemical nomenclature and equations, to represent and explain observations. They will analyse primary data sets from their own investigations and evaluate the chemistry-based claims of secondary sources.

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

The global demand for energy and materials is increasing with world population growth. In this unit, students explore energy options and the chemical production of materials with reference to energy efficiencies, renewability, and to how to minimise their impact on the environment.

Students compare and evaluate different chemical energy resources and investigate the combustion of fuels. They consider the design purpose and operating principles of Galvanic, Fuel, and Electrolytic cells and calculate quantities in electrolytic reactions. Students analyse manufacturing processes with reference to factors that influence their reaction rates and extent.

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

Carbon is the basis of the diverse compounds found in living tissues and in fuels, food, medicines, and many materials used in everyday life. In this unit, students investigate the structural features, bonding, reactions, and uses of major families of organic compounds. They will consider how green chemistry principles are applied in the production of synthetic organic compounds or common medicines.

Students process data from instrumental analyses to confirm or deduce organic structures. Perform volumetric analyses to determine the concentrations of organic chemical mixtures. They predict the products of reaction pathways and design pathways to produce compounds from given starting materials. Students investigate key food molecules including carbohydrates, proteins, lipids and vitamins and use calorimetry to determine the energy released in the combustion of food.

Environmental Science

Unit 1: How are Earth's dynamic systems interconnected to support life?

Students examine the processes and interactions occurring within and between Earth's four interrelated systems – the atmosphere, biosphere, hydrosphere and lithosphere. They focus on how ecosystem functioning can influence many local, regional and global environmental conditions such as plant productivity, soil fertility, water quality and air quality. Students explore how changes that have taken place throughout geological and recent history are fundamental to predicting the likely impact of future changes. They consider a variety of influencing factors in achieving a solutions-focused approach to responsible management of challenges related to natural and human-induced environmental change.

Unit 2: What affects Earth's capacity to sustain life?

Students consider pollution as well as food and water security as complex and systemic environmental challenges facing current and future generations. They examine the characteristics, impacts, assessment and management of a range of pollutants that are emitted or discharged into Earth's air, soil, water and biological systems, and explore factors that limit and enable the sustainable supply of adequate and affordable food and water.

Unit 3: How can biodiversity and development be sustained?

Students focus on environmental management through the application of sustainability principles. They explore the value of the biosphere to all living things by examining the concept of biodiversity and the ecosystem services important for human health and well-being. They analyse the processes that threaten biodiversity and evaluate biodiversity management strategies for a selected threatened endemic animal or plant species. Students use a selected environmental science case study with reference to sustainability principles and environmental management strategies to explore management from an Earth systems perspective, including impacts on the atmosphere, biosphere, hydrosphere and lithosphere.

Unit 4: How can climate change and the impacts of human energy use be managed?

Students explore different factors that contribute to the variability of Earth's climate and that can affect living things, human society and the environment at local, regional and global scales. Students compare sources, availability, reliability and efficiencies of renewable and non-renewable energy resources in order to evaluate the suitability and consequences of their use in terms of upholding sustainability principles. They analyse various factors that are involved in responsible environmental decision-making and consider how science can be used to inform the management of climate change and the impacts of energy production and use.

Physics

Physics seeks to understand and explain the physical world, both natural and constructed. It examines models and ideas, which are sometimes challenged as new knowledge develops.

Unit 1

Students study light using the wave model and thermal energy using a particle model forming an understanding of the fundamental physics ideas of reflection, refraction and dispersion. They use these to understand observations made of the world such as mirages and rainbows. They investigate energy transfers and explore how light and thermal energy relate to one another. They apply light ideas to explain how light is used through optical fibres in communication, and how physics is used to inform global warming and climate change.

Students will build on their understanding of energy to explore energy that derives from the nuclei of atoms. They learn about the properties of the radiation from the nucleus and the effects of this radiation on human cells and tissues and apply this understanding to the use of radioisotopes in medical therapy.

Students explore the transfer of energy from the nucleus through the processes of fission and fusion and apply these ideas to evaluate the viability of nuclear energy as an energy source for Australia.

Modelling is a useful tool in developing concepts that explain physical phenomena that cannot be directly observed. In AOS 3, students develop conceptual models to analyse electrical phenomena and undertake practical investigations of circuit components. Concepts of electrical safety are developed through the study of safety mechanisms and the effect of current on humans. Students apply and critically assess mathematical models during experimental investigations of DC circuits. They explore electrical safety and the use of transducers to transfer energy in common devices.

Unit 2

Students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary and apply these concepts to a chosen case study of motion.

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

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

Unit 3

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

Unit 4

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

Psychology

Unit 1: How are behaviour and mental processes shaped?

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

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

Students evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of individuals and groups, recognising that different cultural groups have different experiences and values. Students are encouraged to consider Aboriginal and Torres Strait Islander people's experiences within Australian society and how these experiences may affect psychological functioning. Students examine the contribution that classical and contemporary research has made to the understandings of human perception and why individuals and groups behave in specific ways. Students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted.

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

Students investigate the contribution that classical and contemporary research has made to the understanding of the functioning of the nervous system and to the understanding of biological, psychological and social factors that influence learning and memory. Students investigate how the human nervous system enables a person to interact with the world around them. They explore how stress may affect a person's psychological functioning and consider stress as a psychobiological process, including emerging research into the relationship between the gut and the brain in psychological functioning.

Students investigate how mechanisms of learning and memory lead to the acquisition of knowledge and the development of new and changed behaviours. They consider models to explain learning and memory as well as the interconnectedness of brain regions involved in memory. The use of mnemonics to improve memory is explored, including Aboriginal and Torres Strait Islander peoples' use of place as a repository of memory.

Unit 4: How is mental wellbeing supported and maintained?

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

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

Technology Domain

Applied Computing: Unit 1 and 2

Unit 1

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

Area of Study 1: **Data Analysis:** In this area of study, students use software tools to create data visualisations in response to teacher-provided solution requirements, designs and data. The software tools are used for the interpretation and manipulation of data to draw conclusions and create data visualisations that represent their findings.

Area of Study 2: Programming: In this area of study, students use an appropriate OOP language to create a working software solution in response to teacher-provided solution requirements. Students apply the problem-solving stages of design and development to develop the software solution. Students use a range of design tools to represent the software solution. They develop their working software solution using a range of features of the selected OOP language. The solution should include the use of data structures, naming conventions, internal documentation and validation

Unit 2

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

Area of Study 1: Innovative Solutions: In this area of study, students work collaboratively to design and develop an innovative solution to an identified problem, need or opportunity. They apply all stages of the problem-solving methodology to investigate the use of digital devices and emerging digital technologies and their applications. The innovative solution may take the form of a proof of concept, prototype or product. The final form of the innovative solution can be decided by the students in consultation with their teacher, because the complexity of the innovative solution to address the problem, need or opportunity may not allow for either a working prototype or product to be developed. Since the emphasis is on a collaborative project, students should negotiate a problem, need or opportunity to research and then design and develop their innovative solution.

Area of Study 2: Cyber Security: The awareness of cyber security incidents and how to be protected from them is more important than ever, especially with the proliferation of mobile devices and online services. In this area of study, students investigate emerging trends in cyber security and how networks enable data and information to be exchanged locally and globally. Students examine the hardware and software components and procedures required to connect, maintain and protect wired, wireless and mobile communications technologies. They apply this knowledge to develop an understanding of cyber security issues when investigating security threats to data and information on networks. Students examine network vulnerabilities and the strategies for reducing risks and

mitigating threats to networks, taking into account key legal and ethical requirements. Frameworks such as Australia's Artificial Intelligence (AI) Ethics Principles and the Essential Eight enable students to follow current industry practice when considering the use of artificial intelligence and strategies for protecting the security of data and information within networks.

Data Analytics: Unit 3 and 4

Unit 3

In this unit students apply the problem-solving methodology to analyse data using software tools such as database, spreadsheet and data visualisation software to create data visualisations. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

In Area of Study 1, students respond to teacher-provided solution requirements and designs to develop data visualisations. They apply specific functions of database and spreadsheet software tools to manipulate, cleanse and analyse data. Students then use a data visualisation software tool to develop data visualisations that present their findings. In Area of Study 2, students propose a research question, prepare a project plan, collect, analyse and prepare data, and design infographics and/or dynamic data visualisations. Area of Study 2 forms the first part of the School-assessed Task (SAT) that is completed in Unit 4, Area of Study 1.

Area of Study 1: Data Analytics: In this area of study, students identify, select and extract authentic data from large repositories. They manipulate the data to present findings as data visualisations in response to teacher-provided solution requirements and designs. Students use database, spreadsheet and data visualisation software tools to undertake the problem-solving activities of manipulation, validation and testing in the development stage.

Area of Study 2: **Data Analytics - Analysis and Design**: In this area of study, students independently determine and propose a research question and collect and analyse data from both primary and secondary sources. This is the first part of the School-assessed Task, involving analysis and design, with the second part undertaken in Unit 4, Area of Study 1.

Unit 4

In this unit students focus on determining the findings of a research question by developing infographics and/or dynamic data visualisations based on large complex data sets, consider data breaches and investigate the security strategies used by an organisation to protect data and information from cyber security threats.

Area of Study 1: Data Analytics - Development and Evaluation: In this area of study, students develop the design they prepared in Unit 3, Area of Study 2 into infographics and/or dynamic data visualisations that address a research question by applying the problem-solving methodology stages of development and evaluation.

Area of Study 2: Cyber Security - Data Security: Major data breaches involving large Australian companies and businesses have increased over the last few years. These have impacted millions of Australians. In this area of study, students investigate emerging trends in cyber security and focus on

data and information security and its importance to organisations. Students investigate security strategies used by an organisation to manage the collection, communication and security of data and information in its networked environment. They examine the threats to this data and information and evaluate the methods an organisation uses to protect its data and information. Students consider the consequences for an organisation that fails to protect its data and information. They recommend strategies to reduce the threats to data and information, taking into account the key legal requirements and any ethical issues faced by the organisation, including those posed by the use of artificial intelligence.

Food Studies

Students undertaking Food Studies are required to comply with personal hygiene and kitchen safety protocols. Selection of Food Studies subjects implies that students understand and accept this.

Unit 1: Food origins

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

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

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

Unit 2: Food makers

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

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

opportunities.

Unit 3: Food in daily life

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

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

Practical activities enable students to understand how to plan and prepare food to cater for various dietary needs through the production of everyday food that facilitates the establishment of nutritious and sustainable meal patterns.

Unit 4: Food issues, challenges and futures

In this unit students examine debates about Australia's food systems as part of the global food systems and describe key issues relating to the challenge of adequately feeding a rising world population.

In Area of Study 1 students focus on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. They also consider the relationship between food security, food sovereignty and food citizenship. Students consider how to assess information and draw evidence-based conclusions, and apply this methodology to navigate contemporary food fads, trends and diets. They practise and improve their food selection skills by interpreting food labels and analysing the marketing terms used on food packaging.

In Area of Study 2 students focus on issues about the environment, climate, ecology, ethics, farming practices, including the use and management of water and land, the development and application of innovations and technologies and the challenges of food security, food sovereignty, food safety and food wastage. They research a selected topic, seeking clarity on current situations and points of view, considering solutions and analysing work undertaken to solve problems and support sustainable futures. The focus of this unit is on food issues, challenges and futures in Australia.

Practical activities provide students with opportunities to apply their responses to environmental and ethical food issues, reflect on healthy eating recommendations of the Australian Dietary Guidelines and the Australian Guide to Healthy Eating, and consider how food selections and food choices can optimise human and planetary health.

Product Design and Technologies

Unit 1: Design practices

In unit 1, students apply design thinking strategies to research, critique and communicate a response to a need or opportunity, they work collaboratively and in teams to develop and propose graphical product concepts that address a design brief.

Students trial and test, evaluate and use materials, tools and processes to determine their chosen product concept and produce a product through implementing a scheduled production plan, as well as reflect on and make suggestions for future improvements when working collaboratively and as a team.

Unit 2: Positive impacts for end users

In unit 2, students research and discuss how designers and end users are influenced by culture. They investigate and critique products using the factors that influence design, making judgments about the success or failure of the products, with an emphasis on positive impacts for end users.

Students use the design process to design and make an inclusive product that responds to a need or opportunity of an end user(s) that addresses positive impacts in relation to belonging, access, usability and / or equity.

Unit 3: Ethical product design and development

In unit 3, students critique examples of ethical product design and innovation within industrial settings. They investigate a need or opportunity that relates to an ethical problem and formulate a design brief, conducting research to analyse current market needs or opportunities and propose, evaluate and critique graphical product concepts.

Using design thinking strategies, students generate and evaluate product concepts related to ethical design, synthesise and apply feedback to justify a final proof of concept, and plan to make the product safely.

Unit 4: Production and evaluation of ethical designs

In unit 4, students synthesise data to evaluate a range of products, including making judgments about the success of each product, and discuss product designs in regard to entrepreneurial activity, innovation and sustainability and / or other ethical considerations.

Students implement a scheduled production plan produced in unit 3 using a range of materials, tools and processes. They manage time and other resources effectively and efficiently to safely produce the product designed in Unit 3.

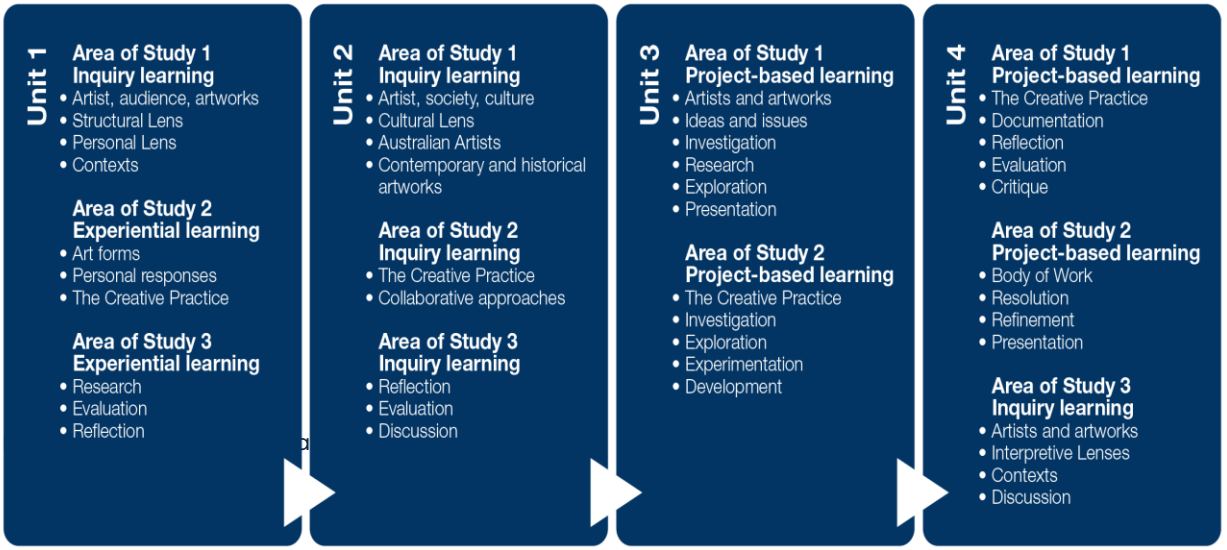
The Arts Domain

Art Creative Practice

This subject introduces the role of art in contemporary and historical cultures and societies, and values the meaningful and unique impact of artists on the development of arts knowledge, tradition and experiences, both locally and globally. Students build an understanding of how artists, through their practice and the artworks they create, communicate personal experiences and ideas, and cultural values, beliefs and viewpoints. In this study, students view artworks and investigate the working practices of artists from different cultures and periods of time. Students are challenged to articulate their understanding of the meanings and messages contained within artworks and to examine the effects of artworks upon the viewers or audiences who experience them. Students learn to pose and solve problems, and work independently and collaboratively, to create and convey meaning through art making.

Throughout the study students have opportunities to construct knowledge and communicate personal interpretations by working as both artist and viewer or audience. In making artworks, students use their creativity to solve problems and experiment with visual language and expression. They create personal responses and meaning by applying diverse materials, techniques and art processes. Students develop skills in research, art history and critical theory to analyse, interpret and debate the ideas and issues that are raised by artworks and by artists in their practice.

VCE Art Creative Practice uses inquiry learning to develop students' critical and creative thinking skills and individual responses through researching, exploring, experimenting, developing, reflecting, refining and resolving. Through Making and Responding, and through the presentation of artworks in different contexts, students understand and appreciate the role of visual art in past and present traditions, societies and cultures.By building skills in visual literacy and creative and critical thinking, which are essential to both artist and viewer or audience, learning in VCE Art Creative Practice empowers young people to be discerning and to engage with and make sense of what they see and experience. Students are equipped with practical and theoretical skills that enable them to follow pathways into tertiary art education, further training in art-related careers, as well as roles that require highly developed critical and conceptual engagement with ideas and issues. VCE Art Creative Practice also offers students opportunities for personal development and encourages them to make an ongoing contribution to the culture of their community through participation in lifelong art-making practices.



Media

Unit 1: Media forms, representations and Australian stories

In this unit, students develop an understanding of audiences and the core concepts underpinning the construction of representations and meaning in different media forms. They explore media codes and conventions and the construction of meaning in media products. Students analyse how representations, narratives and media codes and conventions contribute to the construction of the media realities that audiences read and engage with. Students gain an understanding of audiences as producers and consumers of media products. Through analysing the structure of narratives, students consider the impact of media creators and institutions on production.

Students work in a range of media forms and develop and produce representations to demonstrate an understanding of the characteristics of each media form and how they contribute to the communication of meaning. Students develop an understanding of the features of Australian fictional and non-fictional narratives in different media forms. They develop research skills to investigate and analyse selected narratives, focusing on the media professionals' influence on production genre and style. They experience the voices and stories of Aboriginal and Torres Strait Islander creators to gain an understanding and appreciation of how their stories contribute to our cultural identity.

Unit 2: Narrative across media forms

In this unit, students further develop an understanding of the concept of narrative in media products and forms in different contexts. Narratives in both traditional and newer forms include film, television, digital streamed productions, audio news, print, photography, games and interactive digital forms. Students analyse the influence of developments in media technologies on individuals and society; design, production and distribution of narratives in the media; and audience engagement, consumption and reception. Students undertake production activities to design and create narratives that demonstrate an awareness of the structures and media codes and conventions appropriate to corresponding media forms.

Unit 3: Media narratives contexts and pre-production

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

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

In this unit students focus on the production and post-production stages of the media production process, bringing the pre-production plans created in Unit 3 to their realisation. Students refine their media production in response to feedback and through personal reflection, documenting the iterations of their production as they work towards completion.

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

Visual Communication Design

Visual Communication Design is distinct in its study of visual language and the role it plays in communicating ideas, solving problems and influencing behaviours. Students learn how to manipulate type and imagery when designing for specific contexts, purposes and audiences. They choose and combine manual and digital methods, media and materials with design elements and principles. In doing so, students learn how aesthetic considerations contribute to the effective communication and resolution of design ideas, and how an understanding of visual language, its role and potential is the foundation of effective design practice.

The study is made up of four units.

Unit 1: **Finding, reframing and resolving design problems**
Area of Study 1: Reframing design problems
Area of Study 2: Solving communication problems
Area of Study 3: Design's influence and influences on design

Unit 2: **Design contexts and connections**
Area of Study 1: Design, place and time
Area of Study 2: Cultural ownership and design
Area of Study 3: Designing interactive experiences

Unit 3: **Visual communication in design practice**
Area of Study 1: Professional design practice
Area of Study 2: Design analysis
Area of Study 3: Design processes: defining problems and developing ideas

Unit 4: **Delivering design solutions**
Area of Study 1: Design process: refining and resolving design concepts
Area of Study 2: Presenting design solutions

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

Students explore how designers visually communicate concepts when designing messages, objects, environments and interactive experiences. They work both together and independently to find and address design problems, making improvements to services, systems, spaces and places experienced by stakeholders, both in person and online. Students employ a design process together with convergent and divergent thinking strategies to discover, define, develop and deliver design solutions. Drawings are used to visually represent relationships, ideas and appearances, while models and prototypes are produced for the purposes of testing and presentation.

Theatre Studies: Unit 1 and 2

Unit 1: History styles and convention pre 1945

This unit focuses on the application of acting, direction and design in relation to theatre styles and their conventions pre-1945, that is, from the era up to and including 1944. Students work in production roles with scripts from specific periods that fall between the beginning of theatre history until the end of 1944 focusing on at least two theatre styles, their conventions and histories. They study innovations in theatre production through the styles they explore and apply this knowledge to their interpretations of works.

Students develop knowledge and skills about theatre production processes, including dramaturgy, planning, development, and performance to an audience, and they apply this knowledge and skill to their own work. They study safe, ethical, inclusive and sustainable (where possible, environmentally sustainable) working practices in theatre production.

Unit 2: Contemporary theatre styles and movements

In this unit, students study contemporary theatre practice through the exploration of scripts from 1945 to the present day. They select scripts from either two distinct theatre styles OR a theatre movement between 1945 and the present day. In either option, students should study at least one Australian play.

Contemporary theatre movements can be defined as performance styles from 1945 onwards that push the boundaries of traditional theatre styles and conventions. They often consist of a range of conventions and features and can cut across art forms, genres and disciplines.

This unit focuses on the application of acting, direction and design in relation to contemporary theatre practice from 1945 to the present day. Students work in production roles to interpret scripts. They study developments and innovations in theatre and apply this knowledge to their own work.

Students develop knowledge of and skills relating to, theatre production processes that include dramaturgy, planning, development and presentation to an audience, and they apply these to their own work. They study safe, ethical, inclusive and sustainable working practices (where possible, using environmentally sustainable approaches) in theatre production. They develop skills in theatre production analysis and evaluation, which they apply to their own work and to the work of other practitioners.

Unit 3 and 4 will be offered in 2028

Music

VCE Music comprises one subject across Units 1 and 2, which splits into three subject offerings at the Unit 3 + 4 level, which differ principally in whether a student is playing notated music, learning from the recording, or undertaking an investigation. Completion of Units 1 and 2 is recommended before undertaking any of the Unit 3 and 4 offerings, as is experience in learning and playing an instrument. Enrolling in regular instrumental music lessons is a condition of class participation.

VCE Music: Units 1 and 2

Students prepare and perform a program of solo and group works. They also arrange, compose or improvise short pieces of their own creation, documenting and presenting them. Students listen to a range of music and respond critically, analysing the musical elements and compositional approaches.

Music Contemporary Performance: Units 3 and 4

Students prepare a program of solo or group works which uses the recording as the primary 'text'. They research and develop technical aspects of their playing and investigate various interpretative possibilities in developing their own performance 'voice'. Students also developing their understanding of the elements of music, musical concepts and compositional devices, being able to identify, recreate and notate music language concepts.

Music Repertoire Performance: Units 3 and 4

Students prepare a program of solo or group works which takes the notated score as the primary 'text'. They research and develop technical aspects of their playing, and investigate various interpretative possibilities in developing their own performance 'voice'. Students also developing their understanding of the elements of music, musical concepts, and compositional devices, being able to identify, recreate and notate music language concepts.

Music Inquiry: Units 3 and 4

This study offers pathways for students whose main interest is a combination of performing, composing/arranging and investigating music through music making, analysing and responding in relation to their particular interests. It recognises that music is a frequently collaborative art where students work with others and at other times individually.

VCE VET Music Performance

This subject will also suit students enrolled in VCE music as it will compliment the performance aspect of the subject.

VET Music (Performance) provides students with the opportunity to apply a broad range of knowledge and skills in varied work contexts in the music industry. Units 1 and 2 can include making a music demo, composing simple songs or musical pieces and developing ensemble skills. Units 3 and 4 offer scored assessment and include units such as developing improvisation skills, preparing

for performance and performing music as part of a group or as a soloist.

VET Music (Performance) offers students the chance to develop practice skills in performance, setting up stages for live performance, developing repertoire, rehearsal and practice skills.

With a limited focus on theoretical skills students can focus on their practical skills and other aspects of music that the VCE neglects e.g OHS, copyright, improvisational skills, stagecraft, etc.

VCE Vocational Major

Vocational Major – School Based Apprentice or Traineeship

The VCE Vocational Major (VM) is a vocational and applied learning program within the VCE designed to be completed over a minimum of two years. The VCE VM will give students greater choice and flexibility to pursue their strengths and interests and develop the skills and capabilities needed to succeed in further education, work and life.

It prepares students to move into apprenticeships, traineeships, further education and training, university (via non-ATAR pathways) or directly into the workforce.

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

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

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

- *3 VCE VM Literacy (including a Unit 3–4 sequence)*
- *2 VCE VM Numeracy*
- *2 VCE VM Work Related Skills units*
- *2 VCE VM Personal Development Skills units, and*
- *2 VET credits at Certificate II level or above (180 nominal hours – Upwey High School students will typically be completing a Cert III in VET as a part of their School Based Apprenticeship or Traineeship)*

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

The VCE VM can be tailored to the needs and interests of the student, to keep them engaged while developing their skills and knowledge. Students can also include other VCE studies and VET, and can receive structured workplace credit. Students will undertake 16 units over the two years and must complete all to obtain their VCE VM.

Example program of VCE VM pathway

Year 11 (Monday, Tuesday, Thursday)	Year 12 (Monday, Tuesday, Thursday)
Unit 1 & 2 VM Numeracy	Unit 3 & 4 VM Numeracy
Unit 1& 2 VM Literacy	Unit 3& 4 VM Literacy
Unit 1 & 2 Personal Development Skills	Unit 3 & 4 Personal Development Skills
Unit 1 & 2 Work Related Skills	Unit 3 & 4 Work Related Skills
School Based Apprenticeship Wed or Fri TAFE in conjunction with SBAT Wed or Fri	School Based Apprenticeship Wed or Fri TAFE in conjunction with SBAT Wed or Fri

Please note: Due to the contact hours expected for students to adequately complete the VCE Vocational Major certificate, UHS have moved from a two day per week to a three day per week in school model, for both Year 11 and 12 cohorts as of 2027.

Assessment of VCE Vocational Major studies

Each VCE VM unit of study has specified learning outcomes. The VCE VM studies are competency based. All assessments for the achievement of learning outcomes, and therefore the units, are school-based and assessed through a range of learning activities and tasks.

Unlike other VCE studies there are no external assessments of VCE VM Unit 3–4 sequences, and VCE VM studies do not receive a study score.

The VCE VM studies do not contribute to the ATAR. To receive an ATAR a student must complete a scored Unit 3-4 sequence from the English group and three other Unit 3–4 scored sequences.

Students must achieve two or more graded assessments in these scored sequences.

Management of the VCE Vocational Major

Head Start works in collaboration with students in the program, along-side School staff, work place employers and VET course teachers and administrators. There is an interview and selection process for entry into this program.

A school liaison officer works within the School one day per week, as a representative of the Head Start program, meeting with each student each week, to discuss progress and challenges, and determining ways to move forward in the program positively.

We highly recommend all students undertake a School Based Apprenticeship or Traineeship (SBAT) as part of their VM Program. Where they aren't successful in achieving or being signed up for an SBAT, students will not be supported by Head Start and will be required to undertake Structured Workplace Learning one day a week.