Nunawading Christian College

Year 7-12
Curriculum Overview
2022

Index

Year 7 program

Core subjects:

- English
- Encounter
- Mathematics
- Science
- Physical Education
- French or English as an Additional Language
- EISM Sport
- Chapel

Semester subjects:

- Geography
- History
- STEM
- Digital Technology
- Drama
- Food
- Civics & Money Matters
- Art

English (Boys & Girls)

Girls & Boys are gender split for Year 7 English.

Semester 1: Students focus on developing their skills in language conventions and explore the mechanics of analytical and creative writing through the study of a range of texts, mostly persuasive language used in advertising. They pay close attention to the themes, issues and ideas present in all texts and analyse how language can be used to both engage and influence a particular audience. In addition, students explore the ways in which authors and directors are able to create a setting, develop interesting characters, build tension and write using humour to communicate ideas. Students study a selected text (‘Boy’ by Roald Dahl) and investigate how the writer uses humour as part of his unique style when writing an autobiography.

Semester 2: Students explore the mechanics of analytical and creative writing through the study of novels. In the study of these texts, students pay close attention to the themes, issues and ideas present and analyse textual evidence to support viewpoints. In addition, they explore the storytelling process considering the ways in which writers create tension, setting and characters. Students also write analytical textual responses and design their own 'story worlds' using clay and animation.

7 English as an Additional Language

English as an Additional Language (EAL) students follow a pathway of development in learning English that is different from students for whom English is the first language. Students in Years 7-10 are placed in Stage SL, S1, S2, S3 or S4 in the areas of Speaking and Listening, Reading and Writing.

7 Encounter

Semester 1: An overview of Christianity is followed by the topics ‘War in Heaven', 'Creation and the Fall' and ‘Jesus’ Life on Earth’. This gives students a panoramic view of the big questions addressed by Christianity, including the conflict between good and evil, God's creation of the world, how the world is filled with incredible beauty and design as well as Jesus’ life on earth. The recurring theme is the expression of God’s love for each of us.

Semester 2: In 'Victory' students investigate God's gift to us, His Son Jesus. ‘On the Cross’ focuses on Jesus’ sacrifice for the salvation and healing of humanity. In 'Transformation' students explore Jesus' encounter with people, looking at 'Nicodemus' and the 'Woman at the Well', as recorded in the gospel of John. They focus on the fact that God can transform lives regardless of circumstances and this theme is also explored in ‘Jesus Calming the Storm’ and ‘Zacchaeus’. In response to the gift of life we receive, students consider random acts of kindness and their response to issues in the world.

7 Maths

Maths Support Program
Small group programs are available for students who need extra support with numeracy.

Semester 1: Students study Number and Measurement. They investigate the history of our number system and the special properties of prime numbers. They solve problems involving money, negative numbers, fractions, decimals and percentages and make judgements about rounding results to a reasonable estimate. They learn about the metric measurement system, areas and volumes of basic shapes. Students also begin to learn the techniques of mathematical problem solving, including using technology as a tool.

Semester 2: Topics covered are algebra, geometry and statistics. Students learn to write and solve simple equations. They also investigate angles, shapes and transformations, including how they are used in art and design. They complete a statistics project where they use data collection and analysis to answer questions about our class. Students continue to learn and practise the techniques of mathematical problem solving, including using technology as a tool where appropriate.

Junior Mathematics Problem-Solving Extension Program

The focus of the program is exploring maths through problem solving and is based around two international problem solving competitions, the Computational and Algorithmic Thinking Competition and the Mathematics Olympiad. This program is by invitation.

7 Science

Research Methods and Chemistry: Students learn essential laboratory safety rules and investigate how to use specialised equipment correctly. They participate in a series of *Mythbusters*-inspired experiments, testing a series of different myths in order to understand how to safely work in the science laboratory. Students practise how to record and present experimental data in a variety of appropriate formats in their experiment reports. Students also participate in a series of CSI Chemistry activities and learn how to identify substances as pure or mixtures and experiment with a variety of separation techniques. Students use a variety of techniques to classify organisms into their different groups.

Physics, Astronomy and Ecosystems (Biology): Students explain how the relative positions of Earth, the sun and the moon affect phenomena on Earth. They represent and predict the effects of unbalanced forces, including Earth's gravity, on motion. Students predict the effect of human and environmental changes on interactions between organisms. They analyse how the sustainable use of resources depends on the way they are formed and cycle through Earth systems. Students identify questions that could be investigated scientifically and plan fair experimental methods. They identify variables to be changed and measured. Students draw on evidence to support their conclusions and summarised data from different sources.

7 Physical Education

Semester 1: In practical Physical Education classes, students participate in volleyball clinics, learning skills and drills and play minor games, and building volleyball fundamentals. In term two, Basketball skills are developed through clinics and teachers' involvement. In theory classes, students explore how to access safe and reliable health information for young people. Students also learn about the concept of peer pressure and how it can influence the decisions we make.

Semester 2: Students explore and consolidate their development of AFL skills as well as fundamental fitness techniques and minor games. Theory classes cover fitness components and how they affect sporting performance as well as daily life.

7 French

Semester 1: Students learn key questions and expressions used in the classroom. They participate in classroom routines and interactions by following instructions, asking and answering questions, and requesting help or permission. They interact with peers and the teacher to exchange information and opinions, to talk about self, family, friends, and interests, and to express feelings, likes and dislikes. They focus on reading, writing, speaking and listening, with the greatest emphasis on speaking. Students are assessed through the end of

Term 1 tests, incorporating a speaking test, vocabulary test and listening test, and online class work during Term 2.

Semester 2: Students use French for classroom interactions and transactions, for explaining and practising language forms and for developing cultural understanding. They work both collaboratively and independently, exploring different modes and genres of communication, with particular reference to their own current interests. They combine language knowledge and resources to plan, problem-solve, monitor and reflect. They use modelled and rehearsed language in familiar and unfamiliar contexts and increasingly generated original and personal language. They make cross-curricular connections and explore intercultural perspectives and experience.

7 Physical Geography

Students study the basic geographic concepts of Space, Place, Interconnection, Change, Environment, Scale and Sustainability (SPICESS). Understanding of these concepts is developed as they are essential for exercises and projects completed in class alongside the use of a variety of maps to locate local and global features. The importance of water as a resource and its management are introduced through the topic of 'Water in the world'. This unit examines water as a renewable environmental resource and the many uses of water.

7 Ancient History

Students explore the ancient world, a period of time that ranges from the earliest human communities to the end of the ancient period, approximately 6000 BC (BCE) – c.650 AD (CE). They study the discoveries (the remains of the past and what we know) and the mysteries (what we do not know) about this period of history, in a range of societies including China and their choice of Rome, Egypt or Greece. Additionally, students examine what history is and how it is studied.

7 Science Technology Engineering Maths (STEM)

When designing and making the Moisture Indicator, students identify and investigate different forms of energy. They explain how energy transfers and how transformations cause a change in simple systems. Students explored the nature of electricity and how current flows in electronic circuits. They consider sustainable practices and brainstorm a variety of factors that can influence the selection of appropriate materials, components, tools and equipment. Students design and construct a storage solution for their project using 3D modelling and 3D printing technology. They test and evaluate their projects and draw conclusions about engineered systems and product design. Students also research plastics materials, and the way plastic products are manufactured in industry, safety considerations when using plastic products and the detrimental effects of plastic on the environment.

7 Digital Technologies

Through project-based learning, such as 'Decomposing a Problem' and 'Paper Prototyping' tasks, students analyse the properties of networked systems and their suitability and use for the transmission of data types. They acquire, analyse, validate and evaluate various types of data, and learn to appreciate the complexities of storing and transmitting that data in digital systems. Students use structured data to model objects and events that shape the communities they actively engage with. They further develop their understanding of the vital role that data plays in their lives, and how the data and related systems define and are limited by technical, environmental, economic and social constraints.

7 Drama

Students are introduced to the hands-on experience of performing drama for an audience. They refine and extend their understanding and use of role, character, relationships and situations and how to use their voice and movement to develop a character's believability. They learn the importance of memorisation, characterisation, movement, diction, projection and vocal variety, emotion, tempo and rhythm, focal point and focus.

7 Food Technology and Nutrition

Students are introduced to the food technology kitchen, studying safety, hygiene and basic cooking procedures. They consider the importance of healthy eating by exploring and designing a personal Healthy Eating Pyramid. Frequent practical classes enable students to design and produce dishes and to consolidate accuracy and understanding of functioning safely in the kitchen.

7 Civics

Students focus on developing an understanding of the relationship between consumers, producers and businesses. They explore the idea of personal budgeting, consumer wants and needs, the world of work and income, and the types of enterprising behaviour you need to be successful in a business. In this unit students identify the ideas, values and principles that underpin the institutions and processes in Australia's political and legal systems. They explain the diverse nature of Australian society, and identify the importance of shared values in contemporary Australian society.

7 Art

Students undertake small exercises and projects associated with the elements of Art including line, tone, texture, shape, form and colour. Students complete an artwork featuring the use of line, reflecting the style and symbols used by Australian indigenous artists. Students also present a research project on a well known still life or landscape artist. They are encouraged to complete their own pencil sketches demonstrating how to show varieties of tone in order to create a 3D effect.

Year 8 program

Core subjects:

- English
- Encounter
- Mathematics
- Science
- Physical Education
- French or English as an Additional Language
- Engage at Eight - Invictus
- EISM Sport
- Chapel

Semester subjects:

- Geography
- History
- Design & Technology (Wood)
- Drama
- Food Technology
- Art

8 English Girls & Boys

Girls & Boys are gender split for Year 8 English.

Semester 1: Students explore the mechanics of analytical and creative writing through the study of Andy Mulligan's 'Trash' and Li Cunxin's autobiographical novel 'Mao's Last Dancer'. They pay close attention to the themes, issues and ideas present in both texts and they analyse textual evidence to support viewpoints. In addition, students explore the way persuasive texts are constructed. They pay particular attention to argument strategy and intended effect. The unit culminates with the students writing and delivering their own persuasive speeches on the theme of identity.

Semester 2: Students explore the mechanics of analytical and creative writing. They compare the coming-of-age experiences in the novel 'The Boy in the Striped Pyjamas' by John Boyne and 'The Book Thief' by Brian Percival. In the study of these texts a particular focus takes place on the breaking down of physical and mental 'fences' and how this can be applied to real-life situations. Additionally, students are inspired to think creatively as they step into the world of poetry. In their own writing, students explore a range of poetic devices and focus on the themes of identity and conflict. Spelling, grammar and the mechanics of language are further developed by exploring and editing writing tasks.

8 English as an Additional Language

English as an Additional Language (EAL) students follow a pathway of development in learning English that is different from students for whom English is the first language. Students in Years 7-10 are placed in Stage SL, S1, S2, S3 or S4 in the areas of Speaking and Listening, Reading and Writing.

8 Encounter

Semester 2
Focusing on the New Testament, students study three parables. Firstly, 'The Prodigal Son', showing the unconditional love and generous forgiveness of God our Father who welcomes us as his sons and daughters just as we are. Secondly, 'The Good Samaritan' challenges the followers of God to always respond with loving action to others. The third parable of 'The Ten Bridesmaids' reminds students of the imminent event of Jesus' second coming to deliver his spiritually prepared people to eternal life.

Semester 1
Students learn about key characters of the Old Testament and their journeys of faith. Starting with Abraham, Isaac and Jacob, students learn that God still has a purpose and plan for our lives, even when we make mistakes. Students study Joseph's life and how he dealt with multiple challenges, as a way of exploring how they too can grow to develop greater resilience in difficult situations they may face in their own lives. Learning about the Bible patriarchs and Joseph through Bible history give students some tools for dealing with the hard times in their own lives and shows them that they can always rely on God to be with them.
'We also rejoice in our sufferings, because we know that suffering produces perseverance; perseverance, character; and character, hope.' Romans 5:3,4.

8 Science

Biology and Earth Science - Students focus on how living things are composed of cells and use the light microscope to observe cell structures and types. They explore how cell organelles are vital to keeping cells alive and how cells are organised into different body systems. Students are introduced to a variety of body systems in the context of the importance of healthy habits in the maintenance of social, physical and spiritual well-being.

Chemistry and Physics - Students are introduced to the particle model of matter, focusing on the effects energy has on states of matter, particularly in relation to weather. Students explore how energy is transferred and transformed in simple systems. They continue to develop the idea of matter in terms of particles, focusing on identifying chemical and physical reactions.

8 Maths

Maths Support Program
Small group programs are available for students who need extra support with numeracy.

Semester 1: Students study Number and Algebra. They learn to solve problems with negative numbers, fractions, decimals, percentages and some financial applications. Students identify rational and irrational numbers and use power laws with whole numbers. They simplify, expand and factorise algebraic expressions.

Semester 2: Students are introduced to linear graphs, linear equations and ratios. Students gain skills to sketch and interpret linear graphs and find equations. They learn to write and solve simple and complex linear equations. Students also develop a greater range of skills in Measurement, including circumference and capacity. Congruency of triangles and quadrilaterals are introduced to students in the Geometry section of the course. Students use technology as a tool to assist in solving mathematical problems.

Junior Mathematics Problem-Solving Extension Program
The focus of the program is exploring maths through problem solving and is based around two international problem solving competitions, the Computational and Algorithmic Thinking Competition and the Mathematics Olympiad. This program is by invitation.

8 Physical Education

Semester 1: In practical Physical Education classes, students participate in volleyball clinics, learning skills and drills and playing minor games, to build volleyball fundamentals. In Health classes, students learn about the 'Perceptions of Wellbeing in the Community'. They also learn how to identify the factors influencing someone's perception of health.

Semester 2: Students explore and consolidate their development of AFL skills as well as fundamental fitness techniques and minor games. Theory classes give students an opportunity to focus on strategies for staying safe with social media and issues relating to body image.

8 French

Semester 1: Students experience how interaction involves culture as well as language. They focus on reading, writing, speaking and listening, with the greatest emphasis on speaking. They understand and use elements of the French grammatical system, including word order, gender and number variation, the present and compound forms of regular verbs, and some irregular verbs. They recognise and use features of common spoken or written texts, and compare them with features of similar texts in English.

Semester 2: Students focus on reading, writing and speaking and listening, with the greatest emphasis on speaking. Students explore French pronunciation, reading aloud, new vocabulary, introduction to songs in French and the first stage of studying a play in French. Students are assessed through speaking, vocabulary and listening tests. This course lays the foundations for language use and manipulation by establishing a basic vocabulary. Students are led to

understand the role of language as an expression of cultural and personal identity, and as a shaper of perspectives.

8 Invictus - Wellbeing Program

Semester 1: Students complete the Journey and Network modules of the Invictus Wellbeing program. The journey focuses on recognising the importance of planning, preparation, flexibility as well as self-reliance, efficacy and good decision-making skills. Network focuses on recognising the importance of reliable, meaningful, constructive relationships and what it takes to maintain them. It's about empathy. It's about reshaping competitive landscapes to build each other up. It's about knowing how to surround yourself with, as well as be, a positive influence.

Semester 2: The *Mastery* element of the Invictus Wellbeing Program focuses on the outcomes (Skill development, Independence, Resourcefulness and Social Cohesion). These outcomes are achieved by networking with a mentor who can impart a new skill, which can then be developed in an independent manner, requiring resourcefulness. This element seeks to establish the wellbeing benefits of meaningful engagement with skill mastery; these same benefits are reported by employees meaningfully engaged in the workforce. The *Serving* element of the Invictus Wellbeing Program focuses on the outcomes of Service, Teamwork, Resourcefulness and Social Cohesion.

8 Geomorphology and Urban Geography

Students investigate geomorphology through the study of mountain and coastal landscapes, examining processes that shape individual landforms. They explore the values and meanings placed on landforms by different cultures, as well as the hazards associated with the landscapes and their management. Urbanisation and redistribution of the population resulting from migration are examined through Australian and Chinese case studies.

8 History - The Ancient to the Modern World

Students study the formative events from 650 CE to 1750 CE that served to shape the historical world. Focusing on the study of 'The Ancient to the Modern World', as well as 'Medieval Europe and the Black Death', students have the opportunity to develop historical understanding whilst applying concepts such as evidence; continuity and change; cause and effect; perspective and empathy. Students explore how social, economic, religious and political beliefs are often challenged and significantly changed.

8 Design & Technologies (Wood)

Through the study of wood students have the opportunity to design and make a project of their choice. They investigate and select from a range of technologies – materials, systems, components, tools and equipment, and consider the ways characteristics and properties of

technologies can be combined to design and produce sustainable solutions to problems for individuals and the community, taking into consideration society and ethics, and economic,

environmental and social sustainability factors. Students use creativity, innovation and enterprise skills with increasing independence and collaboration. They learn about graphical representation techniques to communicate through sketching and modelling perspective and orthogonal drawings. They develop plans to safely manage design tasks, including responsible use of materials and tools.

8 Drama

Students are introduced to the hands-on experience of writing and performing drama for an audience. They refine and extend their understanding and use of role, character, relationships and situations and how to use their voice and movement to develop a character's believability. They learn the importance of collaboration with a group and the skills of memorisation, characterisation, movement, diction, projection and vocal variety, emotion, tempo and rhythm, focal point and focus.

8 Food Technology and Nutrition

Students consider the Australian Guide to Healthy Eating and investigate the new food trends associated with the food groups. They commence with a design brief, investigate, select, produce and evaluate associated dishes as well as follow recipes to familiarise themselves with food items in each group.

8 Art

Students continue to develop and strengthen the skills learnt in the previous year. They increase their understanding of how to apply the principles of art by undertaking small exercises and projects associated with them. These include balance, contrast, emphasis, movement, repetition, rhythm, scale, space, unity and variety. As they are introduced to artists and artworks, they gain inspiration for their own artworks and demonstrate an understanding of how artworks convey meaning. Students complete activities where they respond to their own and others artworks and analyse them. Students continue to learn about the artistic process and complete a variety of projects in different media; including sculpture, drawing and printmaking.

Year 9 core subjects

Core subjects:

- English
- Encounter
- Mathematics
- Science
- History / EAL
- Challenge - includes elements of English, SPD, History, HPE, Geography
- EISM Sport
- Chapel

9 English

Semester 1: Students focus on reading, understanding and responding to different texts and ideas. Students have opportunities to respond to texts and ideas in both creative and formal ways to demonstrate and further develop their accuracy, skill, vocabulary and concepts. They use the program *Education Perfect* to further their understanding of grammar and punctuation. The set text this semester is 'The Outsiders' by S.E. Hinton.

Semester 2: Students focus on developing their understanding of how writers and speakers persuade audiences by exploring the film 'Lion' and Shakespeare's 'Much Ado About Nothing'. Students demonstrate their understanding of persuasive techniques while they prepare and deliver their oral presentations and engage in discussions and debates. In their exploration of the film 'Lion', they analyse the ways in which directors use film techniques to drive the plot of a film and influence an audience. They are introduced to Shakespearean language and culture in their study of 'Much Ado About Nothing.' Students are given opportunities to respond to both of these texts in creative and analytical ways in order to demonstrate and develop their accuracy, skill, vocabulary and ideas in the areas of writing, reading and comprehension. They continue to use computer programs to complement their study of language.

9 English Additional Language

Semester 1 & 2: English as an Additional Language (EAL) students follow a pathway of development in learning English that is different from students for whom English is the first language. Students in Years 7-10 are placed in Stage SL, S1, S2, S3 or S4 in the areas of Speaking and Listening, Reading and Writing.

9 Encounter

Semester 1: In Encounter (previously named Spirituality and Personal Development), students consider 'The reality of God', exploring whether we can know and trust that God is real and how He can impact lives. In Term 2 they study 'God on Earth', looking at the life of Jesus Christ while

on earth and what impact he had on those around him and today's society and what significance it has for us.

Semester 2: 'The Week of the Cross' unit discusses the build-up to Jesus' crucifixion. Leading from Sunday's entry to Jerusalem through to the trial on Friday and the lessons Jesus taught in-between. This is followed by an exploration of the core biblical theme of Salvation. This unit also explores that God is deeply invested and loves each individual.

9 Maths

Maths Support Program
Small group programs are available for students who need extra support with numeracy.

Semester 1: Students study Pythagoras' Theorem, Trigonometry, Measurement, Algebra and Financial Mathematics. Students calculate areas of shapes and the volume and surface area of prisms and cylinders. They use Pythagoras' Theorem and Trigonometry to find unknown sides and angles of right-angled triangles. Students use the power laws with whole numbers to solve mathematical problems and they simplify, expand and factorise algebraic expressions. Students also learn to solve everyday financial problems including calculating tax, simple interest loans and comparison of communication and resources costs.

Semester 2: Students plot points, find the y-intercept, discuss gradient and learn to plot a linear graph using three different methods. Additionally, students learn how to graph non-linear graphs. Students use tests to reason if shapes are similar or congruent. Students also study data; construct frequency column graphs and analyse spread using the mean, median and mode.

Maths Extension
A personalised extension program is available for students who have the ability, the interest and the work habits to complete it.

9 Science

Biology - Students examine the structure and function of the brain and human nervous system. Students explore how the body maintains homeostasis through case studies such as diabetes and blood glucose levels. These are being presented in the context of the importance of healthy habits in the maintenance of our social, physical and spiritual wellbeing. Students then explore what disease is, how to minimise disease and how the body's immune system works with reference to the Coronavirus pandemic.

Chemistry and Physics
Physics - Students explore the history of the atom and the current model of an atom. This leads to an in-depth study on radioactivity from the decay of nuclei, as well as the uses of radioactivity. Students also study how energy transfer through different mediums can be explained with wave and particle models, with an emphasis on electromagnetic radiation.

Chemistry - Students study chemical interactions and reactions through experimentation focusing on acid-base chemistry, decomposition reactions and combustion reactions. This knowledge is used to predict products in simple equations and correctly construct word equations.

9 History - The Lead Up to WW1

Semester 1: Students study the formative events from 1750 to 1918 that served to shape the modern world. Through discussion, reflection and source analysis, students are immersed in a period of rapid change in which development of technology and ideas radically alter the way people lived, worked and thought. Ideas such as nationalism and imperialism are being explored against a backdrop of global events which revolve around the rapid expansion of European power. Students are given opportunities to develop understanding and focus their inquiry through the use of key historical concepts, which include: evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability.

Semester 2: Students investigate how developments from 1750 to 1918 shaped the world, with a particular focus on how such changes are experienced in Australia. They look at the worldwide movement of people, the formation of Australia as a nation and World War 1. Students refer to key events and the actions of individuals and groups to explain patterns of change and continuity over time. They analyse the causes and effects of events and developments and make judgments about their importance. They explain the motives and actions of people at the time and the significance of these events and developments over the short and long term and different interpretations of the past. When researching, students develop different kinds of questions to frame a historical inquiry. They interpret, process, analyse and organise information from a range of primary and secondary sources and use it as evidence to answer inquiry questions.

9 Challenge Program

Challenge students engage in a variety of experiences for stretching growth and consequence. They establish foundations for decision making based on Biblical values, the sixteen Habits of Mind and the power of community. Students are also empowered to 'dream big', activate their dreams and make an impact at their age. This is being addressed through their involvement in reflective journal writing and volunteering tasks within their own community, producing a public speech, entrepreneurially growing seed money for a charity, improving physical skill and an in-depth book report.
Refer to the Challenge Handbook for more details.

Year 9 Electives

**See also combined Year 9 & 10 Electives listed after the Year 10 Core subjects*

9 Photography - Digital and Film

Students explore ideas and techniques that enable them to utilise digital cameras as a medium for self-expression. They create and respond to their own and others' artworks. They explore the artmaking process as they create an ongoing portfolio of work. Students visit virtual or real-life galleries, Blackburn Lake and Montsalvat to build-up on and apply their understanding of digital photography techniques, as well as discern and respond to the meanings, messages and techniques in others' artworks. This is a semester-long elective subject.

Related VCE Subjects: Art and Media.

9 Art - Painting

Students are introduced to painting as an artform and explore a range of media and techniques involved. They are required to produce paintings of their own, as well as discern and respond to the meanings, messages and techniques in others' artworks. They focus on oil painting, watercolours and digital painting using illustration software. Students keep an ongoing portfolio of work that demonstrates an understanding of the artmaking process.

Related VCE Subjects: Art

9 Digital Media

Semester 1: Students are introduced to ideas and techniques that enable them to utilise online platforms to code and create their own computer games as a form of media expression. They create and respond to their own and others' computer games. They also demonstrate an understanding of the stop motion filming process as they add to an ongoing skill set of media creation, which includes claymation character formation.

Semester 2: Students are given the opportunity to use their media making skills and experiences from Semester 1 to enter several film and media competitions. Choosing from traditional filmmaking, claymation, stop-motion filming, animation or computer game creation, students further their pre-production planning, filming and post-production editing skills to create theme-driven entries.

9 NCC Fit

Students refine a range of specialised knowledge, understanding and skills in relation to their health, safety, wellbeing, and movement competence and confidence. They develop specialised movement skills and understanding in a range of physical activity settings. Students analyse how body control and coordination influence movement composition and performance and learn to transfer movement skills and concepts to a variety of physical activities. They explore the role that games and sports, outdoor recreation, lifelong physical

activities, and rhythmic and expressive movement activities play in shaping cultures and identities. Students reflect on and refine personal and social skills as they participate in a range of physical activities.

Journalism and Images Magazine

Students gain a critical understanding of the role and function of journalism by exploring a range of primary media resources. They develop their skills in reporting, writing, editing and publishing news for print media. They accurately and respectfully report on current issues and events, including school-related events which are published in the student newsletter and and the school magazine, *Images*.

Related VCE Subjects: English and Media

Year 10 core subjects

Core subjects:

- English
- Encounter
- Mathematics
- Science
- History/ EAL
- EISM Sport
- Chapel

10 English

Semester 1: Students explore a broad selection of literature, with a particular focus on narrative and persuasive texts. 'Analysing Argument' and 'Reading and Creating' form the basis of student inquiry. Texts supporting these studies include opinion pieces on relevant cultural issues as well as novels and other shorter texts. An emphasis is placed on furthering comprehension, appreciation and the ability to analyse how texts can be constructed and interpreted. Students develop competence and confidence as they form written and oral responses to textual themes, issues and ideas. The set texts for this semester are 'Lord of the Flies' by William Golding and '12 Angry Men' by Reginald Rose.

Semester 2: Students continue to explore a broad selection of literature in order to comprehend, appreciate, analyse as well as compare the ways in which texts about similar themes are constructed and interpreted. Students develop confidence and competence in producing written and oral work in response to a range of both fiction and non-fiction texts, including film. They prepare and present a speech on a contemporary issue and respond analytically to opinion pieces on relevant cultural issues. The set texts for this semester are the film 'Dead Poets Society' (from director Peter Weir) and a selection of poetry.

10 English as an Additional Language

Semester 1 & 2: English as an Additional Language (EAL) students follow a pathway of development in learning English that is different from students for whom English is the first language. Students in Years 7-10 are placed in Stage SL, S1, S2, S3 or S4 in the areas of Speaking and Listening, Reading and Writing.

10 Encounter

Semester 1: 'God is Trustworthy' focuses on how we can know that God is real, archaeological evidence supporting the biblical account of history and how we can continue establishing a personal relationship with Christ. The story of Hosea is explored and how it is a real-life metaphor of God's love for his people in the Bible.

Semester 2: Students explore the story of David and how God empowered him to become a 'man after His own heart'. This then leads into the unit' Jesus: Message from His heart' and how accepting Jesus will forever change our lives. Students then complete a unit on Sex and Relationships and evaluate how sex and relationships are portrayed in the media. They look at how the media affects body image and the sexualisation of culture.

10 Maths

Maths Support Program
Small group programs are available for students who need extra support with numeracy.

10 Maths
Semester 1: Students study Pythagoras' Theorem, Trigonometry, Measurement and Algebra. Students calculate areas of shapes and the volume and surface area of prisms and cylinders. They used Pythagoras' Theorem and Trigonometry to find unknown sides and angles of right-angled triangles. Students use the power laws and basic algebra. They apply mathematics to real-life problems and use technology, particularly calculators and spreadsheets, to help find solutions.

Semester 2: Applying mathematics to real-world contexts is the emphasis this semester. Using mathematical modelling to make predictions and solve problems is investigated with a straight line, quadratic and exponential functions. Statistical methods are introduced as a method for understanding the world around us while considering how data is collected and whether it is trustworthy. The many financial applications of mathematics, including simple and compound interest, are explored. Appropriate technology, particularly spreadsheets are used to help with data analysis and problem-solving.

10 Maths Advanced
Semester 1: Students study Measurement, Trigonometry (including Advanced Trigonometry) and Algebra. Students calculate areas of shapes and the volume and surface area of prisms and cylinders and study density. They learnt to solve problems with right-angled shapes including 3-dimensional shapes. Students use irrational numbers (surds) in practical problems, revise the laws of indices and apply them to the laws of logarithms. They begin to make use of CAS technology for modelling and solving equations.

Semester 2: Students study statistics; using various graphs to display univariate and bivariate data and measures to analyse data. They explore finance, revisiting the use of simple and investigating compound interest. Students identify, solve and sketch both linear and quadratic equations. They also identify and sketch other nonlinear equations. Students are introduced to the unit circle and its importance to trigonometric functions. They begin to make use of CAS technology for graphing, modelling and solving equations.

Maths Extension

A personalised extension program is available for students who have the ability, the interest and the work habits to complete it.

10 Science

Biology: Students study genetics, the structure and function of DNA, genes and patterns of mutation and inheritance. They investigate the impact of mutations on human health and some of the social and ethical implications associated with new applications of biotechnology. Natural selection and evolution are explored through an examination of biological, geographical and physical evidence of this theory. Adaptation and survival of species are also looked at. Similarities and differences between evolution, biblical creation and Indigenous Australian creation stories are researched and discussed.

Physics and Chemistry: Physics introduces students to Astronomy, including an exploration of past and current models on the origin of the universe. They also study Motion, focusing on Newtonian Physics as a way to predict the motion of objects when unbalanced forces are applied. Chemistry extends the students' knowledge of chemical interactions and reactions through experimentation, with a detailed study of the bonding of atoms and the representation of a chemical reaction.

10 History

Semester 1
Students study the formative events from 1750 to 1918 that served to shape the modern world. Through discussion, reflection and source analysis, students are immersed in a period of rapid change in which development of technology and ideas radically altered the way people lived, worked and thought. Ideas such as nationalism and imperialism are explored against a backdrop of global events which revolve around the rapid expansion of European power. Students have opportunities to develop understanding and focus their inquiry through the use of key historical concepts, which include: evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability.

Semester 2
Students investigate how developments from 1750 to 1918 shaped the world, with particular focus on how such changes were experienced in Australia. They look at the worldwide movement of people, the formation of Australia as a nation and the consequences of World War II. Students refer to key events and the actions of individuals and groups to explain patterns of change and continuity over time. They analyse the causes and effects of events and developments and make judgments about their importance. They explain the motives and

actions of people at the time and the significance of these events and developments over the short and long term and different interpretations of the past. When researching, students develop different kinds of questions to frame a historical inquiry. They interpret, process,

analyse and organise information from a range of primary and secondary sources and use it as evidence to answer inquiry questions.

Year 9 and 10 Elective Program

Block 1 Semester 1

- Art - Ceramics and Abstract Painting
- Performing Arts
- Creative Writing
- Food Technology
- Mechatronics

Block 1 Semester 2

- Art - Relief Printmaking and Logo Design
- Performing Arts
- Literature
- Food Technology
- Mechatronics

Block 2 Semester 1

- 'Public Speaking / Debating
- Economics
- Psychology
- Entrepreneurial Studies
- French
- LOTE - for VCE

Block 2 Semester 2

- Business Management
- Psychology
- Astronomy
- French
- LOTE - for VCE

Block 3 Year 9

- Digital Photography
- Digital Media
- Journalism & Images Magazine
- Watercolour and Oil painting
- NCC Fit

Block 3 Year 10

VCE Extension program 2021

- Art Units 1 & 2
- Systems Engineering Units 1 & 2
- Legal Studies Units 1 & 2
- Accounting Units 1&2

At NCC we believe in preparing students for future careers and providing a sound foundation for entry into the VCE program. As students move into the middle years of secondary education, they are given the opportunity to undertake electives that cover a range of curriculum areas such as the arts and technologies, English, STEM, and the humanities. Subjects generally run for a semester. Electives are separated into three blocks for each semester, and these may vary from year to year depending on student choice. Students are encouraged to choose subjects that will lead to a future VCE study that they are interested in or to try a broad range of subjects if they are still unsure of their future career options.

Art - Ceramics and Abstract Painting

Students are introduced to sculpture and abstract art as art forms and explore a range of media and techniques involved. They produce 3-dimensional works of their own, as well as discern and respond to the meanings, messages and techniques in others' artworks. Students also learn that art is not only found in the physical realm but the digital, as they gain an understanding of how to apply composition techniques and the elements and principles of art to a digital format in the field of graphic design. Students focus on a variety of independent projects that enable them to develop a range of skills in these mediums. They keep an ongoing portfolio of work that demonstrates an understanding of the artmaking process. This is a semester-long elective subject.

Related VCE Subjects: Art and Studio Art

Art - Relief Printmaking and Logo Design

Students are introduced to ideas and techniques that enable them to utilise linoleum-block printmaking as a means for self-expression. They consider a range of significant artists and artworks. Completion of independent research projects serves to inspire students and also assist them in making informed responses to various artworks. Students also learn that art is not only found in the physical realm but the digital, as they gain an understanding of how to apply composition techniques and the elements and principles of art to a digital format in the field of graphic design. Students focus on a variety of independent projects that enable them to develop a range of skills in these mediums. They keep an ongoing portfolio of work that demonstrates an understanding of the artmaking process. This is a semester-long elective subject.

Related VCE Subjects: Art

Art - Watercolour and Oil Painting

Students are introduced to painting as an art form and explore a range of media and techniques involved. They produce paintings of their own, as well as discern and respond to the meanings, messages and techniques in others' artworks. Students focus on oil painting,

watercolours and digital painting using illustration software. Students keep an ongoing portfolio of work that demonstrates an understanding of the artmaking process. This is a semester-long elective subject.

Related VCE Subjects: Art

Astronomy

Students explore the universe, understanding what each of the heavenly bodies are and how to identify them. Students focus then on stars and explore the different sizes, brightness and how far away they are. Finding star constellations in the night sky and on the celestial sphere is part of the discovery process to then research one item in the night sky. The final piece in the puzzle involves students making a colour image taken from black and white images from a live radio telescope. Overarching this course students see God's hand in designing the universe and the laws of nature.

Business Management - Basic Business Practice and the Workplace

Students study the continually changing work environment and how it creates new career paths and demands enterprising skills in the workplace. The roles and responsibilities of employees and employers are also considered, particularly in relation to discrimination, bullying and dismissal in the workplace. Students also investigate how businesses endeavour to gain a competitive advantage in the market and the importance that innovation plays in this process.

Related VCE Subjects: Business Management

Creative Writing

How do words come to life? How can a piece of writing move someone to tears? In this creative writing class, students learn the power of words. Students are exposed to a wide variety of different genres of writing. They examine the characteristics of good (and poor) writing. They develop their skills in the art of writing as they learn to experiment creatively with the written word. Students are encouraged to hone their writing skills by developing a more sophisticated vocabulary and style. Learning to write creatively is an excellent way to express yourself, take writing risks and develop ideas. This is a semester-long elective subject.

Related VCE Subjects: English

Digital Media - Media Making Skills

Students are introduced to ideas and techniques that enable them to create pieces of media expression. They develop skills in pre-production, filming and post-production editing to create theme-driven pieces of media including live films, claymation, stop motion, animation and computer game coding. Students use these skills to enter several film and media competitions.

Economics - An introduction to Basic Economics

The concepts of needs and wants, economic resources and the circular flow of money are covered, in order to better understand the economic questions of how, what and for whom to produce. Demand and supply curves are constructed to depict market forces. Students study a number of varying economic systems and their characteristics, illustrating how different societies endeavour to organise the production and distribution of goods and services. Measuring Australia's economic performance with GDP and CPI figures, inflation rates and unemployment levels is another area of study that the students explore. The investigation of material and non-material living standards that countries experience, along with specific factors that affect living standards, is also covered.

Related VCE Subjects: Economics

Entrepreneurial Studies

Students participate in an immersive entrepreneurship program as part of the $20 Boss nationwide challenge to develop enterprise and entrepreneurial skills to prepare for the future of work. Students identify a problem in the community that is addressed by the creation of a social enterprise and the positive impact it is seeking to have in their local community. They design, prototype and test their innovative product or service idea. Students are provided with $20 seed money to develop, create and manage a social enterprise with profits going towards charity. Students develop and implement an understanding of transferable skills to assist in managing diverse challenges in both work and life settings.

Food Technology - Moving with the times

Food plays an important role in everyone's life and the understanding of what new foods are out there can make a real difference in the way we see food.. This unit investigates the significance and reasons for food trends, ways to prepare foods for small and large scale catering occasions and what to consider when planning food for special events and everyday use. There is a focus on the importance of food presentation and display. Students learn how to follow a workflow plan and use correct food-handling skills to organise and prepare foods for a variety of entertainment events. This is a semester-long elective subject.

Related VCE Subjects: Food Studies

Financial Management - Earning, Spending and Saving

This subject runs every 2 years and will not be on the 2022 elective list.
Students are introduced to key concepts in the basics of personal financial management and analyse different strategies that may be used such as how to manage financial risks and rewards and how to construct a budget. They examine ways to earn income, save, invest and what it means to be an ethically and socially responsible consumer and contributor in a modern world. This is a semester-long elective subject.

Related VCE Subjects: Accounting

Geography - Connecting People and Places

This subject runs as a 2 year curriculum and is offered to students when setting up the elective program. It has not been selected by students to run in 2022.

Year 1

Students explore 'Biomes and food security' by investigating the biomes of the world, their alteration and significance as a source of food and fibre, and the environmental challenges of and constraints on expanding food production in the future. In the second part of the semester, students examine the interconnections between people and places through the products people buy and the effects of their production on the places that make them. Students examine the ways that transport and information and communication technologies have made it possible for an increasing range of services to be provided internationally, and for people in isolated rural areas to connect to information, services and people in other places.

Year 2

Students investigate a specific type of environment and environmental change in Australia and one other country. They apply human-environment systems thinking to understand the causes and consequences of the change and geographical concepts and methods to evaluate and select strategies to manage the change. In the second part of the semester, students examine the different concepts and measures of human wellbeing, and the causes of global differences in these measures between countries. Students explore spatial differences in wellbeing within and between countries and evaluate the differences from a variety of perspectives. They explore programs designed to reduce the gap between differences in wellbeing.

Related VCE Subjects: Geography and Health & Human Development Unit 4

Literature - Brilliant Books and Fabulous Films

The study of literature extends students' ability to read and creatively explore a range of literary texts. Analysis and production of texts in genres which include spoken word, novellas and poetry support a rich understanding of how themes are developed throughout literary texts. Students develop their communicative skills as they discuss and explain their understanding and ideas both orally and in writing. They improve their analytical and creative writing skills as

they respond to the literature in written tasks. Set texts for 2021 are 'To Kill a Mockingbird' by Lee Harper, 'The Importance of Being Earnest' by Oscar Wilde and Shakespeare's Romeo and Juliet. This is a semester-long elective subject.

Related VCE Subjects: English and Literature

LOTE - French

This subject is offered to students who are interested in continuing after completing Year 8 French. It is offered to students when setting up the elective program. It has been selected by students to run in 2022.

Year 1
Students explore French pronunciation and reading. They discover new vocabulary and are introduced to the past and future tenses of French verbs. Students begin the first stage of basic discussions on broad topics. Assessments include a mid-year test, a speaking test, vocabulary and listening tests. This course prepares students for an intermediate level of language use and establishes a basic conjugation.

Year 2
Students explore the dynamic nature of the relationship between language, culture and communication and how it impacts on attitudes and beliefs. They use written and spoken French to socialise with peers, teachers, and other French speakers in local contexts and online environments. They use the passé composé tense of regular verbs with avoir and être, noticing that the participe passé form of verbs with être involves gender and number agreement.

Related VCE Subjects: VCE French

LOTE - (through Victorian School of Languages) for VCE

This elective block is for students who speak and write a language other than English. In enrolling through the Victorian School of Languages, students will be able to build upon the written, listening and speaking skills required for success in VCE. This is a year-long elective subject.

Related VCE Subjects: VCE Languages

Mechatronics - Mechanical and Electronics Technology

This elective is for those who enjoy hands-on learning about engineering systems using skills and processes for metal, plastics and electronics, and applications such as 3D modelling and 3D printing. Students combine the analytical skills of science, the lateral thinking of engineering, the logic of mathematics and the ever-evolving technologies to solve real-life situations. Through the construction of selected projects such as the Smart Phone Amplifier and 'The Battlebot' projects, they develop critical and creative thinking, problem-solving and

digital technologies skills using an interdisciplinary and applied approach. Students test and evaluate their projects and draw conclusions about sustainability, engineered systems and product design. It is offered as a 1 or 2 semester course in Years 9 and 10.

Related VCE Subjects: Systems Engineering and Physics

Nutrition for Life

This subject has not been selected by students to run in 2022.

Students are introduced to a variety of international foods and cuisines studying their characteristic flavours and ingredients. They modify different basic dishes to reflect the unique flavours associated with a variety of countries. Students create a virtual food tour of the world where blogs are written and characteristic recipes shared. A magazine article on a selected celebrity chef is created and a week-long family menu planner produced to reflect multicultural meals, following healthy eating habits and nutritional guidelines. This is a semester-long elective subject.

Related VCE Subjects: Food Studies and Health & Human Development

Performing Arts - Drama and/or Music

Drama & Music

Semester 1: Students begin by exploring the importance of and techniques for breath control and voice projection. In teams they compose and perform an original bucket drumming piece, building upon bucket drumming experience in lower year levels. Students begin by becoming comfortable with developing characters as three-dimensional and true to life. They are required to backfill their character's story to develop their connection to enhance their performance. They then write and perform dramatic scripts to perform for an audience. They refine and extend their understanding and use of role, character, relationships and situations and how to use their voice and movement to develop a character's believability.

Semester 2: Semester 2 begins with a focus on costumes, makeup and scene design and the ways in which these enhance a performance. Students then incorporate these new aspects into their dramatic scripts that were written in Semester 1. The final performance is compared to Semester 1's performance, and students reflect on the differences. They continue to learn the importance of collaboration with a group and the skills of memorisation, characterisation, movement, diction, projection and vocal variety, emotion, tempo and rhythm, focal point and focus.

Psychology

Students begin by learning about the profession of Psychology, whilst debunking any myths and misconceptions held about human behaviour. Students learn about the function and anatomy of the human brain, including its internal structures. The nature of brain injuries and

their causes is also discussed. Following this, students learn about parts of the human experience which includes healthy living, dreaming, attraction, emotions and body language. The details of Forensic Psychology is discussed including the science behind lying and the fallibility of eye-witness testimonies. Lastly students explore Sport Psychology and its role in the sport community.

Public Speaking and Debating

Learning in Public Speaking and Debating builds on concepts, skills and processes developed in earlier years, particularly in English class. Teachers revisit and strengthen these as needed. Students communicate with peers, teachers, individuals and groups in a range of face-to-face and online/virtual environments. They engage with a variety of activities and speeches for enjoyment. They isten to, read, view, interpret, critique and perform a range of spoken and multimodal texts.

Students focus on what public speaking and debating involves and the ways in which it is used in personal and professional spheres. This unit also aims to inspire students to consider new ideas and view the world in a multifaceted way. Students are given the opportunity to improve both their written and verbal communication skills as they are exposed to skillfully written and delivered speeches and debates.

VCE Program

The VCE program is tailored to each individual Year 10 class to reflect the interests and strengths of that specific cohort of students.

After career testing and course advice, Year 10 students express their interest, selecting from a full list of all VCE subjects. This forms the shortlist which informs the VCE program to be offered to that specific class.

VCE subject selection is completed by students in consultation with parents and Year 10 teachers, who make sure a student's future choices are maximised and suited to their ability and interests.

Subjects offered at NCC include:

English - Compulsory
Texts and Traditions - Compulsory at NCC
Maths
General / Further Maths
Maths Methods
Biology
Physics
Chemistry
Psychology
Systems Engineering
HHD
History
Art
Accounting
Business Management
Physical Education
Food Studies
Legal Studies

Subjects currently supported by NCC,

French (VSL)
Global Politics (VSV)
Animal Studies (VET - Mullum Cluster)

VET courses - NCC belongs to the Mullum VET Cluster and students are able to complete a VET subject that contributes to their VCE program. Refer to the Mullum VET Cluster website.

Useful resources:

- Go to VCAA Study Designs for detailed curriculum documents for all VCE subjects.
- To check for University courses, use VTAC Course Search.
- To check for tertiary prerequisites, use the VTAC prerequisite and course explorer.
- For languages offered by the Victorian School of Languages, go to the VSL website.

English

Reading and creating texts
Analysing and presenting argument

Unit 1
Students focus on the reading of a selection of texts, particularly narrative and persuasive texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students develop competence and confidence in creating written work whilst exploring textual themes, issues and ideas. Students explore reading and creating, analysing and presenting arguments. They study the themes, issues and ideas within the text' 'Frankenstein' by Mary Shelley and Peter Skrzynecki's poetry.

Unit 2
Students focus on the reading of a selection of narrative and persuasive texts in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students develop competence and confidence in creating written and oral work whilst exploring textual themes, issues and ideas. The course involves the exploration and interrogation of two study areas: Reading and Comparing and Analysing and Presenting an Argument. Set texts for this unit of study are 'Medea' by Euripides and the film 'Invictus,' directed by Clint Eastwood.

Unit 3
Students analyse how selected texts construct meaning, convey ideas and values, and can be interpreted in different ways. They analyse the use of language in both fiction and non-fiction texts and study how authors use literary devices to explore themes and ideas and present their own world views and values. Students respond both analytically and creatively to a range of texts. They also respond to a variety of media texts.

Unit 4
In Unit 4 students *compare* how two selected texts construct meaning, convey ideas and values, and can be interpreted. They analyse both texts and compare how each author or film director uses literary devices to explore themes and ideas. Students construct essays that compare both texts. In 2022 students study the texts, 'Ransom' by David Malouf and the film text 'The Queen' directed' by Stephen Frears. Students so present a speech on a current Australian issue, thereby developing confidence and valuable skills in public speaking.

Compulsory for all VCE students. Must be in the student's top 4 subjects when calculating the ATAR.

Texts and Traditions

Unit 1 - Texts in traditions

- Exploring literary forms
- The formation and exegesis of text
- Later uses and interpretations of sacred text

Students examine the place of texts and their literary forms within the Christian tradition and how their meaning for the earlier and continuing tradition are found. Students approach the Bible as an inspired literary masterpiece that forms the basis of an in-depth study of the Biblical book of Ruth and an introduction to either the Biblical book of Hosea or Micah. Through an exploration of the historical and cultural background to these texts, the messages of God's redemption and enduring love are highlighted and foundational skills for next year are familiarised. Students explore the literary forms and techniques of the Bible, learn how to write an exegesis, and explore the way later Christianity portrays original stories from the Bible through Art.

Unit 2 - Texts in society

- Sacred texts in the past
- Sacred texts today
- Comparing religious traditions

Students focus on the relationship between Christianity and society. Through a study of the Biblical books of Amos and Philemon, the importance of the themes of love and justice in the Bible are highlighted. The way the Bible inspires and guides Christians to relate to society today is also explored. To encourage respect and tolerance, as well as acknowledging differences, a comparative study of Islam and Christianity is undertaken, with various current social issues explored.

Unit 3 - Texts and the early tradition

- The background of the tradition
- Thematic and literary aspects of the set texts
- Interpreting texts

Texts and Traditions involves an in-depth study of the Gospel of Luke, highlighting the message of Jesus' profound love. Students explore the historical and cultural setting, the background to the writing of the book and an in-depth analysis of select passages using exegetical methods. They gain insight into the themes and messages of Luke's Gospel and into its meaning and significance within its historical context, setting a foundation for the end of year examination.

Unit 4 - Texts and their teachings

- Interpreting texts
- Religious ideas, beliefs and themes

Students continue to apply exegetical methods to the passages for special study that begins in Unit 3, but to a greater depth. Some of the religious ideas, beliefs and themes contained in the Bible have been reinterpreted at different times by Christianity, so students investigate a significant religious idea, belief or theme arising out of the passages for special study. Students develop an understanding of the particular idea, issue or theme in its original social, cultural, religious and historical contexts. They also examine the way this text is interpreted by Christianity at a later time in history as well as giving consideration to the impact on the tradition of these interpretations.

Compulsory at NCC. This subject ties in with the school's Christian curriculum. It is a VCAA subject that contributes towards VCE. It also significantly builds the student's analytical and writing skills, which is a benefit to most other subjects, including English.

General Mathematics

- Algebra and structure
- Arithmetic and number
- Discrete mathematics
- Geometry, measurement and trigonometry
- Graphs of linear and non-linear relations
- Statistics

Unit 1

Students focus on Computational Arithmetic, Shape and Measurement, Trigonometry, Financial Arithmetic and Recursion. They define and explain key terms and concepts and solve routine application problems. Students apply, analyse and discuss mathematical processes and applications. They select and appropriately use technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling, or investigative techniques or approaches.

Unit 2

Students focus on Matrices, Univariate Data Distributions, Linear Equations and Data Distribution & Analysis. They define and explain key terms and concepts and solve routine application problems. Students apply, analyse and discuss mathematical processes and applications. They select and appropriately use technology to develop mathematical ideas, produce results and carry out the analysis in situations requiring problem-solving, modelling, or investigative techniques or approaches.

This subject is called Further Mathematics in Units 3 & 4.

Further Mathematics

Unit 3

Students focus on the core areas of 'Data Analysis' and 'Recursion and Financial Modelling'. They define and explain key terms and concepts and use this knowledge to apply related mathematical procedures to solve routine application problems. Students apply mathematical processes and analyse and discuss these applications of mathematics. Students select and appropriately use technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling, or investigative techniques or approaches.

Unit 4

Students focus on the application area of 'Matrices' and 'Geometry and Measurement'. They define and explain key terms and concepts and use this knowledge to apply related mathematical procedures to solve routine application problems. Students apply mathematical processes and analyse and discuss these applications of mathematics. Students select and appropriately use technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling, or investigative techniques or approaches.

Career or tertiary links: Further Maths (or Maths Methods) is a prerequisite for some university courses, such as Accounting, Business, Commerce, Data Science, Marketing, IT etc. It also offers adjustment points towards applications for some tertiary courses.

This subject is called General Mathematics in Units 1 & 2.

Mathematical Methods

Unit 1

Students explore how mathematics can be used to create models of many real-life situations and how these models can provide answers for real-life problems and questions. Students study many types of functions from an algebraic and a graphical viewpoint. They also begin to understand how technology is used for creating models by learning to use a CAS calculator.

Unit 2

Through the study of the topics Trigonometry, Calculus and Probability, students discover how mathematics is used to create models of many real-life situations and how these models can provide answers to real-life problems and questions. Students use correct mathematical notation, correct vocabulary and demonstrate the ability to use technology effectively as a tool for both understanding and solving problems.

Unit 3

Students consolidate and advance their work from Year 11. They study Functions of many types using both an algebraic and a graphical approach. The basics of Calculus are also studied.

Outcomes include being able to analyse and solve problems in a non-routine context and to discuss the solutions. Technology is also used efficiently and appropriately as a tool for problem-solving.

Unit 4

Topics covered are the Integral Calculus and Probability including the Binomial and Normal distributions. Students are required to define and explain key concepts and apply them to a range of routine and non-routine contexts. These applications are being analysed and discussed in terms of the context. Appropriate technology, chosen to develop mathematical ideas, produce results and carry out analysis, is used in situations requiring problem-solving, modelling, or investigative techniques or approaches.

Career or tertiary links: This (or Further Maths) is a prerequisite for some university courses. It is particularly important for courses such as Engineering, Coding/ Programming, Science, Biomedical Science. Also offers adjustment points towards applications for some tertiary courses.

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, and the requirements for sustaining cellular processes. Students focus on cell growth, replacement and death and the role of stem cells in differentiations, 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 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. Students analyse the advantages and disadvantages of asexual and sexual reproductive strategies, including the use of reproductive cloning technologies. They study structural, physiological and behavioural adaptations that enhance an organism's survival. Students explore physiological and behavioural adaptations that enhance an organism's survival. Students explore interdependencies between species, focusing on how keystone species and top predators structure and maintain the distribution, density and size of a population. They also consider the contributions of Aboriginal and Torres Strait Islander knowledge and perspectives in understanding the survival of organisms in Australian ecosystems.

Unit 3 - How do cells maintain life?

Students explore the relationship between nucleic acids and proteins as key molecules in cellular processes. They 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. The application of ethical understanding in VCE Biology involves the consideration of approaches to bioethics and ethical concepts.

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. They 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 examine the evidence for structural trends in the human fossil record, recognising that interpretations can be contested, refined or replaced when challenged by new evidence. 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 a bioethical issue.

Career or tertiary links: This is a prerequisite for some university courses. It is particularly important for courses such as Biomedical, Science, some Engineering, Nursing and Health related courses. Also offers adjustment points towards applications for some tertiary courses.

Chemistry

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

Students investigate the chemical properties of materials from metals and salts to polymers and nanomaterials. They explore atomic structures and properties of elements and explain their relationships in terms of structure and bonding forces within and between atoms and molecules. They are introduced to the mole concept and its applications in determining relative masses of elements and the composition of substances. Students use chemistry terminology to represent, explain and discuss observations and data from experiments.

Unit 2 - What makes water such a unique chemical?

Students focus on how substances interact with water and how substances in water are measured and analysed. Students become familiar with the structure of water, its properties and solubility. The students also look at a variety of reactions, including acid-base and redox reactions, and their related chemical equations. Analysing water involves understanding how to sample and use different instruments to do the analysis. Hence, the students are involved in going to Blackburn Lake to do water sampling with the assistance of Water Watch volunteers under the guidance of Parks Wide Education. Students also perform in the lab titrations and calorimetry experiments.

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

Students compare and evaluate different chemical energy resources, including fossil fuels, biofuels, galvanic cells and fuel cells. They explore the combustion of fuels, including the energy transformations involved, the use of stoichiometry to calculate the amounts of reactants and products involved in the reactions, and calculations of the amounts of energy released and their representations. The electrochemical series is used to predict and write half and overall redox equations and apply Faraday's laws to calculate quantities in electrolytic reactions. Analysis of a manufacturing process is completed, including discussing factors that influence the rate and the extent of the reaction. Additionally, Le Chatelier's principle is used to predict and explain the conditions that improve the efficiency and percentage yield of the chemical process. The importance of the language and conventions of chemistry including symbols, units, chemical formulas and equations are stressed.

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

Students examine the diversity of organic compounds by investigating the structural features, typical chemical reactions, uses and IUPAC naming conventions. They are introduced to instrument analysis, including mass spectroscopy, chromatography, NMR and IR, from which they process the data to determine the structure of organic compounds and perform volumetric analysis. Students predict the products of reactions and design pathways to produce particular compounds from starting materials. They investigate key food molecules and explore the role of enzymes in the metabolism of food. Calorimetry is used to investigate the energy released in the combustion of foods. A student-designed practical investigation is conducted and the data is analysed to draw conclusions relating to their posed question.

Career or tertiary links: This is a prerequisite for some university courses. A student with Chemistry and Maths Methods can apply for every university subject. It is particularly important for courses such as Biomedical, Science, some Engineering and Health related courses. It also offers adjustment points towards applications for some tertiary courses.

Psychology

Unit 1 - How are behaviour and mental processes shaped?

Students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. Students explore brain plasticity and the

influence that brain damage may have on a person's psychological functioning. They consider the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary studies have made to an understanding of the human brain and its functions, and to the development of different psychological models and theories used to predict and explain the development of thoughts, feelings and behaviours.

Unit 2 - How do external factors influence behaviour and mental processes?
Students focus on the influence of external factors on behaviour and mental processes. They study the visual and gustatory systems to see how human perception of stimuli is influenced by a variety of biological, psychological and social factors. Students also examine social cognition and consider the biological, psychological and social factors that shape the behaviour of individuals and groups.

Unit 3 - How does experience affect behaviour and mental processes?
Students examine the macro-level and micro-level functioning of the human nervous system to explain how it enables a person to interact with the world around them. They explore how stress may affect a person's psychological functioning and consider the causes and appropriate management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, the development of new capacities and changed behaviours. They investigate the limitations and fallibility of memory and strategies for how it can be improved. Students also consider the way in which current understanding of the nervous system, learning and memory have been shaped by the contributions of classical and contemporary research.

Unit 4 - How is wellbeing developed and maintained?
Students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and application of a biopsychosocial approach, as a scientific model, to analyse mental health and disorder. They examine the contribution that classical and contemporary research has made to our shared understanding of these topics. Students also apply their understanding as they conduct an analysis and evaluation of a practical investigation related to mental processes and psychological functioning.

Career or tertiary links: This is not a prerequisite for university courses. It offers adjustment points towards applications for some tertiary courses. This is a life-relevant course, but also forms a very good foundation for tertiary courses such as Psychology/ Science, Teaching, Nursing, Biomedical/Health Science.

Systems Engineering

VCE Systems Engineering involves the design, production, operation, evaluation and iteration of integrated systems, which mediate and control many aspects of human experience. Integral

to VCE Systems Engineering is the identification and quantification of systems goals, the generation of system designs, trial and error, justified design trade-offs, selection and implementation of the most appropriate design. Students test and verify that the system is well-built and integrated. They evaluate how well the completed system meets the intended goals and reflect on the systems engineering process to create a satisfactory design outcome.

Unit 1 - Mechanical Systems

In this unit, students focus on engineering fundamentals as the basis of understanding concepts, principles and components that operate in mechanical systems. The term 'mechanical systems' includes systems that utilise all forms of mechanical components and their linkages. Students are introduced to mechanical engineering principles including mechanical subsystems and devices, their motions, elementary applied physics, and related mathematical calculations that can be applied to define and explain the physical characteristics of these systems.

Unit 2 - Electrotechnological Systems

In this unit, students study fundamental electrotechnological engineering principles. The term 'electrotechnological' encompasses systems that include electrical/electronic circuitry including microelectronic circuitry. Through the application of the systems engineering process, students create operational electrotechnological systems, which may also include mechanical components or electro-mechanical subsystems.

Unit 3 - Integrated and Controlled Systems

In this unit students study engineering principles used to explain physical properties of integrated systems and how they work. Students design and plan an operational, mechanical and electrotechnological integrated and controlled system. They learn about the technologies used to harness energy sources to provide power for engineered systems. Students learn about sources and types of energy that enable engineered technological systems to function. Comparisons are made between the use of renewable and non-renewable energy sources and their impacts. Students develop their understanding of technological systems developed to capture and store renewable energy and technological developments to improve the credentials of non-renewables.

Unit 4 - Systems Control

In this unit students complete the creation of the mechanical and electrotechnological integrated and controlled system they researched, designed, planned and commenced production of in Unit 3. Students investigate new and emerging technologies, consider reasons for their development and analyse their impacts. They expand their knowledge of emerging developments and innovations through their investigation and analysis of a range of engineered systems. Students analyse a specific emerging innovation, including its impacts.

Art

Unit 1 - Artworks, Experience and Meaning

Students focus on artworks as objects, examining how art elements, art principles, materials and techniques and artistic processes communicate meaning. Students analyse and interpret a variety of artworks using structural and personal frameworks. They also complete a major folio which addresses the theme 'a sense of my world.' This requires students to work through the art process of exploring, experimenting, developing, refining and resolving a visual expression of their ideas. They develop their own visual language and record their thoughts through annotations based on structural and personal frameworks.

Unit 2 - Artworks and Contemporary Culture

Students continue to link their growing theoretical understanding of art to their own practice. They analyse and interpret a variety of artworks using cultural and contemporary frameworks. They also document their own progression through the art process in a folio and major artwork which address a central theme. Students continue to develop their own visual language and the skill of recording their thoughts through annotations based on the analytical frameworks as they move through the process of exploration, experimentation, development, refinement and resolution of ideas.

Unit 3 - Artworks, Ideas and Values

Students study selected artists who have produced works before 1990 and since 1990. Students use the language and content of the Analytical Frameworks in their reflection of the structural, personal, cultural and contemporary aspects of their selected artists and their own developing artworks. This enables students to appreciate how an artwork may contain different aspects and layers of meaning and to acknowledge the validity of diverse interpretations. Students link their growing theoretical understanding of art to their own practice. They document the application of imagination and creativity in a folio to develop their ideas through the art process and visual language. Their art making is supported through investigation, exploration and application of a variety of materials, techniques and processes.

Unit 4 - Artworks, Ideas and Viewpoints

Students study artworks and develop and expand upon personal points of view. They support their point of view and informed opinions about art ideas and issues with evidence. They build their learning and conceptual understanding around the discussion of broad themes, ideas and issues related to the role of art in society and consider how ideas and issues are communicated through artworks. Students research and choose an art idea and issue to explore, selecting an artwork and related commentaries to support their analysis. Students also focus on the development of a body of work using the art process that demonstrates creativity and imagination, the evolution and resolution of ideas and the realisation of appropriate concepts, knowledge and skills.

Career or tertiary links: This is often a passion subject for students, where they can develop their personal style and skills. Very beneficial for Design, Media, Communication type courses. Also helpful for courses that require a folio as part of the application. While the VCE Art folio may not meet the criteria for other university course applications, the skills gained will enable the student to prepare an appropriate application-specific folio.

Physics

Unit 1 - What ideas explain the physical world?

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

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

Students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments. Students make direct observations of physics phenomena and examine the ways in which phenomena that may not be directly observable can be explored through indirect observations. Students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary. Students choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science. The option enables students to pursue an area of interest by investigating a selected question. Students design and undertake investigations involving at least one independent, continuous variable.

Unit 3 - How do fields explain motion and electricity?

Students explore the importance of energy in explaining and describing the physical world. They examine the production of electricity and its delivery to homes. Students consider the field model as a construct that has enabled an understanding of why objects move when they are not apparently in contact with other objects. Applications of concepts related to fields include the transmission of electricity over large distances and the design and operation of particle accelerators. They explore the interactions, effects and applications of gravitational, electric and magnetic fields. Students use Newton's laws to investigate motion in one and two dimensions, and are introduced to Einstein's theories to explain the motion of very fast objects. They consider how developing technologies can challenge existing explanations of the physical world, requiring a review of conceptual models and theories. Students design and undertake investigations involving at least two continuous independent variables.

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

Students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and explore its limitations in describing light behaviour. Students further investigate light by using a particle model to explain its behaviour. A wave model is also used to explain the behaviour of matter which enables students to consider the relationship between light and matter. Students learn to think beyond the concepts experienced in everyday life to study the physical

world from a new perspective. Students design and undertake investigations involving at least two continuous independent variables.

Career or tertiary links: Physics leads into studying Physics and Engineering in future courses. It works in conjunction with Mathematics.

Physical Education

Unit 1 - The Human Body in Motion

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

Unit 2 - Physical Activity, Sport and Society

Students gain an understanding of physical activity, sport and society from a participatory perspective. They are introduced to different types of physical activity and the role physical activity and sedentary behaviour plays in their own health and wellbeing as well as others. Through a series of practical activities, students experience and explore different types of physical activity promoted by various population groups. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. Students investigate the various consequences of physical inactivity and sedentary behaviour. They apply various methods to assess physical activity and sedentary behaviour and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply a range of strategies that are effective in promoting participation in regular physical activity.

Unit 3 - Movement Skills and Energy for Physical Activity

Students explore various biomechanical and skill acquisition principles that are used to analyse human movement and energy production from a physiological perspective. They examine a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve movement in physical activity, sport and exercise. Students investigate the different characteristics, relative contributions and interplay of the three energy systems to physical activity, exercise and sports performance. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery for the different energy systems.

Unit 4 - Training to Improve Performance

Students analyse movement skills from a physiological, psychological and sociocultural perspective, and apply relevant training principles and methods to improve performance within physical activity. Students analyse skill frequencies, movement patterns, heart rates and work to rest ratios to determine the requirements of an activity. Students consider the physiological, psychological and sociological requirements of training to design and evaluate an effective training program.

Career or tertiary links: This is a life-relevant course, but also forms a very good foundation for tertiary courses such as Teaching, Nursing, Occupational Therapy, Biomedical/Health Science, Sport and Exercise Science, Physiotherapy.

Food Studies

Unit 1 - Food Origins

Students focus on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world. Students explore how humanity has historically sourced its food, examining the general progression from hunter-gatherer to rural-based agriculture, to today's urban living global trade in food. Students consider the origins and significance of food through inquiry into particular food-producing regions of the world.
Students also investigate Australian indigenous food prior to European settlement and how food patterns have changed over time. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of Australian cuisine. They consider the influence of technology and globalisation on food patterns.

Unit 2 - Food Makers

Students investigate food systems in contemporary Australia, exploring both commercial food production industries and food production in small-scale domestic settings. 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 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. Students design new food products and adapt recipes to suit particular needs and circumstances.

Unit 3: Food in Daily Life

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

Unit 4: Food Issues, Challenges and Futures

Students examine debates about global and Australian food systems. Students focus on issues related to the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land. Students also investigate individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. Students consider how to assess information and draw evidence-based conclusions, and apply this methodology to navigate contemporary food fads, trends and diets. Students' food production repertoire reflects the Australian Dietary Guidelines and the Australian Guide to Healthy Eating.

Career or tertiary links: This is a life-relevant course, but also forms a very good foundation for tertiary courses such as Teaching, Nursing, Nutrition and any food-related careers, such as Hospitality, Marketing, Retail.

Legal Studies

Unit 1 - Guilt and Liability

Criminal law and civil law aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order and infringing criminal law can result in charges. Civil law deals with the infringement of a person's or group's rights and breaching civil law can result in litigation. In this unit 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 actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. In doing so, students develop an appreciation of the way in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused and the liability of a party in a civil dispute

Unit 2 - Sanctions, Remedies and Rights

Criminal law and civil law aim to protect the rights of individuals. When rights are infringed, a case or dispute may arise which needs to be determined or resolved, and sanctions or remedies may be imposed. This unit focuses on the enforcement of criminal law and civil law, the methods and institutions that may be used to determine a criminal case or resolve a civil dispute, and the purposes and types of sanctions and remedies and their effectiveness. Students undertake a detailed investigation of two criminal cases and two civil cases from the

past four years to form a judgement about the ability of sanctions and remedies to achieve the principles of justice. Students develop their understanding of the way rights are protected in Australia and in another country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

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 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 Victorian legal institutions and bodies available to assist with cases. Students explore matters 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. They discuss recent reforms from the past four years and recommended reforms to enhance the ability of the justice system to achieve the principles of justice. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

Unit 4 - The People and the Law

The study of Australia's laws and legal system involves an understanding of institutions that make and reform our laws, and the relationship between the Australian people, the Australian Constitution and law-making bodies. In this unit, students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and 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 law reform. Throughout this unit, students apply legal reasoning and information to actual scenarios.

Career or tertiary links: This subject is valuable for students considering study or career pathways in law, arts, business studies, social and community development and criminology. Legal studies helps develop the critical analysis skills needed to succeed in almost any career.

Business Management

Unit 1 - Planning a Business

Students explore the motivation behind starting a business. They look at sources of business opportunity, goal setting in business, the characteristics of a successful entrepreneur, the importance of market research and the importance of business to the nation. They explore the planning of a business with respect to the external environment, including the consideration of legal and government regulations, societal attitudes, economic conditions, technological

issues, global issues, corporate social responsibility, customer needs and expectations, competitors' behaviour, the supply chain and special interest groups.

Unit 2 - Establishing a Business

Students complete three areas of study. The first area focuses on the legal requirements and financial considerations of establishing a business. Financial record-keeping and establishing effective policies and procedures are important areas considered. The second area of study covers the marketing of a business, establishing a customer base, analysing effective marketing and public relations strategies. The third area of study covers the staffing of a business and discussing the benefits and limitations of management strategies in this area from both an employer and an employee perspective. Business-related case studies are applied to all three areas of study.

Unit 3 - Managing a Business

Students explore the key processes and issues concerned with managing a business efficiently and effectively to achieve business objectives. Students examine the different types of businesses and their respective objectives. They consider corporate culture, management styles, management skills and the relationship between each of these areas. Students investigate strategies to manage both staff and business operations to meet objectives. Through the use of contemporary business case studies from the past four years students have the opportunity to compare theoretical perspectives with current practice.

Unit 4 - Transforming a Business

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 theoretical models 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 leadership in change management. Using contemporary business case studies, students evaluate business practice against theory.

Career or tertiary links: This is a life-relevant course, but also forms a very good foundation for tertiary courses such as Teaching, Business, Marketing, Management.

Accounting

Unit 1 - Role of accounting in business

Students explore the establishment of a business and the role of accounting in the determination of business success or failure. They investigate reasons for establishing a business and are introduced to the processes of gathering, recording and reporting financial data. Students use the accrual method for determining profit for a service business operating as a sole proprietor with cash and credit transactions. They analyse accounting information using the Conceptual Framework and use financial and non-financial indicators to measure business performance, taking into account the range of ethical considerations faced by business owners when making decisions. Students use these evaluations to make recommendations regarding the suitability of a business as an investment.

Unit 2 - Accounting and decision-making for a trading business

Unit 2 extends the accounting process from a service business and focuses on accounting for a sole proprietor of a single activity trading business. Students use a single entry recording system for cash and credit transactions and the accrual method for determining profit, with a focus on inventory, accounts receivable, accounts payable and non-current assets. They analyse and evaluate the performance of a business using relevant financial and other information to predict, budget and compare the potential effects of alternative strategies on the performance of the business. Using these evaluations, students develop and suggest strategies to improve business performance. Students further develop their understanding of the importance of ICT in the accounting process to establish a set of accounts, record financial transactions and generate accounting reports.

Unit 3 - Financial accounting for a trading business

Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting for a trading business owned by a sole proprietor that uses the perpetual method of inventory. They develop their understanding of the accounting processes for recording and reporting and consider the effect of decisions made on the performance of the business, including ethical considerations regarding financial, social and environmental choices. Students interpret reports, financial and non-financial information and analyse a range of strategies that could be used by an owner to improve the performance of the business.

Unit 4 - Recording, reporting, budgeting and decision-making

Students extend their understanding of accounting for a trading business owned by a sole proprietor with the inclusion of balance day adjustments and alternative depreciation methods within the recording and reporting process. They investigate both the role and importance of budgeting in decision-making for a business. They analyse and interpret accounting reports using financial indicators and graphical representations to evaluate the performance of a business. From this evaluation, students suggest strategies to improve business performance as well as the ethical considerations of business owners when making decisions, including financial, social and environmental.

Career or tertiary links: This is a life-relevant course, but also forms a very good foundation for tertiary courses such as Accounting, Teaching, Business and Management.

Whole School experiences Years 7-12

Weekly Chapel

A God-centred Christian based whole-school event, giving students the opportunity for worship, music, leadership, fellowship and public speaking. All students attend chapel and are encouraged to be actively involved if they choose. A student's personal faith and worldview is respected while Christian values are highlighted and reinforced. The program is coordinated and run by the school chaplains and led by the student ministry team.
Timetabled for one lesson every week.

Weekly Sport

The sports program at Nunawading Christian College is an exciting and challenging experience for all involved. In 2000, the College joined the Eastern Independent Schools of Melbourne Sporting Association (commonly known to the students as the EISM). Through this program, students participate in quality sporting carnivals and mid-week competitive sports in the eastern region of Melbourne. Our experience thus far with the association has required our students to rise to their personal best in sporting abilities, sportsmanship and behaviour.

Students take part in a range of sports, in weekly competitions against other schools from the Eastern Independent Schools of Melbourne (eism.org). EISM is a premier Co-educational midweek schools' sporting competition in Victoria. Inter-school activities are arranged and entered into to cultivate friendship, goodwill and a spirit of sportsmanship and comradeship. A spirit of cooperation, generosity, courtesy and consideration, together with healthy competition is to prevail at all times.

2022 sports options include:
Boys: Basketball, Volleyball, Soccer, Table Tennis, Tennis, Badminton, Hockey and Indoor Cricket.
Girls: Basketball, Netball, Table Tennis, Hockey, Soccer, Tennis, Volleyball and Softball.

Sports House groups

The Secondary school is divided into 3 houses:

- Landy - Blue
- Fraser - Red
- Jackson - Green

These Houses compete in a variety of inter-house competitions.

Carnivals

- NCC Swimming Carnival - all students participate
- EISM Swimming Carnival - top-placing students from the NCC Swimming Carnival

- EISM Champions Carnival - top-placing students from the EISM Swimming Carnival
- NCC Athletics Carnival - all students participate
- EISM Athletics Carnival - top-placing students from the NCC Athletics Carnival
- EISM Champions Carnival - top-placing students from the EISM Athletics Carnival
- NCC Cross Country Carnival - all students participate
- EISM Cross Country Carnival - top-placing students from the NCC Cross Country Carnival

Extracurricular opportunities

Leadership Opportunities

- Student Representative Council
- Senior student leadership - Captains, Vice Captains and leadership team
- Spiritual Student Chaplains
- Year 7/11 Program- a Peer Support opportunity for Year 11 students to mentor Year 7 students
- Sports House Captains

Spiritual Opportunities

- Revibe - Friday night student lead and student focused spiritual community
- Chapel Praise and Worship Band
- Choir
- Spiritual Weekend Camp for whole secondary school
- Participation in Church Services

Extra Academic Opportunities

- Early opportunities to take a VCE subject
- Year 9 & 10 Marketing Internship (by application)
- Chess Club
- Book Club
- Debating Club - Evening Competitions
- Private Music Lessons - Guitar, Modern Piano/Keyboard, Drums, Bass Guitar, Flute, Brass - Trumpet, Trombone, Tenor Horn, Tuba, Euphonium.
- FREE music brass lessons to students who participate in the Junior Advent Brass Band.
- Art Club
- Food Club
- Maths Olympiad
- ICAS

Sports Opportunities

- Sports Excellence Academy
- Open Gym fitness training 7:30-8:30am on Monday, Wednesday and Friday for all secondary students, followed by Breakfast Club
- Morning (before school) and lunchtime Strongroom training. Students can engage in a weight training program designed by a personal trainer and fitness staff. Sessions are supervised by qualified staff in our own Strongroom.
- Volleyball Academy - targeted training for students who want to improve their volleyball skills and performance.
- Basketball Academy - targeted training for students who want to improve their basketball skills and performance.

Service Opportunities

- Humanitarian trip to Cambodia in Year 10.
- Participation in chapels and assemblies.
- Assembly PA technicians (TECH TEAM).

Camps

Year level camps:

- Year 7 - Camp Howqua
- Year 8 - Invictus Hiking Camp
- Year 9 - Challenge Surf Camp
- Year 10 - Oversees Camp with a focus on service
- Year 11- Sydney Avondale Camp
- Year 12- Spiritual retreat (at start of the year) & Academic Bootcamp (at the end of the year).

Camps for all students:

- Spiritual Camp for all interested students.
- STORMCO service camp for all Year 10-12 students at the end of the year.