

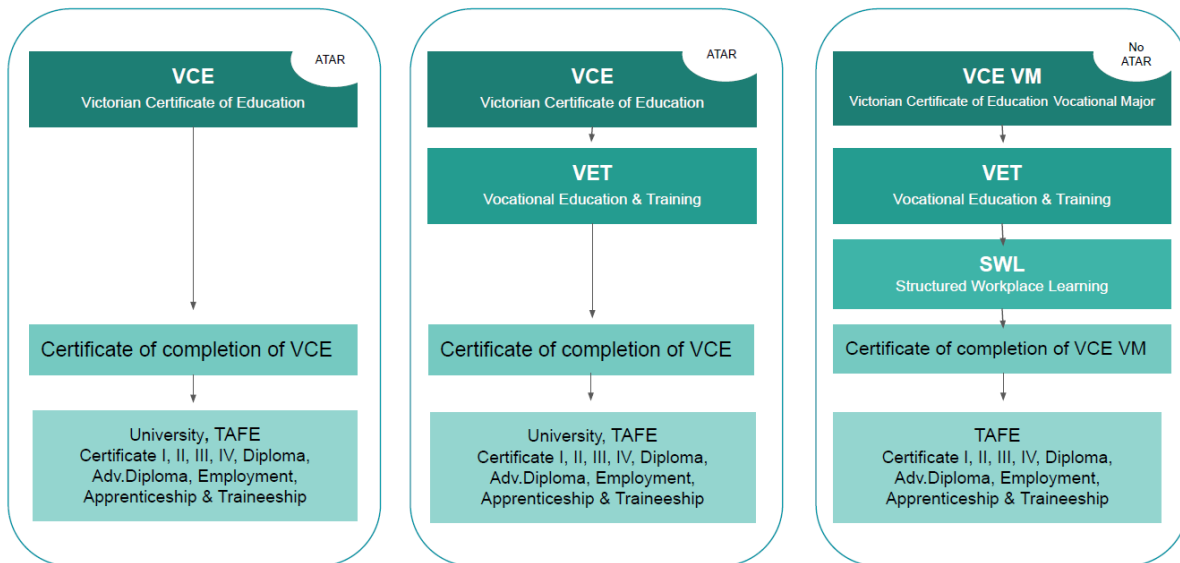
Mirboo North Secondary College



Senior School Handbook 2023



Victorian Certificate of Education



VCE Units Offered in 2023

Descriptions of the following units are contained in this handbook.

Arts

Art Marking and Exhibiting	<i>Unit 1-4</i>
Media Studies	<i>Unit 1-4</i>
Visual Communication & Design	<i>Unit 1-4</i>

English

English	<i>Unit 1-4</i>
English Literature	<i>Unit 1-4</i>

Health & Physical Education

Health & Human Development	<i>Unit 1-4</i>
Physical Education	<i>Unit 1-4</i>

Humanities

Business Management	<i>Unit 1-4</i>
History	<i>Unit 1-4</i>
Legal Studies	<i>Unit 1-4</i>

Languages

German	<i>Unit 1-4</i>
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Mathematics

General Maths	<i>Unit 1-4</i>
Mathematical Methods	<i>Unit 1-4</i>

Music

Music	<i>Units 1-2</i>
Music Contemporary Performance	<i>Units 3-4</i>

Science

Biology	<i>Unit 1-4</i>
Chemistry	<i>Unit 1-4</i>
Physics	<i>Unit 1-4</i>
Psychology	<i>Unit 1-4</i>

Technology Studies

Food Studies	<i>Unit 1-4</i>
Product Design & Tech: Wood	<i>Unit 1-4</i>

NB: VCE and VET units will run depending on; student choices, availability of staff, and the provision of a sequential program.

Choosing your VCE Program

Your VCE program is a complete list of the VCE units you complete over two years – or longer if you choose. The minimum number of units to pass VCE is 16 units. You cannot get your VCE by doing fewer. Regardless of how many units you do altogether, you must pass:

- At least three units of English over the two years (which must include Units 3 & 4)
- And three other sequences of 3 & 4 units

Mirboo North Secondary College Guidelines

The school timetable will be organised to enable students to undertake up to six units in any one semester. The normal program will be 6, 6, 5, 5 units in sequence in semesters 1, 2, 3 and 4.

The timetable is arranged in Vertical Module Grouping (VMG). This structure allows students to choose programs from other year levels.

Whilst many Year 11 students will attempt twelve units 1 and 2 over the year, it is envisaged that some students in Year 11 will attempt Year 12 units (3 & 4) or VET units.

Many Year 12 students will attempt five units 3 & 4 sequences over the year, but some students may complete units 1 & 2, VET, or university enhancement units as part of their program.

Selecting and Organising your VCE

We run several counselling sessions to help you choose the most appropriate pathway through Senior School.

Use the following checklist and you should be well on your way to choosing a program that meets your needs. Many of the suggestions apply whether you are considering the usual two-year program or a longer one. Remember, you are not expected to come up with a program out of thin air. Your Senior School Coordinators and Careers teacher will be there to help you.

Step 1: Find out what is possible

- Which units am I interested in doing?
- Which units are available at my school?

Step 2: Make the Choice

Choose units that

- Interest you
- You are good at
- Lead to employment that you find appealing
- Are prerequisites for further training or tertiary courses that you are considering
- Give you an advanced standing in a VET course or are part of a VET in Schools program leading to a VET qualification within your VCE

Accelerated Learning

It is possible for Year 10 students to enrol in a Unit 1 & 2 VCE study, for Year 11 students to undertake a 3- & 4-unit sequence and for Year 12 students to undertake university studies as part of their program.

Approval for acceleration in subjects will be made in consultation with:

- Senior School Team
- Subject Teacher

University Studies

Links have been established with Monash University and the University of Melbourne, which enable talented Year 12 students to undertake a first-year university subject whilst completing their VCE, and thus gain credit towards a first-year degree course.

The general guidelines for student eligibility for enhancement studies include:

- Students may have completed units 3 & 4 of the associated study in Year 11
- Students will have achieved exceptionally high results across all subjects in Year 11
- Students must be undertaking units 3 & 4 of at least four VCE studies in Year 12 and must have completed at least five VCE studies at this level by the end of Year 12.

University enhancement studies count as a student's **sixth** VCE study. On successful completion of the entire first year study (i.e. two semester subjects) the student will have their ATAR credited with 4 – 5.5 bonus points, depending upon the level of performance.

Completion of the course is credited towards a first-year degree course at either Monash University or the University of Melbourne (there is agreement between the universities to accept cross-accreditation).

VCE Unit Descriptions

Only the VCE units offered by Mirboo North Secondary College for 2023 are briefly described and are alphabetically listed.

For full unit descriptions, visit the VCAA website at:

<https://www.vcaa.vic.edu.au/curriculum/vce/vce-study-designs/Pages/vce-study-designs.aspx>

Students should take advantage of resources such as the Job Guide, VICTER Guide, VTAC Courselink, OZJAC, Career Voyager and the Careers Room to fully explore the career opportunities that are open to them.

Art Making and Exhibiting

Materials Cost: Students who undertake Units 1 & 2 will be required to pay **\$70** and **\$100** (Units 3 & 4) per year in material costs. When undertaking any major pieces for Unit 3 & 4, students will need to purchase/supply the necessary materials for these projects.

Unit 1 – Explore, expand and investigate

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

Unit 2 – Understand, develop and resolve

In Unit 2 students continue to research how artworks are made by investigating how artists use aesthetic qualities to represent ideas in artworks. They broaden their investigation to understand how artworks are displayed to audiences, and how ideas are represented to communicate meaning.

Students learn how to develop their ideas using materials, techniques and processes, and art elements and art principles. They consolidate these ideas to plan and make finished artworks, reflecting on their knowledge and understanding of the aesthetic qualities of artworks.

Unit 3 – Collect, extend and connect

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

Unit 4 – Consolidate, present and conserve

In Unit 4 students make connections to the artworks they have made in Unit 3, consolidating and extending their ideas and art making to further refine and resolve artworks in -specific art forms. The progressive resolution of these artworks is documented in the student's Visual Arts journal, demonstrating their developing technical skills in a specific art form as well as their refinement and resolution of subject matter, ideas, visual language, aesthetic qualities and style. Students also reflect on their selected finished artworks and evaluate the materials, techniques and processes used to make them.

Biology

Unit 1 – How do organisms regulate their functions?

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

Unit 2 – How does inheritance impact on diversity?

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

Unit 3 – How do cells maintain life?

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

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

In this unit 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.

Business Management

Unit 1 – Planning a Business

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

Unit 2 – Establishing a Business

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

Unit 3 – Managing a Business

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

Unit 4 – Transforming a Business

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

Chemistry

Unit 1 – How do chemical reactions shape the natural world?

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

Unit 2 – What makes water such a unique chemical?

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

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

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

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

Students study the ways in which organic structures are represented and named. They process data from instrumental analyses of organic compounds to confirm or deduce organic structures and perform volumetric analyses to determine the concentrations of organic chemicals in mixtures. Students consider the nature of the reactions involved to predict the products of reaction pathways and to design pathways to produce particular compounds from given starting materials.

English

Unit 1 – Reading, exploring texts and crafting texts

In this unit student explore personal connections with, and the vocabulary, text structures, language features and ideas in, a text. Students will demonstrate an understanding of effective and cohesive writing through the crafting of their own texts designed for a specific context and audience to achieve a stated purpose; and to describe individual decisions made about the vocabulary, text structures, language features and conventions used during writing processes.

Unit 2 – Reading and exploring texts and exploring argument

In this unit students explore and analyse how the vocabulary, text structures, language features and ideas in a text construct meaning. Students will explore and analyse persuasive texts within the context of a contemporary issue, including the ways argument and language can be used to position an audience; and to construct a point of view text for oral presentation.

Unit 3 – Reading and creating texts and analysing argument

In this unit students read and respond to texts analytically and creatively. They analyse arguments and the use of persuasive language in texts. Students will produce an analytical interpretation of a selected text, and a creative response to a different selected text. Students will be able to analyse and compare the use of argument and persuasive language in texts that present a point of view on an issue currently debated in the media.

Unit 4 – Reading and comparing texts and presenting argument

In this area of study students explore the meaningful connections between two texts. They analyse texts, including the interplay between character and setting, voice and structure, and how ideas, issues and themes are conveyed. Students will produce a detailed comparison which analyses how two selected texts present ideas, issues and themes. Students will build their understanding of both the analysis and construction of texts that attempt to influence audiences. Students will construct a sustained and reasoned point of view on an issue currently debated in the media.

English Literature

Unit 1 – Reading practices and exploration of literary movements and genres

In this area of study students consider how language, structure and stylistic choices are used in different literary forms and types of text. Students closely examine the literary forms, features and language of texts. They begin to identify and explore textual details, including language and features, to develop a close analysis response to a text. Students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Students must study at least one complete text alongside multiple samples of other texts from the selected movement or genre.

Unit 2 – Voices of country and the text in its context

In this area of study students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation. Student's focus on the text and it's historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text. Students explore the text to understand its point of view and what it reflects or comments on.

Unit 3 – Adaptations, transformations and developing interpretations

In this area of study students focus on how the form of a text contributes to its meaning. Students explore the form of a set text by constructing a close analysis of that text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaptation. Students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text. Students first develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language.

Unit 4 – Creative responses and close analysis of texts

In this area of study students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as context and form change to construct their own creative transformations of texts. They learn how authors develop representations of people and places, and they develop an understanding of language, voice, form and structure. Students focus on a detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the ways specific passages in a text contribute to their overall understanding of the whole text. Students consider literary forms, features and language, and the views and values of the text. They write expressively to develop a close analysis, using detailed references to the text.

Food Studies

Materials Cost: Students who undertake Units 1 & 2 and Units 3 & 4 will be required to pay **\$120** per unit to cover the cost of food. **Additional costs** may be incurred if students choose food items for their folios that are expensive or hard to source.

Unit 1 – Food Origins

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

consider the origins and significance of food through inquiry into one particular food-producing region of the world.

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

Unit 2 – Food Makers

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

Unit 3 – Food in Daily Life

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

Area of Study 2 focuses on influences on food choices: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments.

Unit 4 – Food Issues, Challenges and Futures

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

In Area of Study 1 students focus on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. They also consider the relationship between food security, food sovereignty and food citizenship.

In Area of Study 2 students focus on issues about the environment, climate, ecology, ethics, farming practices, including the use and management of water and land, the development and application of innovations and technologies, and the challenges of food security, food sovereignty, food safety and food wastage.

German

Unit 1

In this unit students develop an understanding of the language and culture/s of German-speaking communities through the study of three or more topics from the prescribed themes listed. Each area of study in the unit must focus on a different subtopic. Students access and share useful information on the topics and subtopics through German and consolidate and extend vocabulary and grammar knowledge and language skills. They focus on analysing cultural products or practices including visual, spoken or written texts.

Unit 2

In this unit students develop an understanding of aspects of language and culture through the study of three or more topics from the prescribed themes. Each area of study must focus on a different subtopic. Students analyse visual, spoken and written texts. They access and share useful information on the topics and subtopics through German and consolidate and extend vocabulary, grammar knowledge and language skills.

Units 3 & 4

The areas of study comprise themes and topics, grammar text types, vocabulary and kinds of writing. In these units, students undertake a detailed study of Language and Culture through texts. Students should be able to express ideas through the production of original texts, analyse and use information from spoken and written texts and exchange information, opinions and experiences. They should also be able to respond critically to spoken and written texts, which reflect aspects of the language and culture of German-speaking communities.

Health & Human Development

Unit 1 – Understanding Health and Wellbeing

This unit looks at health and wellbeing as a concept with varied and evolving perspectives and definitions. It takes the view that health and wellbeing are subject to a wide range of contexts and interpretations, with different meanings for different people. As a foundation to the understanding of health, students should investigate the World Health Organization's (WHO) definition and explore other interpretations. Wellbeing is a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged. For the purposes of this study, students should consider wellbeing to be an implicit element of health.

Unit 2 – Managing Health and Development

This unit investigates transitions in health and wellbeing, and development, from lifespan and societal perspectives. Students look at changes and expectations that are part of the progression from youth to adulthood. This unit promotes the application of health literacy skills through an examination of adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes.

Unit 3 – Australia's Health in a Globalised World

This unit looks at health, wellbeing and illness as multidimensional, dynamic and subject to different interpretations and contexts. Students begin to explore health and wellbeing as a global concept and to take a broader approach to inquiry. As they consider the benefits of optimal health and wellbeing and its importance as an individual and a collective resource, their thinking extends to health as a universal right. Students look at the fundamental conditions required for health improvement, as stated by the World Health Organization (WHO). They use this knowledge as background to their analysis and evaluation of variations in the health status of Australians.

Unit 4 – Health and Human Development in a Global Context

This unit examines health and wellbeing, and human development in a global context. Students use data to investigate health status and burden of disease in different countries, exploring factors that contribute to health inequalities between and within countries, including the physical, social and economic conditions in which people live. Students build their understanding of health in a global context through examining changes in burden of disease over time and studying the key concepts of sustainability and human development. They consider the health implications of

increased globalisation and worldwide trends relating to climate change, digital technologies, world trade and the mass movement of people.

History

Units 1 & 2 – Empires

In Units 1 and 2 Empires, students investigate the foundations and features of empires and the significant global changes they brought to the wider world in the early modern period. Empires at their core were expansionist, dominating trade and political influence in their regional or global contexts. A range of key factors arising from the social, political, economic, cultural, religious, environmental and technological features of Empires played a role in the ambition and quest for power, prestige and influence over rival and competing states.

Russian Empire (1552–1894)

Qing Dynasty (1644–1911)

Units 3 & 4 – Revolutions

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

- The Russian Revolution
- The Chinese Revolution.

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.

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.

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.

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.

Mathematics

Prerequisites

Students need to be aware of the necessity to be committed to this subject throughout their senior schooling if they intend to use it as an entry subject to further study. Students will have a mathematics subject recommended to them near the completion of each semester. This recommendation is made on the basis of what the current Mathematics teacher feels the student is capable of, in light of their observations of the student and their results over the semester. It is unlikely that a student who fails to meet the pre-requisite level will be allowed into that subject. Past experience has shown us that these grades are a very realistic assessment of future success in the various subjects.

***Please note, students require a TI-Nspire CX II CAS calculator for all units of mathematics**

Units 1 & 2 – General Mathematics

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

The areas of study for Unit 2 of General Mathematics are 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs' and 'Space and measurement'.

Units 3 & 4 – General Mathematics

General Mathematics Units 3 and 4 focus on real-life application of mathematics and consist of the areas of study 'Data analysis, probability and statistics' and 'Discrete mathematics'.

Unit 3 comprises 'Data analysis and Recursion' and financial modelling, and Unit 4 comprises 'Matrices and Networks' and decision mathematics.

Units 1 & 2 – Mathematical Methods

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

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

The focus of Unit 2 is the study of simple transcendental functions, the calculus of polynomial functions and related modelling applications. The areas of study are 'Functions, relations and

graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'.

Units 3 & 4 – Mathematical Methods

Mathematical Methods Units 3 and 4 extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Units 3 and 4 consist of the areas of study 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Calculus', and 'Functions, relations and graphs', which must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4.

Media Studies

Materials Cost: Students who undertake Units 1 & 2 will be required to pay \$30 and \$50 (Units 3 & 4) per year in material costs. for rental, wear and tear on equipment.

Unit 1 – Representation and Technologies of Representation

In this unit students develop an understanding of the relationship between the media, technology and the representations present in media forms. They study the relationships between media technologies, audiences and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, the role audiences play in constructing meaning from media representations, and the creative and cultural impact of new media technologies.

Unit 2 – Media Production and the Media Industry

The main purpose of this unit is to enable students to develop an awareness of the specialist production stages and roles within the collaborative organisation of media production. Students develop practical skills and analyse issues concerning the media production process.

Unit 3 – Narrative and Media Production Design

In this unit students develop an understanding of film, television or radio drama production and story elements, and learn to recognise the role and significance of narrative organisation in fictional film, television or radio drama texts. Students examine how production and story elements work together to structure meaning in narratives to engage audiences. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They complete a media production design plan for a specific media form and audience. They present the relevant specifications as a written planning document, with visual representations that employ media planning conventions appropriate to the media form in which the student chooses to work.

Unit 4 – Media: Process, Influence and Society's Values

In this unit students further develop practical skills in the production of media products to realise the production design plan completed during Unit 3. Organisational and creative skills are refined and applied throughout each stage of the production process. Students analyse the relationship between media texts, social values and discourses in the media. The nature and extent of media influence, the relationship between the media, media audiences and media regulation are also critically analysed in this unit.

Music

Materials Cost: Students who undertake Units 1 & 2 and Units 3 & 4 will be required to pay \$60 fee to cover online subscription costs.

Additional Information

All students undertaking Music Performance must be having regular lessons on their main instrument, either privately or through the SGSMP.

Unit 1 – Organisation of music

In this unit students explore and develop their understanding of how music is organised. By performing, creating, analysing and responding to music works that exhibit different approaches, students explore and develop their understanding of the possibilities of musical organisation.

Unit 2 – Effect in music

In this unit, students focus on the way music can be used to create an intended effect. By performing, analysing and responding to music works/examples that create different effects, students explore and develop their understanding of the possibilities of how effect can be created. Through creating their own music, they reflect this exploration and understanding.

Units 3& 4 – Music contemporary performance

This study offers pathways for students whose performance practice includes embellishment and/or improvisation, uses collaborative and aural practices in learning, often takes recordings as a primary text, and projects a personal voice. Students study the work of other performers and analyse their approaches to interpretation and how personal voice can be developed through reimagining existing music works. They refine selected strategies to enhance their own approach to performance.

In Unit 3 students begin developing the program they will present in Unit 4. Students should refer to the examination specifications to make sure that the works selected allow them to best meet the requirements and conditions of this task. They use music analysis skills to refine strategies for developing their performances.

In Unit 4 students continue to work towards building a performance program they will present at their end-of-year examination in line with their Statement of Intent. The program will contain at least one performance that is a reimagined version of an existing work and an original work created by an Australian artist since 1990.

Physical Education

Unit 1 – The Human Body in Motion

In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity.

Unit 2 – Physical Activity, Sport and Society

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

Unit 3 – Movement Skills and Energy for Physical Activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport.

Unit 4 – Training to Improve Performance

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

Physics

Unit 1 – How is energy useful to society?

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

Unit 2 – How does physics help us to understand the world?

In this unit students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments.

In Area of Study 1, students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary and apply these concepts to a chosen case study of motion.

In Area of Study 2, students choose one of eighteen options related to climate science, nuclear energy, flight, structural engineering, biomechanics, medical physics, bioelectricity, optics, photography, music, sports science, electronics, astrophysics, astrobiology, Australian traditional artefacts and techniques, particle physics, cosmology and local physics research.

Unit 3 – How do fields explain motion and electricity?

In this unit students explore the importance of energy in explaining and describing the physical world. They examine the production of electricity and its delivery to homes. Students consider the field model as a construct that has enabled an understanding of why objects move when they are not apparently in contact with other objects. 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.

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

A complex interplay exists between theory and experiment in generating models to explain natural phenomena including light. Wave theory has classically been used to explain phenomena related to light; however, continued exploration of light and matter has revealed the particle-like properties of light. On very small scales, light and matter – which initially seem to be quite different – have been observed as having similar properties.

Product & Design Technology - Wood

Materials Cost: Students who undertake Units 1 and Units 3 & 4 will be required to pay **\$135** per year in material costs. When undertaking any major pieces, students will need to purchase/supply the necessary materials for their chosen projects.

Unit 1 – Product Re-design and Sustainability

This unit focuses on the analysis, modification and improvement of a product design with consideration of the materials used and issues of sustainability. Finite resources and the proliferation of waste require sustainable product design thinking. Many products in use today have been redesigned to suit the changing needs and demands of users but with little consideration of their sustainability.

Unit 2 – Collaborative Design

In this unit students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. They focus on factors including: human needs and wants; function, purpose and context for product design; aesthetics; materials and sustainability; and the impact of these factors on a design solution.

Unit 3 – Applying the Product Design Process

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

Unit 4 – Product Development and Evaluation

In this unit students learn that evaluations are made at various points of product design, development and production. In the role of designer, students judge the suitability and viability of design ideas and options referring to the design brief and evaluation criteria in collaboration with a client and/or an end-user. Comparisons between similar products help to judge the success of a product in relation to a range of Product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the Product design factors.

Psychology

Unit 1 – How are behaviour and mental processes shaped?

In this unit students examine the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary knowledge from Western and non-Western societies, including Aboriginal and Torres Strait Islander peoples, has made to an understanding of psychological development and to the development of psychological models and theories used to predict and explain the development of thoughts, emotions and behaviours. They investigate the structure and functioning of the human brain and the role it plays in mental processes and

behaviour and explore brain plasticity and the influence that brain damage may have on a person's psychological functioning.

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

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

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

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

Students investigate how the human nervous system enables a person to interact with the world around them. They explore how stress may affect a person's psychological functioning and consider stress as a psychobiological process.

Students investigate how mechanisms of learning and memory lead to the acquisition of knowledge and the development of new and changed behaviours. They consider models to explain learning and memory as well as the interconnectedness of brain regions involved in memory.

Unit 4 – How is mental wellbeing supported and maintained?

In this unit students explore the demand for sleep and the influences of sleep on mental wellbeing. They consider the biological mechanisms that regulate sleep and the relationship between rapid eye movement (REM) and non-rapid eye movement (NREM) sleep across the life span. They also study the impact that changes to a person's sleep-wake cycle and sleep hygiene have on a person's psychological functioning.

Students consider ways in which mental wellbeing may be defined and conceptualised, including social and emotional wellbeing (SEWB) as a multidimensional and holistic framework to wellbeing. They explore the concept of mental wellbeing as a continuum and apply a biopsychosocial approach, as a scientific model, to understand specific phobia.

Visual Communication & Design

Materials Cost: Students who undertake Units 1 & 2 will be required to pay \$50 and \$70 (Units 3 & 4) per year in material costs. When undertaking any major pieces for Unit 3 & 4, students will need to purchase/supply the necessary materials for these projects.

Unit 1 – Visual Communication

The main purpose of this unit is to enable students to prepare instrumental drawings of objects and explore freehand drawing from direct observation. This unit also introduces students to the diversity of visual communication and the role of the design process in visual communication production.

Unit 2 – Communication in Context

The main purpose of this unit is to enable students to develop practical skills by generating images and developing them through freehand and instrumental drawing. The ways in which information and ideas are communicated visually will be explored through analysing the work of

others. The visual communication production process will be applied by modifying existing final presentations for specified audiences.

Unit 3 – Visual Communication Practices

The main purpose of this unit is to enable students to apply the visual communication production process to satisfy specific communication needs. Students will investigate the production of visual communications in a professional setting and evaluate examples of visual communications produced.

Unit 4 – Designing to a Brief

The main purpose of this unit is to enable students to prepare one brief, and design and produce developmental work and two final presentations based on the brief.

VCE Vocational Major (VCE VM)

Victoria is moving to a new integrated senior secondary certificate from 2023 (this will be fully integrated by 2025). Successful students will receive a VCE Certificate upon meeting the required units, detailed below.

The Victorian Certificate of Education Vocational Major is a two-year vocational and applied learning program that is designed to enable students to successfully transition into apprenticeships, traineeships, further education and training, or directly into employment.

Successful completion of the VCE VM will provide students with skills that are important for life, work and further study as well as a VCE Certificate and/or Enhanced Statement of Results if a student chooses to exit prior to completion of the two years. For example, if a student exits at the end of year 11 they will receive an Enhanced Statement of Results.

The VCE VM will develop and extend pathways for students from school to further education, training and work. For example, upon completion of the VCE VM, students can enter into a traineeship, an apprenticeship and/or a TAFE course.

Further information about VCE VM is available from the following Website:

<https://www.vcaa.vic.edu.au/studentguides/where-to-now/Pages/Index.aspx>

Your VCE VM program is a complete list of the VCE/VM units you complete over two years – or longer if you choose. The minimum number of units to pass VCE VM is 16 units. You cannot get your VCE VM by doing fewer. To be eligible for the VCE VM certificate, students must successfully complete:

- At least three units of Literacy over the two years (which must include Units 3 & 4)
- And three other sequences of 3 & 4 units
- A minimum of 180 Hours of VET at Certificate II or higher.

At Mirboo North Secondary College, we strongly recommend that VCE VM students undertake one day a week of Structured Workplace Learning in a field that compliments their VET studies.

All VCE VM students will enrol in a VET program, where they will be required to complete a minimum of 180 hours over the two years, at Certificate II or above. These course opportunities are delivered offsite at a variety of locations, by our education partners.

VM Literacy

VCE Vocational Major Literacy focuses on the development of the knowledge and skills required to be literate in Australia today. The key knowledge and key skills encompass a student's ability to interpret and create texts that have purpose, and are accurate and effective, with confidence and fluency.

Students must complete 3 units of Literacy, including a 3 & 4 sequence.

Unit 1

The main purpose of this unit is for students to develop their reading, viewing, responding and digital literacy skills. Students will study visual and film texts, critically assess digital texts, including webpages for vocational and workplace settings, podcasts and social media to examine how purpose, language and structure influence the audience of a text.

Unit 2

The main purpose of this unit is for students to engage in issues that are characterised by disagreement or discussion, developing and expanding upon students' learning from Unit 1. Students will practise their use of persuasive language and participate in discussion of current issues.

Unit 3

The main purpose of this unit is for students to become familiar with and develop confidence in understanding and accessing texts of an informational, organisational and procedural nature. Students will focus on texts about an individual's rights and responsibilities within organisations, workplaces and vocational groups.

Unit 4

The main purpose of this unit is for students to illustrate understanding of the use of language in advocacy by producing a range of written, visual and multimodal texts for the promotion of self, a product or a chosen community group. Students will use their knowledge and understanding of language, context and audience to complete an oral presentation that showcases their learning.

VM Numeracy

The four units of VM Numeracy are focused on enabling students to develop and enhance their numeracy skills to make sense of their personal, public and vocational lives. Students develop mathematical skills with consideration of their local, national and global environments and contexts, and an awareness and use of appropriate technologies. This mathematical knowledge is then applied to tasks which are part of the students' daily routines and practices, but also extends to applications outside the immediate personal environment, such as the workplace and community.

Over the course of the 2-year VCE VM program, students must complete 2 Numeracy or VCE Mathematic units.

VM Work Related Skills

Students will develop a broad understanding of workplace environments and the future of work and education, in order to engage in theoretical and practical planning and decision-making for a successful transition to their desired pathway. This will include students completing tasks including OH&S training, applying for jobs, interview techniques and digital literacy.

In addition, students will complete at least 100 hours of structured work place learning. This will preferably be in an industry that relates to their chosen VET course. They will document particular details about the placement to meet the Learning Outcomes.

External, non-accredited programs or experiences can be included in a student's learning program if it enables the achievement of the Learning Outcomes of a Work-Related Skills unit. It can include:

- Work experience
- Part-time work undertaken
- TAFE Taster programs

Over the 2-year VCE VM course, students must complete 2 units of Work Related Skills. Students must meet the Learning Outcomes for each unit to gain one credit.

Unit 1 – Careers and Learning for the Future

The purpose of this unit is for the student to investigate information relating to future employment, including entry-level pathways, emerging industries, and growth industries and trends, and evaluate the impact of pursuing employment in different industries. Students will reflect on this research in the context of their individual skills, capabilities and education and/or employment goals. They will develop and apply strategies to communicate their findings.

Unit 2 – Workplace Skills and Capabilities

The purpose of this unit is for the student to consider the distinction between essential employability skills, specialist and technical work skills and personal capabilities, and understand the importance of training and development to support the attainment and transferability of skills. Students will collect evidence and artefacts relating to their personal skills and capabilities and promote them through resumes, cover letters and interview preparation.

Unit 3 – Industrial Relations, Workplace Environment and Practice

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

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

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

Unit 4 – Portfolio Preparation and Presentation

The purpose of this unit is for the student to develop and apply their knowledge and skills relating to portfolios, including the features and characteristics of a high-quality physical and/or digital portfolio. The unit culminates in the formal presentation of a completed portfolio in a panel style interview and an evaluation of the end product.

VM Personal Development Skills

This study provides opportunities for students to explore influences on identity, set and achieve personal goals, interact positively with diverse communities, and identify and respond to challenges. Students will develop skills in self-knowledge and care, accessing reliable information, teamwork, and identifying their goals and future pathways. Students will explore concepts of effective leadership, self-management, project planning and teamwork to support them to engage in their work, community and personal environments.

Unit 1 – Healthy Individual

The purpose of this unit is for the student to enhance their understanding of community cohesion, community engagement and how sense of identity may affect outcomes in different contexts. Students will investigate local health-promoting organisations and resources and play an active, participatory role in designing and implementing activities or mechanisms to improve health and wellbeing. This unit highlights the importance of critical and creative thinking and clear communication as individuals explore personal identity and the role of community.

Unit 2 – Connecting with Community

The purpose of this unit is for students to focus on the benefits of community participation and how people can work together effectively to achieve a shared goal. Students will look at the relationships between active citizenship, empathy and connection to culture, and individual health and wellbeing. They will investigate the barriers and enablers to problem solving within the community through the planning, implementation and evaluation of an active response to an individual's need for community support.

Unit 3 – Leadership and Teamwork

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

Unit 4 – Community Project

The purpose of this unit is for the student to identify environmental, cultural, economic and social issues affecting the community and select one for an extended community project. Students will engage in a process of planning, implementing and evaluating a response to a selected community issue.

Vocational Education & Training (VET)

VCE and VCE VM students can include VET studies within their learning programs. For students completing the VCE VM pathway they must complete a minimum of 180 hours of VET at a Certificate II level or above over the 2-year course.

VET studies can be counted as a Unit 3-4 sequence but this must be counselled and confirmed with College VCE coordinators. In most circumstances this involves the student successfully completing 360 hours of training.

VET studies allow students to:

- gain a nationally recognised qualification in a specific industry, or credit towards one
- contribute towards the completion of their VCE certificate
- study through school-based apprenticeships and traineeships, which are often paid positions.

Students considering doing a VET subject need to be aware that they will be required to catch up on work missed because of their VET day (1 period per subject) during their study periods.

Attendance

It is compulsory for students to attend all VET days. Students who miss days risk not successfully completing their VCAL or VCE Certificate and may further risk being enrolled in a VET course for Senior VCAL.

Applying for a VET or Vocational Course

VET and Vocational Courses are proving to be very popular among students in Gippsland. Students will not automatically be accepted into VET courses and they must do the following:

- Complete an application form (available from the careers teacher)
- Students will be notified if they are successful in gaining a VET position

Students needing assistance with the application should see Ms Summerton or Mrs Woodall.

VET Programs

This is a selection of some of the VET course on offer. See the VET coordinator for a full list.

Agriculture	Certificate II in Agriculture
Animal Handling	Certificate II in Animal Studies
Automotive	Certificate II in Automotive studies
Carpentry	Certificate II in Building and Construction (Carpentry, Painting and Civil Construction)
Child Care	Certificate II in Early Childhood Education and Care
Community Services	Certificate II in Allied Health Assistance Certificate II in Community Services
Electrical	Certificate II in Electrotechnology – Pre-Vocational
Engineering	Certificate II in Engineering Studies
Hairdressing	Certificate II in Hairdressing
Hospitality	Certificate II in Hospitality, Catering operations
Information Technology	Certificate III in Information and Communications Technology Certificate III in Media
Plumbing	Certificate II in Plumbing – Pre-Vocational

Providers of VET used by Mirboo North Secondary College include:

- TAFE Gippsland
- Community College Gippsland (CCG)
- Apprenticeship Group Australia (AGA)
- Foundation Education (Online Provider)
- GO TAFE (Online Provider)

Contact Us

Acting Principal: Nic Ryan

Acting Assistant Principal: Rebecca Woodall

Senior School Leader: Marina Bruzzese

Middle School Leader: Clayton Cupples

Careers / VET: Tracey Summerton

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