



**EUROA SECONDARY COLLEGE**

"A united community where everybody has responsibility in preparing youth for their future."

**SENIOR SCHOOL**  
**SUBJECT INFORMATION GUIDE**  
**YEAR 10 – 12**  
**2023**

## Contents

Welcome to Senior School.....	4
College Team.....	5
Advice for Making Your Choices .....	6
Learning Pathway Plan.....	7
Curriculum Outline for Year 10.....	8
Compulsory Units.....	9
English .....	9
Mathematics.....	10
General Mathematics.....	10
Mathematical Methods.....	11
History.....	12
Careers.....	12
Elective Units.....	13
Arts.....	13
Studio Arts (Raw Arts).....	13
Visual Communication Design .....	13
Health and Physical Education.....	14
Health and Human Development .....	14
Physical Education (Community Sport) .....	14
Physical Education (Improving Performance).....	14
Humanities.....	15
Business Management & Economics.....	15
Environmental Geography .....	15
Legal Studies.....	16
Languages other than English (LOTE) .....	17
Japanese.....	17
Science.....	18
Biology and Psychology.....	18
Chemistry and Physics.....	18
General Science.....	19
Technology.....	20
Food Studies .....	20
Product Design and Technology (Wood .....	20
Systems Engineering (Electronics and Robotics).....	20
VCE Subject Offerings.....	21
Biology.....	21

Business Management.....	23
Chemistry .....	25
English .....	26
Food Studies.....	27
Human Health & Development.....	29
Legal Studies .....	31
Languages Other Than English (LOTE) – Japanese.....	32
Mathematics .....	33
Outdoor & Environmental Studies.....	36
Physical Education .....	38
Physics.....	40
Product Design & Technology - Wood.....	41
Psychology .....	42
Studio Arts (Art Making and Exhibiting) .....	44
Systems Engineering .....	46
Visual Communication Design .....	47
VCE Vocational Major (VM) .....	48
VM – Literacy .....	49
VM – Numeracy .....	50
VM – Personal Development Skills .....	51
VM – Work Related Skills.....	52
VET Subjects on Offer in 2023.....	53
Certificate III in Sport and Recreation.....	56
Certificate II in Agricultural Studies .....	57
Project Ready – Certificate II in Active Volunteering.....	58

## Welcome to Senior School

The Senior School Program at Euroa Secondary College has been designed to extend students and introduce them to a range of pathways as they enter their senior years. All students are required to undertake 'core' units in English, Mathematics and Careers. Students then choose from a wide range of 'elective' units to complete their learning program. The elective units have been designed to introduce and lead students to the subjects available at VCE level.

Units at Years 10, 11 and 12 have been arranged so that students may choose to undertake units in specialised subject areas. Students taking up the option of VCE studies in year 10 are carefully counselled and monitored during this process.

In addition to undertaking their six chosen subjects, a new world of more vocationally orientated study also becomes available as a realistic alternative for their senior years. Options in VET (Vocational Education and Training) and SBAT (School-based Apprenticeship and Traineeships) programs may also be selected. Please refer to the VET pages toward the end of this handbook for more information on these two programs.

### **Year 10:**

Year 10 studies run for one semester in length, allowing students to explore a wide range of options available. English, Mathematics, Careers and History must be studied in both semester one and two.

All other studies run for one semester, including the VCE units. It is highly recommended that students explore a range of subjects from each domain.

The domains are: English, Mathematics, Arts, Health and Physical Education, Languages other than English (LOTE), Humanities, Science, and Technology.

### **Year 11 - 12:**

In years 11 & 12 students will complete subjects to work toward obtaining their VCE (Victorian Certificate of Education). From 2023, students may wish to complete VCE VM (Vocational Major) which is being implemented to replace VCAL (Victorian Certificate of Applied Learning). Please refer to the section on VCE VM for further details of this option.

Provided in this booklet is a list of studies delivered at Euroa Secondary College, with a brief course outline to help you choose the best course for your individual needs.

The full comprehensive list of VCE studies can be found in the 'Where to Now' guides published annually.

Euroa Secondary College has dedicated and experienced teachers who will provide every support to enable students to achieve their academic and vocational goals. Our College has an excellent reputation and record on achieving extremely high VCE results over many years.

We wish all students well in their final years of education at Euroa Secondary College. If you require any further information, please do not hesitate to contact the appropriate member of our college team.

## College Team

### **2022 Pathways Team:**

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Principal – Ms Leanne Winfield

Assistant Principal – Mr Matthew Koutroubas

Senior Sub-School Leader – Mr Simon Johnston

Year 12 Coordinator – Mrs Kairen Patterson

Year 11 Coordinator – Mr Adrian Bright

Year 10 Coordinator – Ms Stephanie Fry

Pathways Advisor – Mrs Lorelle Healey

Teaching and Learning leader: Mrs Judy Nicholls

### **2022 Curriculum Domain Leaders:**

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English – Ms Madeline McCluskey

Mathematics – Mr Ryan Trembath

Arts – Ms Gladys Sariusak

Health and Physical Education – Mrs Kim Saxon

Humanities – Ms Danielle Harrison

LOTE – Ms Danielle Harrison

Science – Mrs Judy Nicholls

Technology – Mr Shane Read

## Advice for Making Your Choices

You should select subjects that:

- Interest you
- You are good at
- May lead to employment or further education and training that you find appealing

### DO...

- Talk with your parents, subject teachers, domain leaders, pathways advisors, VCE coordinator.
- Go to the VCE Information Evening.
- Read the 'Where to Now' guide.
- Check relevant VICTER guides in careers office or VTAC website. This site lists prerequisite subjects mandatory to apply for each university course on offer when you leave year 12.
- Read all literature on offer to help make informed decisions.

### DON'T...

- Panic if you have no idea, think about what you currently like doing, are good at or have an interest in. Seek help with this research.
- Choose studies that are too easy for you and don't challenge you enough.
- Select subjects just because your friends are doing that study.
- Choose studies that you don't like because you think doing those studies will help you get a 'good ATAR'. Your ATAR represents your performance across all of your studies.
- Choose studies based on the scaling from previous years. There is no point selecting a study that you struggle with simply because it has traditionally been scaled up. You still need to perform well in it to make the scaling count.

## Learning Pathway Plan

**Making a Plan:** Use this table to mark out a pathway for the subjects that you plan to study in Years 10, 11 and 12. Details of each subject can be found on the following pages.

Domain	Year 10	Year 11 VCE Units 1 & 2	Year 12 VCE Units 3 & 4
<b>English</b>	<input checked="" type="checkbox"/> English	<input type="checkbox"/> English <input type="checkbox"/> Literature (DE) <input type="checkbox"/> VM Literacy	<input type="checkbox"/> English <input type="checkbox"/> Literature (DE) <input type="checkbox"/> VM Literacy
<b>Mathematics</b>	<input type="checkbox"/> General Maths <input type="checkbox"/> Math Methods	<input type="checkbox"/> General Maths <input type="checkbox"/> Math Methods <input type="checkbox"/> Specialist Maths (DE) <input type="checkbox"/> VM Numeracy	<input type="checkbox"/> General Maths <input type="checkbox"/> Math Methods <input type="checkbox"/> Specialist Maths (DE) <input type="checkbox"/> VM Numeracy
<b>Art</b>	<input type="checkbox"/> Studio Art (Raw materials) <input type="checkbox"/> Visual Communication Design	<input type="checkbox"/> Art Making and Exhibiting (Studio Art) <input type="checkbox"/> Visual Communication Design	<input type="checkbox"/> Art Making and Exhibiting (Studio Art) <input type="checkbox"/> Visual Communication Design
<b>Health and Physical Education</b>	<input type="checkbox"/> Health & Human Dev. <input type="checkbox"/> P.E. (Community) <input type="checkbox"/> P.E. (Performance)	<input type="checkbox"/> Health & Human Dev. <input type="checkbox"/> Outdoor & Env. St. <input type="checkbox"/> Physical Education	<input type="checkbox"/> Health & Human Dev. <input type="checkbox"/> Outdoor & Env. St. <input type="checkbox"/> Physical Education
<b>Humanities</b>	<input checked="" type="checkbox"/> Careers <input checked="" type="checkbox"/> History <input type="checkbox"/> Business Management & Economics <input type="checkbox"/> Enviro. Geography <input type="checkbox"/> Legal Studies	<input type="checkbox"/> Business Management <input type="checkbox"/> Legal Studies	<input type="checkbox"/> Business Management <input type="checkbox"/> Legal Studies
<b>LOTE</b>	<input type="checkbox"/> Japanese LOTE	<input type="checkbox"/> Japanese LOTE	<input type="checkbox"/> Japanese LOTE
<b>Science</b>	<input type="checkbox"/> Biology & Psychology <input type="checkbox"/> Chemistry & Physics <input type="checkbox"/> General Science	<input type="checkbox"/> Biology <input type="checkbox"/> Chemistry <input type="checkbox"/> Physics <input type="checkbox"/> Psychology	<input type="checkbox"/> Biology <input type="checkbox"/> Chemistry <input type="checkbox"/> Physics <input type="checkbox"/> Psychology
<b>Technology</b>	<input type="checkbox"/> Product Design & Technology (Wood) <input type="checkbox"/> Systems Engineering (Electronics & Robotics) <input type="checkbox"/> Food Studies	<input type="checkbox"/> Product Design & Technology (Wood) <input type="checkbox"/> Systems Engineering <input type="checkbox"/> Food Studies	<input type="checkbox"/> Product Design & Technology (Wood) <input type="checkbox"/> Systems Engineering <input type="checkbox"/> Food Studies
<b>Other</b>	<input type="checkbox"/> VET .....	<input type="checkbox"/> VET ..... (Compulsory for VM/VPC)	<input type="checkbox"/> VET ..... (Compulsory for VM/VPC)

## Curriculum Outline for Year 10 Students

### Compulsory Units

- English
- Mathematics – choose between General Maths or Math Methods
- Careers
- History

### Elective Units – each unit runs for one semester

#### Arts:

- Studio Art (Raw Arts)
- Visual Communication Design

#### Health and Physical Education:

- Health and Human Development
- Physical Education (Community)
- Physical Education (Performance)

#### Humanities:

- Business Management/Economics
- Legal Studies

#### Languages other than English (LOTE):

- Japanese

#### Science:

- Biology/Psychology
- Chemistry/Physics
- General Science

#### Technology:

- Food Studies
- Product Design and Technology (Wood)
- Systems Technology (Electronics and Robotics)



## Compulsory Units

Students must complete the following compulsory Year 10 subjects.

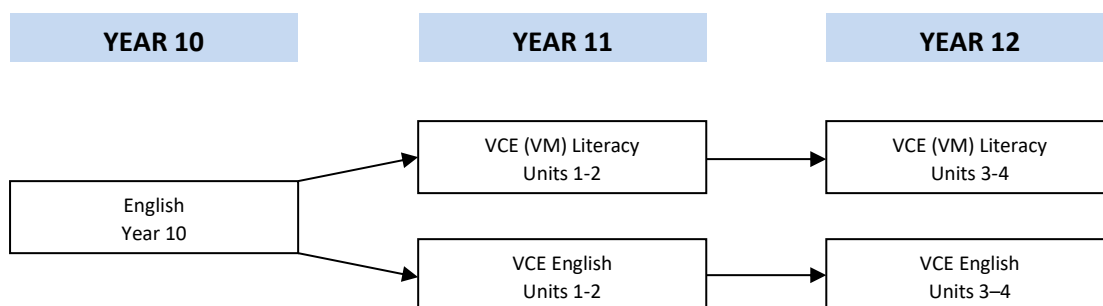
### English

In English, students learn to appreciate, enjoy and use language and develop a sense of its richness and its power to evoke feelings, to form and convey ideas, to inform, to discuss, to persuade, to entertain and to argue. English involves students reading, viewing, writing, comparing, researching and talking about texts.

Understanding texts and recognizing how language works within them is necessary for success at school and beyond for an active, informed and fulfilling life in modern Australian society and the global community. By understanding and working with texts, students acquire the knowledge, skills and personal qualities that enable them to read, view and listen critically and to think, speak and write clearly and confidently.

Students develop an understanding of the way purpose, audience and situation influence the structures and features of language and learn to apply their knowledge in their reading, writing, viewing, speaking and listening. Students learn to control language by applying their understanding of the grammatical structures of English, by learning to spell accurately and use punctuation effectively and by imitating good writers and speakers. Through oral activities, students enhance their communication skills as speakers and listeners.

### English Pathway Map



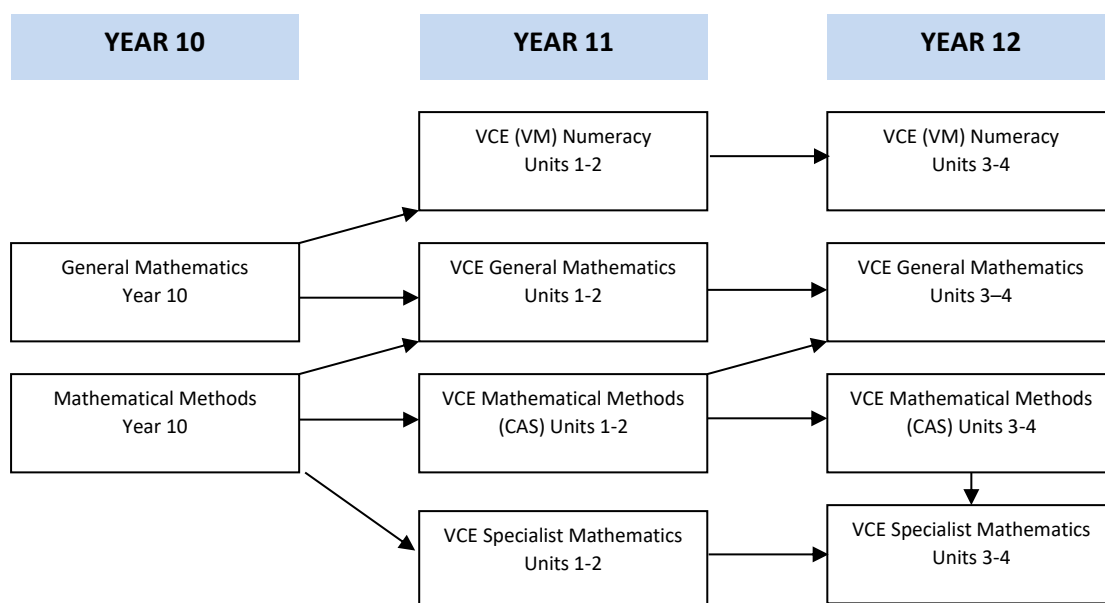
### Pathways

It is compulsory to undertake VCE English Units 1-4, VCE Literature Units 1-4 or VCE (VM) Literacy Units 1-4 to be eligible for a VCE certificate.

## Mathematics

Students across Years 10, 11 and 12 select studies in mathematics that match their ability level and their intended VCE learning pathway. All courses in Mathematics focus on the process of “Working Mathematically”. The curriculum delivery is based upon the solving of interesting problems. The tasks used allow all students to begin their investigations at a level appropriate to their current understanding and skills. Being open ended, the tasks provide the opportunity for all students to establish and extend their mathematical competencies beyond the year level at which they are currently operating.

### Mathematics Pathway Map



#### Pathways

It is compulsory to undertake VCE Mathematics or VCE (VM) Numeracy to be eligible for a VCE (VM) certificate in year 11 and 12.

Students need to select either General Mathematics or Mathematical Methods in Year 10.

## General Mathematics

This area of study has a focus on real-world mathematics and is recommended for students who will need to use some mathematics in a practical way. It is also useful for entry into university, TAFE or other formal education courses.

In this subject, you will look at things like Building Design, Quality Control, Cost of Living, Running a Business and many other real-life topics.

#### Pathways

VCE General Mathematics Units 1-2, or VCE (VM) Numeracy.

## Mathematical Methods

This unit is recommended for students who are considering a tertiary pathway for science, engineering or mathematical fields. It is also recommended for students who have a very good mathematical ability. The emphasis is on learning algebra and graphing skills both on paper and by using a CAS graphics calculator. The graphics calculator can be directly connected to student netbooks, and are an essential part of the learning requirements

### Pathways

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VCE Mathematical Methods Units 1-4.

## History

The twentieth century was an important period in Australia's social, economic, political and cultural development. Students learn how the world changed during times of conflict and war and of cooperation to help understand how Australia has developed and Australia's place today within the Asia-Pacific region. Students will look at the changing attitudes to human rights, particularly those of Australia's Indigenous peoples and the search for reconciliation.

Students will investigate a range of the following issues through different media (film, the Internet, music as well as books and primary sources):

- Global conflict and collective peace (Wars and the United Nations)
- Migration and nation-building - (e.g. Who built the Snowy Mountain Scheme and why?)
- Mass communication and popular culture (influence of film, TV, music, computers)
- Dictatorship and democracy (e.g. How did Hitler or Stalin affect life?)
- Rights and freedoms (voting, civil rights, apartheid, Mabo etc.)
- Decolonisation and globalisation - (e.g. What happened in Vietnam when the French left and why do Nike and Maccas rule?)
- Environment - (Can you make a difference? See how others have. e.g. Greenpeace, Franklin Dam protests)

### Pathways

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VCE History Units 1-4.

## Careers

Students learn about their own personal character strengths, values, interests and skills that connect to employability skills. The course involves investigating their own learning pathway using a range of resources, both on-line and in printed format. Students undertake a range of classroom learning activities including; one week of formal work experience, resume, intro/application letter writing and electronic portfolio creation. Students continue to plan for their year 11 and 12 programs by researching options available within their VCE programs. Students create individual pathway plans for their top career choices, including research into qualifications required and entry requirements needed. Students undertake a mock interview process in preparation for developing sound interview skills for future use. Students analyse and interpret current employment trends and future growth in their selected career choices.

### Pathways

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VCE Industry and Enterprise Units 1-4

## Elective Units

Students may select from the following semester-long elective Year 10 subjects or may apply to fast-track a VCE subject.

### Arts

#### Studio Arts (Raw Arts)

Students create artworks through drawing, painting, sculpture, digital art and digital photography. They use a range of raw media, materials and techniques to suit a variety of audiences and purposes. Their ideas demonstrate the development of personal style media concepts and community issues, emotions, feelings, observations (e.g. fact vs. fiction). Working individually and in groups, students design and produce an open learning challenge to create a folio. Develop a stronger connection to the design process of Investigation, Inspiration, Exploration, Creating, Annotation and Evaluation.

#### Pathways

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VCE Studio Art Units 1-4

#### Visual Communication Design

Students focus on developing their drawing skills for communicating information and messages in a visual way. Students learn and develop a range of skills including; use of technical and instrumental drawing techniques, rendering with a range of media and use of computer software programs to enhance final presentations. Students complete a range of set projects and negotiated design tasks. Projects undertaken include designing and creating in two-dimensional and three-dimensional formats in industrial and environmental design fields. This study focuses on learning about architecture and technical drawing. Students learn and further develop skills in the use of Adobe Photoshop and Illustrator and sketch up.

This subject is suited to students who may wish to pursue a career in the arts, in such areas as; architecture, drafting, graphic design, industrial design, illustration. It also assists in developing technical drawing skills for the building and engineering industries.

#### Pathways

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VCE Visual Communication Design.

## Health and Physical Education

### Health and Human Development

Students participate in a range of activities designed to help them understand and evaluate factors that shape identities, and analyse how individuals can influence the identities of others throughout the lifespan. Students begin with learning the dimensions of health and the influences on our health status. They then look closer at the stages of the lifespan and investigate development and health issues including diet and disease concerns associated with each stage. Students will also critique a range of health information sources and select the most reliable information for the specific requirements. This will allow students to take greater responsibility for their own health by exploring effective strategies that examine actions for health change. If time permits students will also look into complementary and alternative 'medicine' and health issues in developing countries and the various types of aid provided by many world agencies.

#### Pathways

VCE Health and Human Development Units 1-4

### Physical Education (Community Sport)

Students develop an understanding of planning, preparation and administration of a sporting competition. They study the roles of player, coach, administrator, referee and sports trainer. A detailed study of a community sporting club is carried out as well as sports injury prevention and treatment. Theory is supported by practical experience in a range of activities to be selected from swimming, team games and community sports.

### Physical Education (Improving Performance)

Students develop an understanding of the major systems of the body, which contribute to human movement and exercise performance. They also study methods of improving sporting performance such as fitness testing, training programs and biomechanics. All theory areas are supported by practical experience. Students carry out fitness testing, develop their own fitness program and participate in a variety of activities ranging from athletics, gymnastics and team sports.

#### Pathways

The study of Physical Education at Year 10 has been split into two distinctive subjects. Each subject covers different aspects of physical activity and both lead to VCE Physical Education Units 1-4. Neither subject is a pre-requisite for VCE, however it is strongly recommended that students who are interested in VCE Physical Education select one or both.

## Humanities

### Business Management & Economics

This is a new and engaging Humanities unit, more closely aligned to the Victorian Curriculum, which is replacing the former unit of Personal Accounting and Finance.

Students will be introduced to related areas of study involving the world of Economics and Business Studies.

Students describe how resources are allocated and distributed in the Australian economy and the way economic performance is measured. They provide explanations for variations in economic performance and standards of living within and between economies.

Students explain the importance of managing consumer and business financial risks and rewards and analyse the different strategies that may be used when making decisions. They explain the nature of innovation and why businesses need to create a competitive advantage. Students discuss ways that this may be achieved and the enterprising behaviours and capabilities that could be developed by individuals to assist the work and business environments.

Students analyse the reasons why and how the work environment is changing and discuss the implications this has for individuals, businesses and the economy. Students identify economics and business trends, explain relationships and make predictions. They generate alternative responses to familiar, unfamiliar and complex problems taking into account multiple perspectives, and using cost-benefit analysis and appropriate criteria to propose and justify a course of action.

Students analyse the intended and unintended effects of economic and business decisions and the potential consequences of alternative actions.

#### Pathways

VCE Accounting Units 1-4, VCE Business Management Units 1-4, VCE Economics Units 1-4.

## Environmental Geography

What is biodiversity? You will learn about this by examining the many different types of environments around the world. You will also investigate the way human activities have changed environments on a global scale around the world as well as in Australia, particularly in our local area. A large part of your work will be devoted to case studies; the Sevens Creek and a wetland environment. You will undertake fieldwork which means that you will go out on excursions during which, for example you will look at the effects of erosion and collect data to analyse and report on. This subject has aspects of both Science and Humanities.

#### Pathways

VCE Environmental Science Units 1-4, VCE Geography Units 1-4, VCE Outdoor and Environmental Studies Units 1-4.

## Legal Studies

In this unit students explore the operation of the legal system from a young person's perspective. Students suggest reasons why laws are needed in the community and investigate legal issues that are of concern to young people. They will investigate the two main sources of law – parliament and the courts.

Students will:

- Collect a folio of newspaper articles on court cases and distinguish between criminal and civil law.
- Identify the main courts in the court of hierarchy and prepare a chart summarising the different types of cases heard by different courts.
- Participate in a visit to a law court to observe the courtroom procedure and personnel.
- Examine the operation of the advisory trial and the jury system and consider factors that may disadvantage individuals in their dealing with the legal system.
- Undertake detailed study of the operation of the Children's Court and the rights of young people.
- Explore other ways of resolving disputes instead of going to court, and look at case studies in tenancy, employment and consumer law.
- Examine the process by parliament to make laws and conduct a role play of the legislative process to pass their own bill.
- Explain how citizens can influence government policy through participation in political parties; elections and membership of interest groups.
- Describe the election process in Australia and conduct a simulated election campaign.

### Pathways

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VCE Legal Studies Units 1-4.



## Languages other than English (LOTE)

Students may choose to continue their studies in LOTE (Japanese) from Year 9. Unlike other elective subjects, Japanese is studied for both semesters one and two.

### Japanese

Students interact to exchange information and opinions on topics related to the world of adolescence. They complete a range of communication tasks including listening, reading, writing and speaking and combine these with tasks that integrate intercultural understanding and language awareness. Students use a range of communicative tools and ICT applications in their research, including word processing, Internet research, Microsoft PowerPoint program and dictionary use. They employ strategies for broadening their language awareness and repertoire of script, structure and vocabulary. Studying a foreign language enables students to develop reflective, deep and creative thinking as well as engage in self-reflection. Students are exposed to the culture and wider civilization that surrounds them. They have opportunities to work in teams as well as develop their own personal learning strategies.

Note: If there are a small number of students who choose to enrol in Japanese, the college will enrol students in a distance education course through the Victorian School of Languages.

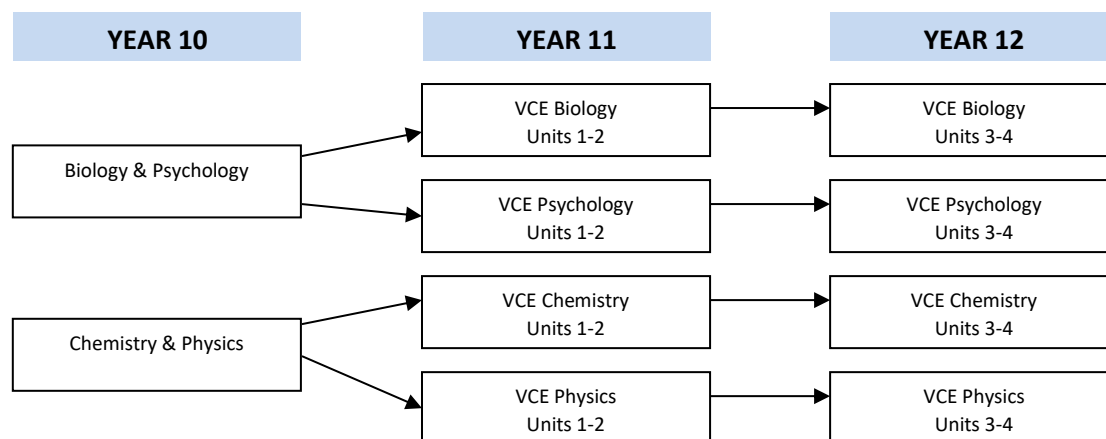
#### Pathways

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VCE LOTE – Japanese Units 1-4

## Science

### Science Pathway Map



## Biology and Psychology

An introduction to VCE Biology and VCE Psychology, this unit is in two parts. The Biology section introduces students to cells and cellular functions, with a particular emphasis on DNA, chromosomes and genes, and simple genetic inheritance. In the Psychology section, students investigate the definitions of Psychology and study the research methodology used and the many different specialist fields of Psychology. Students learn about the ethics that are mandated in psychological research by exploring famous psychological experiments. They also study the research methodology used in detail.

### Pathways

VCE Psychology Units 1-4, VCE Biology Units 1-4.

## Chemistry and Physics

This unit is an introduction to VCE Chemistry and Physics. It involves the study of the chemical behaviour of elements and compounds, atomic structure, the periodic table, radioactivity and chemical reactions. This unit also explores the relationship between force, mass and movement and the everyday uses of electromagnetism - motors, generators, speakers and telephones. This leads students into further studies at universities - biomedical, mechanical and chemical engineering or nursing or into a TAFE course - nursing, mechanics or manufacturing processes, to name a few.

### Pathways

VCE Chemistry Units 1-4, VCE Physics Units 1-4.

## General Science

In General Science, students will have the opportunity to choose from a range of topics to study and investigate. These may include a focus on different types of microorganisms and the diseases that can be caused by them; Forensic Science; the technology used in various electronics devices; feral species of plants and animals and their effect on the environment; petrochemicals and sustainability.

### Pathways

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This subject covers different aspects of science, and is useful for the study of VCE Science subjects; however, it is not a pre-requisite. It will open up lots of opportunities at TAFE and Universities in areas of Engineering, Microbiology, Food Science, Laboratory Techniques, related Health Care work and Medicine.

## Technology

### Food Studies

Students participate in a range of activities to enhance their understanding of nutrition, key foods, and healthy eating. This will require them to investigate and make judgments on food safety, preservation, preparation, presentation, and sensory perceptions that influence the creation of food solutions. Students investigate the influences on Australia's cuisine and our current food trends. They take a paddock to plate approach to the ingredients they use, as they explore sustainable farming practices, food miles and food waste and the implications this has for marketing and purchasing of a range of foods they currently consume.

#### Pathways

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This subject leads to VCE Food Studies Units 1-4

### Product Design and Technology (Wood)

Students are required to complete a Design Folio and produce a Coffee Table using a limited range of hand and power tools. Students will be expected to complete online safety certificates, work in an interactive workshop environment and comply with OH&S requirements to complete their product to a high standard. The Design Folio is a major assessment item.

#### Pathways

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VCE Product Design and Technology Units 1-4.

### Systems Engineering (Electronics and Robotics)

Students are required to complete a Design Folio and produce a simple electronic/robotic product using a limited range of hand and power tools. Students will be expected to complete online safety certificates, work in an interactive workshop environment and comply with OH&S requirements to complete their product to a high standard. The Design Folio is a major assessment item.

#### Pathways

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VCE Systems Technology - Robotics Units 1-4.

## VCE Subject Offerings

Students may apply to fast-track one of the following VCE subjects.

### Biology

Biology is the study of living things from familiar, complex multicellular organisms that live in the many different habitats of our biosphere to single-celled micro-organisms that live in seemingly inhospitable conditions. It is a study of the dynamic relationships between living things, their interdependence, their interactions with the non-living environment, and the processes that maintain life and ensure its continuity. Biology enables students to understand that despite the diverse ways of meeting the challenges of survival, all living things have many structural and functional characteristics in common.

#### **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 the transmission of biological information from generation to generation and impact on species diversity. They apply their understanding of chromosomes to explain meiosis and consider the relationship between genes, and the environment and factors influencing phenotypic expression. They explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. Students analyse asexual and sexual reproduction, including the use of cloning technologies. They study structural, physiological and behavioural adaptations that enhance an organism's survival. Students explore interdependences 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?**

In this unit, students investigate the workings of the cell from several perspectives. The cell is a dynamic system of interacting molecules that define life. An understanding of the workings of the cell enables an appreciation of both the capabilities and the limitations of living organisms, whether animal, plant, fungus or microorganism. Students also study the synthesis, structure and function of nucleic acids and proteins as key molecules in cellular processes.

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

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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.

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

A student practical investigation related to cellular processes and/or biological change and continuity over time is undertaken in either Unit 3 or Unit 4

#### **Pathways**

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The study of biology prepares students for continuing studies in bioscience and entry into the workforce in a wide range of careers, including those not normally thought of as depending on bioscience. Much of our economic activity is generated through advances in bioscience research, in environmental, medical and associated biotechnologies, and in parallel sciences such as bioinformatics

## Business Management

VCE Business Management examines the ways in which people at various levels within a business organisation manage resources to achieve the objectives of the organisation. Students develop an understanding of the complexity, challenges and rewards that come from business management and gain an insight into the various ways resources can be managed in small, medium and large-scale organisations.

### 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.

**Pathways**

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In studying VCE Business Management, students develop knowledge and skills that enhance their confidence and ability to participate effectively, as socially responsible and ethical members of the business community, and as informed citizens, consumers and investors.



## Chemistry

Chemistry is a key science in explaining the workings of our universe through an understanding of the properties and interaction of substances that make up matter. Most processes, from the formation of molecules in outer space to the complex biological interactions occurring in cells, can be described by chemical theories. Although there are no sharp boundaries between sciences such as chemistry, physics and biology, chemistry is used to explain natural phenomena at the molecular level, as well as create new materials such as medicines and polymers.

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

The development and use of materials for specific purposes is an important human endeavour. In this unit, students investigate the chemical 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.

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

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

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

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. Students compare and evaluate different chemical energy resources, including fossil fuels, biofuels, galvanic cells and fuel cells and analyse manufacturing processes with reference to factors that influence their reaction rates and extent.

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

The carbon atom has unique characteristics that explain the diversity and number of organic compounds that not only constitute living tissues but are also found in the fuels, foods, medicines and many of the materials we use in everyday life. In this unit, students investigate the structural features, bonding, typical reactions and uses of the major families of organic compounds, including those found in food. A student practical investigation related to energy and/or food is undertaken either in Unit 3 or Unit 4.

### **Pathways**

Chemistry permeates numerous fields of endeavour, including agriculture, art, biochemistry, dietetics, engineering, environmental studies, food, forensic science, forestry, horticulture, law, medicine, oceanography, pharmacy, sports science and winemaking.

## English

The study of English contributes to the development of literate individuals capable of critical and creative thinking, aesthetic appreciation and creativity. This study also develops students' ability to create and analyse texts, moving from interpretation to reflection and critical analysis.

Through engagement with texts from the contemporary world and from the past, and using texts from Australia and from other cultures, students studying English become confident, articulate and critically aware communicators and further develop a sense of themselves, their world and their place within it. English helps equip students for participation in a democratic society and the global community.

This study will build on the learning established through Victorian Curriculum English in the key discipline concepts of language, literature and literacy, and the language modes of listening, speaking, reading, viewing and writing.

### Unit 1

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

### Unit 2

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

### Unit 3

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

### Unit 4

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

### Pathways

The English course provides students with the opportunity to develop their oral and written communication skills. It enables students to address issues in a critical manner and develop and articulate their thoughts. A pass in English or Literature is a prerequisite for most tertiary courses and **is necessary for students to attain a VCE certificate**. Students may elect to study one or both of these studies.

## Food Studies

VCE Food Studies takes an interdisciplinary approach to the exploration of food, with an emphasis on extending food knowledge and skills and building individual pathways to health and wellbeing through the application of practical food skills. VCE Food Studies provides a framework for informed and confident food selection and food preparation within today's complex architecture of influences and choices.

### Unit 1: Food origins

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

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

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

### Unit 2: Food makers

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

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

### Unit 3: Food in daily life

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

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

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

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

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

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

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

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

#### **Pathways**

The study may provide a foundation for pathways to food science and technology, consumer science, home economics, childcare and education, community services and aged care, the hospitality and food manufacturing industries, and nutrition and health studies.

## Human Health & Development

Through the study of VCE Health and Human Development, students investigate health and human development in local, Australian and global communities.

### **Unit 1: Understanding health and wellbeing**

In this unit students identify personal perspectives and priorities relating to health and wellbeing, and enquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islanders. Students look at multiple dimensions of health and wellbeing, the complex interplay of influences on health and wellbeing and the indicators used to measure and evaluate health status. With a focus on youth, students consider their own health as individuals and as a cohort. They build health literacy through interpreting and using data, through investigating the role of food, and through extended inquiry into one youth health focus area.

### **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. Students enquire into the Australian healthcare system and extend their capacity to access and analyse health information. They investigate the challenges and opportunities presented by digital media and health technologies, and consider issues surrounding the use of health data and access to quality health care.

### **Unit 3: Australia's health in a globalised world**

Students look at 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. Area of Study 2 focuses on health promotion and improvements in population health over time. Students look at various public health approaches and the interdependence of different models as they research health improvements and evaluate successful programs. While the emphasis is on the Australian health system, the progression of change in public health approaches should be seen within a global context.

**Unit 4: Health and human development in a global context**

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. 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. Area of Study 2 looks at global action to improve health and wellbeing and human development, focusing on the United Nations' (UN's) Sustainable Development Goals (SDGs) and the work of the World Health Organization (WHO). Students also investigate the role of non-government organisations and Australia's overseas aid program. Students evaluate the effectiveness of health initiatives and programs in a global context and reflect on their capacity to take action.

**Pathways**

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Can lead to careers in nursing, psychology, community work and teaching.

## Legal Studies

VCE Legal Studies investigates the ways in which the law and the legal system relate to and serve individuals and the community. This knowledge is central to understanding the workings of contemporary Australian society.

Students develop an understanding of the complexity of the law and the legal system and the challenges faced by our law-makers and dispute resolution bodies. They investigate the workings of the Australian legal system and undertake comparisons with international structures and procedures. Students are encouraged to question these systems and develop informed judgments about their effectiveness, as well as consider reforms to the law and the legal system.

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

The law influences all aspects of society – at home, at work and in the wider community. Laws are used by society to preserve social cohesion and to ensure the protection of people from harm and from the infringement of their rights. These laws can be grouped according to their source and whether they are criminal or civil in nature. Following an overview of the law in general, this unit focuses on criminal law.

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

The civil law regulates the rights and responsibilities that exist between individuals, groups and organisations. If legal rights have been infringed, the aggrieved party may pursue legal action through the court system, through a tribunal, or by using one of the methods of dispute resolution. Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil law in society and how it affects them as individuals.

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

In this unit, students develop an understanding of the institutions that determine our laws, and their law-making powers and processes. They undertake an informed evaluation of the effectiveness of law-making bodies and examine the need for the law to keep up to date with changes in society.

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

The legal system provides mechanisms by which legal disputes of both a criminal and a civil nature can be resolved in a fair and just manner. Dispute resolution bodies such as courts and tribunals employ a range of means and processes that enables the resolution of legal disputes.

### **Pathways**

Legal Studies prepares students for further study in the areas of Law, Humanities, Arts, and social sciences. It can lead to employment in government, legal fields and associated areas. It is also recommended for those considering the Police Force.

## Languages Other Than English (LOTE) – Japanese

The study of a language other than English contributes to the overall education of students, most particularly in the area of communication, but also in the areas of cross-cultural understanding, intercultural learning, cognitive development, literacy and general knowledge. It provides access to the culture of communities, which use the language and promotes understanding of different attitudes and values within the wider Australian community and beyond.

Japanese is one of the most widely taught languages from the Asia-Pacific region in Australian schools. This recognises the close economic and cultural ties between the two countries. The language to be studied and assessed is modern standard Japanese in both written and spoken forms. Some dialect variations in pronunciation and accent are acceptable. Students should be familiar with informal and formal levels of language as prescribed in this syllabus. Hiragana and Katakana syllabaries and a prescribed number of Kanji (Chinese characters) will be studied.

### Unit 1

On completion of this unit, the student should be able to establish and maintain a spoken or written exchange related to personal areas of experience. Listen to, read and obtain information from spoken and written texts and produce a personal response to a text focusing on real or imaginary experience.

### Unit 2

On completion of this unit, the student should be able to participate in a spoken or written exchange related to making arrangements and completing transactions. Listen to, read, and extract and use information and ideas from spoken and written texts and give expression to real or imaginary experience in spoken or written form.

### Unit 3

On completion of this unit, the student should be able to express ideas through the production of original texts. Analyse and use information from spoken texts and be able to exchange information, opinions and experiences.

### Unit 4

On completion of this unit, the student should be able to analyse and use information from written texts and respond critically to spoken and written texts, which reflect aspects of the language and culture of Japanese-speaking communities.

Note: If there are a small number of students who choose to enrol in Japanese, the college will enrol students in a distance education course through the Victorian School of Languages.

### Pathways

The ability to communicate in another language, in conjunction with other skills, may provide opportunities for employment in the fields of interpreting, social services, ethnic affairs, the tourism and hospitality industries, international relations, the arts, commerce, technology, science, education.



## Mathematics

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

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

### Entry requirements

There are no prerequisites for entry to VM Numeracy, General Mathematics Units 1 and 2 or Mathematical Methods (CAS) Units 1 and 2. However, students attempting Mathematical Methods (CAS) are expected to have a sound background in number, algebra, function, and probability. Some additional preparatory work will be advisable for any student who is undertaking Mathematical Methods (CAS) Unit 2 without completing Mathematical Methods (CAS) Unit 1. Enrolment in Specialist Mathematics Units 3 and 4 assumes a current enrolment in, or previous completion of, Mathematical Methods (CAS) Units 3 and 4.

### Units 1 and 2: General Mathematics

The areas of study for General Mathematics Unit 1 and Unit 2 are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'.

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

### Units 1 and 2: Mathematical Methods (CAS)

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

### Units 3 and 4: General Mathematics

Further Mathematics consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. The Core comprises 'Data analysis' and 'Recursion and financial modelling'. The Applications

comprises two modules to be completed in their entirety, from a selection of four possible modules: 'Matrices', 'Networks and decision mathematics', 'Geometry and measurement' and 'Graphs and relations'. 'Data analysis' comprises 40 per cent of the content to be covered, 'Recursion and financial modelling' comprises 20 per cent of the content to be covered, and each selected module comprises 20 per cent of the content to be covered.

In particular, students are encouraged to use graphics or CAS calculators, computer algebra systems, spreadsheets or statistical software in 'Data analysis', dynamic geometry systems in 'Geometry and trigonometry' and graphics calculators, graphing packages or computer algebra systems both in the learning of new material and the application of this material in a variety of different contexts. The three applications modules are selected from: Number patterns, Geometry and trigonometry, Graphs and relations, Business-related mathematics, Networks and decision mathematics or Matrices.

### **Units 3 and 4: Mathematical Methods (CAS)**

Mathematical Methods Units 3 and 4 are completely prescribed and extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Units 3 and 4 consists of the areas of study 'Functions and graphs', 'Calculus', 'Algebra' and 'Probability and statistics', which must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation, anti-differentiation, integration and inference with and without the use of technology.

### **Units 1 and 2: Specialist Mathematics**

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

Mathematical Methods Units 1 and 2 and Specialist Mathematics Units 1 and 2, taken in conjunction, provide comprehensive preparation for Specialist Mathematics Units 3 and 4. The areas of study for Units 1 and 2 of Specialist Mathematics are 'Algebra and structure', 'Arithmetic and number', 'Discrete mathematics', 'Geometry, measurement and trigonometry', 'Graphs of linear and non-linear relations' and 'Statistics'.

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational, real and complex arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation.

### **Units 3 and 4: Specialist Mathematics**

Specialist Mathematics Units 3 and 4 consists of the areas of study: 'Functions and graphs', 'Algebra', 'Calculus', 'Vectors', 'Mechanics' and 'Probability and statistics'. The development of course content should highlight for the outcomes. In undertaking these units, students are

expected to be able to apply techniques, routines and processes involving rational, real and complex arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation, anti-differentiation and integration and inference with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation.

## Outdoor & Environmental Studies

VCE Outdoor and Environmental Studies is concerned with the ways humans interact with and relate to outdoor environments. 'Outdoor environments' include environments that have minimum influence from humans, although we also study those environments that have been subject to different levels of human intervention. The study enables students to make a critically informed comment on questions of environmental sustainability and to understand the importance of environmental health, particularly in local contexts.

VCE Outdoor and Environmental Studies provide students with the skills and knowledge to safely participate in activities in outdoor environments and to respect and value diverse environments. The blend of direct practical experience of outdoor environments with more theoretical ways of knowing enables informed understanding of human relationships with nature.

### Unit 1: Exploring outdoor experience

This unit examines some of the ways in which humans understand and relate to nature through experiences of outdoor environments. In this area of study, students focus on the individual's motivation for outdoor experiences and their personal responses to and experiences of outdoor environments. Students are able to participate in outdoor adventure activities such as surfing, mountain biking or abseiling/rockclimbing.

### Unit 2: Discovering outdoor environments

This unit focuses on the characteristics of outdoor environments and different ways of understanding them, as well as the human impacts on outdoor environments.

In this unit, students study nature's impact on humans, as well as the ecological, social and economic implications of human impact on outdoor environments. Students develop a clear understanding of the impact of technologies and changing human lifestyles on outdoor environments. Students are able to participate in outdoor adventure activities such as skiing, bushwalking or cycle touring.

### Unit 3: Relationships with outdoor environments

The focus of this unit is the ecological, historical and social contexts of relationships between humans and outdoor environments in Australia. Case studies of impacts on outdoor environments are examined in the context of the changing nature of human relationships with outdoor environments in Australia. Students are able to participate in outdoor adventure activities that support the theory involved in this unit such as SCUBA diving and bushwalking.

### Unit 4: Sustainable outdoor relationships

In this unit, students explore the sustainable use and management of outdoor environments. They examine the contemporary state of environments in Australia, consider the importance of healthy outdoor environments, and examine the issues in relation to the capacity of outdoor environments to support the future needs of the Australian population. Students examine conflicts over the use of outdoor environments including historical accounts such as the Franklin river campaign and contemporary conflicts such as the Murray-Darling basin.

Excursions and camps that are a part of these units cost approximately \$350.00 per unit.

**Pathways**

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Outdoor and Environmental Studies offers students a range of pathways and caters to those who wish to pursue further formal study in areas where interaction with outdoor environments is central, such as natural resource management, nature-based tourism, outdoor leading and guiding, environmental research and policy, education, and agriculture. Police and armed forces look favourably on recruits with post-school qualifications in Outdoor recreation.

## Physical Education

VCE Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between motor learning and psychological, biomechanical, physiological and sociological factors that influence physical performances, and participation in physical activity. The study of physical activity and sedentary behaviour is significant for the understanding of health, wellbeing and performance of people.

### **Unit 1: The human body in motion**

In this unit students investigate 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. Students evaluate the social, cultural and environmental influences on movement. They investigate 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**

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

### **Unit 3: Movement skills and energy for physical activity**

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply

biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport. Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

#### **Unit 4: Training to improve performance**

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

#### **Pathways**

The study prepares students for such fields as the health sciences, exercise science and education, as well as providing valuable knowledge and skills for participating in their own sporting and physical activity pursuits to develop as critical practitioners and lifelong learners.

## Physics

Physics is a theoretical and empirical science, which contributes to our understanding of the physical universe from the minute building blocks of matter to the unimaginably broad expanses of the Universe. This understanding has significance for the way we understand our place in the Universe.

### **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. The selection of an option enables students to pursue an area of interest through an investigation and using physics to justify a stance, response or solution to a contemporary societal issue or application related to the option. A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3.

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

This unit focuses on the ideas that underpin much of the technology found in areas such as communications, engineering, commerce and industry. Motion in one and two dimensions is introduced and applied to moving objects on Earth and in space. Circuit models are applied to further aspects of electricity and electronics, and the operation and use of photonic devices are introduced. The detailed studies offer examples of theoretical and practical applications of these technologies.

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

This unit focuses on the development and limitations of models in explaining physical phenomena. A field model of electromagnetism is applied to the generation of electricity, and the development of models that explain the complex interactions of light and matter are considered. The detailed studies provide examples of innovative technologies used for research and communication.

### **Pathways**

The knowledge gained through physics will enhance students' ability to be innovative and contribute to the intelligent and careful use of resources. This knowledge can be used, for example, in industrial, medical, engineering and technical applications.



## Product Design & Technology - Wood

Central to VCE Product Design and Technology is the Product design process, which provides a structure for students to develop effective design practice. The design process involves the identification of a real need that is then articulated in a design brief. The need is investigated and informed by research to aid the development of solutions that take the form of physical, three-dimensional functional products.

### 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. This unit examines different settings and takes students through the Product design process as they design for others.

### 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.

### Pathways

VCE Product Design and Technology can provide a pathway to a range of related fields such as industrial, product, interior and exhibition design, engineering, and fashion, furniture, jewellery, textile and ceramic design at both professional and vocational levels.

## Psychology

Psychology is the scientific study of mental processes and behaviour in humans. Biological, behavioural, cognitive and socio-cultural perspectives inform the way psychologists approach their research into the human condition.

### **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. Students examine the contribution that classical and contemporary research has made to the understandings of human perception and why individuals and groups behave in specific ways. Students investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted.

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

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

### **Unit 4: How is mental wellbeing supported and maintained?**

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 and non-rapid eye movement sleep across the life span. They also study the impact that changes to a person's sleep-wake cycle and sleep hygiene have on a person's psychological functioning and consider the contribution that classical and contemporary research has made to the understanding of sleep. Students consider ways in

which mental wellbeing may be defined and conceptualised, including social and emotional wellbeing as a multidimensional and holistic framework to wellbeing. They explore the concept of mental wellbeing as a continuum and apply a biopsychosocial approach, as a scientific model, to understand specific phobia. They explore how mental wellbeing can be supported by considering the importance of biopsychosocial protective factors and cultural determinants as integral to the wellbeing of Aboriginal and Torres Strait Islander peoples. A student-designed scientific investigation involving the generation of primary data related to mental processes and mental wellbeing is undertaken in either Unit 3 or Unit 4.

### **Pathways**

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The study of Psychology leads to opportunities in a range of careers that involve working with children, adults, families and communities in a variety of settings. These include academic and research institutions, management and human resources, and government, corporate and private enterprises. Fields of applied psychology include educational, environmental, forensic, health, sport and organisational psychology. Specialist fields of psychology include counselling and clinical contexts, as well as neuropsychology, social psychology and developmental psychology.

## Studio Arts (Art Making and Exhibiting)

VCE Art Making and Exhibiting (formerly Studio Arts) introduces students to the methods used to make artworks and how artworks are presented and exhibited. Students use inquiry learning to explore, develop and refine the use of materials, techniques and processes and to develop their knowledge and understanding of the ways artworks are made. They learn how art elements and art principles are used to create aesthetic qualities in artworks and how ideas are communicated through the use of visual language. Their knowledge and skills evolve through the experience of making and presenting their own artworks and through the viewing and analysis of artworks by other artists.

### 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. Students explore the different ways artists use materials, techniques and processes. The students' exploration and experimentation with materials and techniques stimulates ideas, inspires different ways of working and enables a broad understanding of the specific art forms. Their exploration and experimentation is documented in both visual and written form in a Visual Arts journal.

### 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 respond to a set theme and progressively develop their own ideas. 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. The planning and development of at least one finished artwork are documented in their Visual Arts journal. Students investigate how artists use art elements and art principles to develop aesthetic qualities and style in an artwork. Working in their Visual Arts journal they begin to discover and understand how each of the art elements and art principles can be combined to convey different emotions and expression in their own and others' artworks. They also explore how art elements and art principles create visual language in artworks. Students begin to understand how exhibitions are planned and designed and how spaces are organised for exhibitions. They also investigate the roles associated with the planning of exhibitions and how artworks are selected and displayed in specific spaces. This offers students the opportunity to engage with exhibitions, whether they are in galleries, museums, other exhibition spaces or site-specific spaces.

### 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. Students use their Visual Arts journal to record their art making. They record their research of artists, artworks and collected ideas and also document the iterative and interrelated aspects of art making to connect the inspirations and influences they have researched. The Visual Arts journal demonstrates the students' exploration of contexts, ideas and subject matter and their understanding of visual language. They also document their exploration of and experimentation with materials, techniques and processes. From the ideas documented in their Visual Arts journal, students plan and develop artworks. These artworks may be made at any stage during this unit, reflecting the students' own ideas and their developing style.

#### **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. The progress of individual student artworks is an important element of Unit 4, and throughout the unit students demonstrate their ability to communicate to others about their artworks. They articulate the development of subject matter, ideas, visual language, their choice of materials, their understanding of the inherent characteristics and properties of the material, their use of techniques and processes, and aesthetic qualities. Acting on their critique from Unit 3, students further develop their ideas and broaden their thinking to make new artworks. Students organise the presentation of their finished artworks. They make decisions on how their artworks will be displayed, the lighting they may use, and any other considerations they may need to present their artworks. Students also present a critique of their artworks and receive and reflect on feedback.

#### **Pathways**

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Studio Arts can lead to becoming an artist, illustrator and photographer. It can also lead to tertiary study in art, visual art, media and photography.

## Systems Engineering

VCE Systems Engineering involves the design, creation, operation and evaluation of integrated systems, which mediate and control many aspects of human experience. Integral to Systems Engineering is the identification and quantification of systems goals, the development of alternative system designs concepts, trial and error, design tradeoffs, selection and implementation of the best design, testing and verifying that the system is well built and integrated, and evaluating how well the completed system meets the intended goals. VCE Systems Engineering promotes innovative systems thinking and problem-solving skills through the Systems Engineering Process, which takes a project-management approach. It focuses on mechanical and electrotechnology engineered systems.

### **Unit 1: Introduction to mechanical systems**

This unit focuses on engineering fundamentals as the basis of understanding underlying principles and the building blocks that operate in simple to more complex mechanical devices.

### **Unit 2: Introduction to electrotechnology systems**

Students study fundamental electrotechnology engineering principles. Through the application of their knowledge and the Systems Engineering Process, students produce operational systems that may also include mechanical components. In addition, students conduct research and produce technical reports.

### **Unit 3: Integrated systems engineering and energy**

Students study the engineering principles that are used to explain the physical properties of integrated systems and how they work. Through the application of their knowledge, students design and plan an operational, mechanical electrotechnology integrated and controlled system. They learn about the technologies used to harness energy sources to provide power for engineered systems.

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

Students complete the production work and test and evaluate the integrated controlled system they designed in Unit 3. Students investigate new and emerging technologies, consider reasons for their development and analyse their impacts.

### **Pathways**

This study can be applied to a diverse range of engineering fields such as manufacturing, land, water, air and space transportation, automation, control technologies, mechanisms and mechatronics, electrotechnology, robotics, pneumatics, hydraulics, and energy management. It prepares students for careers in engineering, manufacturing and design through either a university or TAFE vocational study pathway, employment, apprenticeships and traineeships.

## Visual Communication Design

The Visual Communication Design study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Designers create and communicate through visual means to influence the everyday quality of life for individuals, communities and societies. Visual communication design relies on drawing as the primary component of visual language to support the conception and visualisation of ideas. Consequently, the study emphasises the importance of developing a variety of drawing skills to visualize thinking and to present potential solutions.

### **Unit 1: Introduction to visual communication design**

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to create messages, ideas and concepts both visible and tangible. Students practise their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts.

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

This unit focuses on the application of visual communication design knowledge, design thinking skills and drawing methods to create visual communications to meet specific purposes in designated design fields.

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

In this unit students gain an understanding of the process designers employ to structure their thinking and communicate ideas with clients, target audiences, other designers and specialists. Through practical investigation and analysis of existing visual communications, students gain insight into how the selection of methods, media, materials and the application of design elements and design principles, can create effective visual communications for specific audiences and purposes. They investigate and experiment with the use of manual and digital methods, media and materials to make informed decisions when selecting suitable approaches for the development of their own design ideas and concepts.

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

The focus of this unit is the development of design concepts and two final presentations of visual communications to meet the requirements of the brief completed in Unit 3. This involves applying the design process twice to meet each of the stated needs. Students refine and present two visual communications within the parameters of the brief. They reflect on the design process and the design decisions they took in the realisation of their ideas.

### **Pathways**

The study of Visual Communication Design can provide pathways to training and tertiary study in design and design-related studies, including graphic design, industrial and architectural design and communication design.

## VCE Vocational Major (VM)

### How is the VCE VM structured?

The VCE Vocational Major has specific subjects designed to prepare students for a vocational pathway. The subjects are VCE VM Literacy, VCE VM Numeracy, VCE VM Work Related Skills, and VCE VM Personal Development Skills (and 180 hours of VET at Certificate II level or above).

Each subject has four units, and each unit has a set of outcomes which are assessed through a range of learning activities and tasks.

Students will apply knowledge and skills in practical settings and also undertake community-based activities and projects that involve working in a team.

### What do I have to do to get my VCE VM?

Students must successfully finish at least 16 units, including:

- 3 VCE VM Literacy or VCE English units (including a Unit 3-4 sequence)
- 3 other Unit 3-4 sequences
- 2 VCE VM Numeracy or VCE Mathematics units
- 2 VCE VM Work Related Skills units
- 2 VCE VM Personal Development Skills units, and
- 2 VET credits at Certificate II level or above (180 hours)

Most students will undertake between 16-20 units over the two years.

You can also do other VCE subjects, and structured workplace learning.

### Who decides if I have satisfactorily completed a VCE or VCE VM unit?

The result of Satisfactory or Not Satisfactory is determined at a school level for each unit. This decision is based on the work submitted and must follow the VCAA, and school, rules and procedures.

### Can I combine VCE subjects with VCE VM subjects?

Yes. Students may access and gain credit for any VCE subject in addition to the mandatory requirements of the VCE VM.

### Can I participate in Structured Workplace Learning (SWL) or a School Based Apprenticeship or Traineeship (SBAT) as a part of the VCE VM?

Yes, SWL or an SBAT can be included in the VCE VM. Students can receive credit for time in the workplace via Structured Workplace Learning Recognition.



## VM – Literacy

Literacy empowers students to read, write, speak and listen in different contexts. Literacy enables students to understand the different ways in which knowledge and opinion are represented and developed in daily life in the 21st Century. The development of literacy in this study design is based upon applied learning principles, making strong connections between students' lives and their learning. By engaging with a wide range of content drawn from a range of local and global cultures, forms and genres, including First Nations Peoples' knowledge and voices, students learn how information can be shown through print, visual, oral, digital and multimodal representations.

Along with the literacy practices necessary for reading and interpreting meaning, it is important that students develop their capacity to respond to information. Listening, viewing, reading, speaking and writing are developed so that students can communicate effectively both in writing and orally. A further key part of literacy is that students develop their understanding of how written, visual and oral communication are designed to meet the demands of different audiences, purposes and contexts, including workplace, vocational and community contexts. This understanding helps students develop their own writing and oracy, so that they become confident in their use of language in a variety of settings.

### **Pathways**

VCE VM is designed to develop and extend pathways for young people. It may lead to undertaking further education and training at TAFE and employment including apprenticeships and traineeships.

## **VM - Numeracy**

VCE VM Numeracy is based on an applied learning approach to teaching, ensuring students feel empowered to make informed choices about the next stage of their lives through experiential learning and authentic learning experiences.

VCE Vocational Major Numeracy focuses 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 study allows students to explore the underpinning mathematical knowledge of number and quantity, measurement, shape, dimensions and directions, data and chance, the understanding and use of systems and processes, and mathematical relationships and thinking. 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.

The contexts are the starting point and the focus, and are framed in terms of personal, financial, civic, health, recreational and vocational classifications. These numeracies are developed using a problem-solving cycle with four components: formulating; acting on and using mathematics; evaluating and reflecting; and communicating and reporting.

### **Pathways**

VCE VM is designed to develop and extend pathways for young people. It may lead to undertaking further education and training at TAFE and employment including apprenticeships and traineeships.

## **VM – Personal Development Skills**

The VCE VM Personal Development Skills study focuses on helping students develop personal identity and individual pathways to optimal health and wellbeing. It begins with concepts of personal identity and the range of factors that contribute to an individual's perception of self. Students will investigate health in their community and play an active, participatory role in designing and implementing activities to improve community health and wellbeing.

Students will examine community participation and how people work together effectively to achieve shared goals. They will investigate different types of communities at a local, national, and global level. Students will look at active citizenship and they will investigate the barriers and enablers to problem solving within the community. Students understand different perspectives on issues affecting their community, they will also plan, implement and evaluate an active response to community need.

The study examines 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. Students participate in an extended project relating to a community issue. Students will identify environmental, cultural, economic and social issues affecting the community and select one for an extended community project. Students will reflect on how community awareness of their selected issue can be improved.

### **Pathways**

VCE VM is designed to develop and extend pathways for young people. It may lead to undertaking further education and training at TAFE and employment including apprenticeships and traineeships.

## VM – Work Related Skills

VCE VM Work Related Skills allows students to understand and apply concepts and terminology related to the workplace and further studies to understand the complex and rapidly changing world of work and workplace environments. It helps students understand and develop their skills, knowledge, capabilities and attributes as they relate to further education and employment, to develop effective communication skills to enable self-reflection and self-promotion and to practically apply their skills and knowledge.

This subject requires students to think about and investigate potential employment pathways, to develop a career action plan, to seek appropriate advice and feedback on planned career and further study objectives. Students are required to consider the distinction between essential employability skills, specialist, and technical work skills; to understand transferable skills and identify their personal skill and capabilities and promote them through development of a cover letter and resume and through mock interviews.

Students also learn about healthy, collaborative and productive workplaces, workplace relationships and investigate key areas relating to workplace relations, including pay conditions and dispute resolution. Students look at how teamwork and effective communication contribute to a healthy, collegiate workplace. Students also learn about promoting themselves and their skills by developing an extensive professional portfolio to use for further education and employment applications.

### **Pathways**

VCE VM is designed to develop and extend pathways for young people. It may lead to undertaking further education and training at TAFE and employment including apprenticeships and traineeships.

## VET Subjects on Offer in 2023

Vocational Education and Training (VET) is usually a two-year program combining general VCE/VCAL studies with accredited vocational education and training. It enables students to complete a nationally recognised vocational qualification (e.g. Certificate III in Sport and Recreation) at the same time as completing their VCE or VCAL. Important industry-specific skills and workplace skills are learnt through the VET program, and the students are usually required to complete work placements as a part of the program, which develops their skills even further.

VET is provided by many providers with our students attending either Shepparton, Seymour or Wangaratta to access courses. We offer Sports and Recreation, Agricultural Studies and Outdoor Recreation here at Euroa Secondary College.

The VET courses that students from ESC can access are listed below. There may be some later additions to this list, and some courses may be withdrawn, as a course running depends upon the total number of students enrolled.

### IMPORTANT GOTAFE APPLICATION INFORMATION

**EOI Opening Date:** Early August 2023

**Entry Requirements:** Cert II in Electrotechnology requires numeracy testing  
 Cert III in Equine requires a Self Assessment and access to Horses  
 Cert II in Plumbing requires numeracy testing  
 Cert II in Animal Care requires a Self Assessment  
 Cert III in Community Services  
 Cert III in Early Childhood Ed  
 Cert III in Education Support } Require Resume, School Report & Interview

### SUMMARY OF COURSES & MATERIAL FEES

The GOTAFE VET (Vocational Education & Training) Programs for Secondary School students held at Benalla, Seymour, Shepparton and Wangaratta, will be accepting enrolments from students aged 15-19. Students attend classes one day per week and are held over the course of two years. Online options are available for some courses. Some courses provide full completion of the certificate whilst others only provide partial completion. Structured Workplace Learning (SWL) recommendations are commensurate with the Victorian Curriculum & Assessment Authority (VCAA) recommendations for VCE VET programs. Please check the matrix below for course titles, locations, costs, delivery, outcomes, SWL and potential VCE/VCAL credit.

## VET Courses Available to ESC students in 2023

COURSE	CAMPUS	MATERIALS FEE	Qualification obtained in 2 years?	Structured Workplace Learning (SWL)**	Possible VCE credit
Certificate II in Agriculture (VCE VET)	ESC	TBC	Yes	Mandatory 40 hrs p.a.	1 x 10%
Certificate II in Animal Studies (VCE VET)	O	TBC	Yes	Mandatory 40 hrs p.a.	1 x 10%
Certificate II in Automotive Vocational Preparation (VCE VET)	W D	TBC	Yes	Strongly Recommended	1 x 10%
Certificate III in Make Up (VCE VET)	F D	TBC	Yes	Strongly Recommended	1 x 10%
Certificate II in Building and Construction (Carpentry) Preapprenticeship (VCE VET) <sup>3</sup>	D S A	TBC	No - Partial completion	Strongly Recommended	Block Credit Units 1-4
Certificate II in Community Services (VCE VET)	F	TBC	Yes	Strongly Recommended	Scored Assessment
Certificate III in Design Fundamentals	A D	TBC	No - Partial Completion	Strongly Recommended	Block Credit Units 1-4
Certificate III in Education Support	F D S	TBC	No - Partial Completion	Mandatory 50 hrs p.a.	Block Credit Units 1-4
Certificate II in Electrotechnology (Career Start) (VCE VET) <sup>2</sup>	F D	TBC	Yes	Strongly Recommended	1 x 10%
Certificate II in Engineering Studies (VCE VET)	F D	TBC	Yes	Strongly Recommended	Block Credit Units 1-4
Certificate II in Equine Studies (VCE VET)	O	TBC	Yes	Mandatory 40 hrs	Scored Assessment
Certificate III in Early Childhood Education and Care (Partial Completion)	F D S	TBC	No - Partial completion	Mandatory 120 hrs	Block Credit Units 1-4
Certificate II in Salon Assistant (VCE VET)	F D	TBC	Yes	Mandatory 40 hrs	Credit Unit 1&2 Level
Certificate III in Health Services Assistance & Certificate III in Allied Health Assistance (VCE VET) <sup>1</sup>	F D N S B	TBC	Yes	Mandatory 120 hrs	Scored Assessment
Certificate III in Information, Digital Media and Technology (VCE VET)	F T	TBC	No - Partial completion	Strongly Recommended	Scored Assessment
Certificate II in Kitchen Operations	F D S* 1 <sup>st</sup> Year Only	TBC	Yes	Strongly Recommended	Scored Assessment
Certificate II in Plumbing (Pre-Apprenticeship) <sup>3</sup>	W D	TBC	No - Partial completion	Strongly Recommended	Scored Assessment
Certificate III in Sport and Recreation	ESC	TBC	Yes	No	Scored Assessment
Certificate II in Outdoor Recreation	ESC	TBC	Yes	No	Credit Unit 1&2 Level
TBC - Certificate II in Hospitality	A D	TBC	TBC	TBC	TBC
TBC - Certificate III in Business (Online)	O	TBC	TBC	TBC	TBC

Code		Code		Code		Code	
D	Docker St, Wangaratta	F	Fryers St, Shepparton	N	NCN Health	1	Includes First Aid training
T	Tone Rd, Wangaratta	S	Seymour	O	Online with compulsory on-campus workshops	2	Includes CPR update
W	William Orr, Shepparton	B	Benalla	A	Archer St, Shepparton	3	Includes CI Card

If enrolling in a VET course through your school, GOTAFE will charge your school for tuition and materials charges. Each secondary school determines the amount they will pass on to you. The courses listed are offered with every intention that they will operate; however it may be necessary to cancel or postpone courses due to insufficient enrolments or funding changes. The course codes, titles and materials fees are correct at the time of publication and are subject to change without notification.

Please note: VFE block credit may be used in the calculation of the ATAR. Please refer to VTAC for further information.

**\*\*Please Note:** Structured Workplace Learning (SWL) recommendations & requirements are listed as per the 2017 VCAA SWL Summary and may be subject to change without notification. SWL is strongly recommended for all VET for Secondary Student Programs and mandatory where identified.

This training is delivered with Victorian and Commonwealth Government funding. GOTAFE is the trading name of Goulburn Ovens Institute of TAFE (RTO 3094)

Please contact ESC's VET coordinator Lorelle Healey if you would like more information.

### **Pathways**

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Students who undertake a VET course, may continue into further training at TAFE or look for an apprenticeship or traineeship in the industry.

## Certificate III in Sport and Recreation

This course develops the fundamental skills for students who seek a career in the sport and recreation industry. Students participate in a range of activities such as Provide First Aid, Work Health and Safety, Officiating, Assisting in conducting Sport & Recreation sessions and developing sport & recreation industry knowledge. Some units of Competence within this qualification may provide credit towards further course of study. This VET study will give you credit for one Unit 1, Unit 2, Unit 3 and Unit 4 VCE subject. This course is a 2 year course held on site at Euroa Secondary College. You must complete all requirements across the 2 years to gain the full qualification. In the second year of the course students can complete scored assessment and sit an end of year exam to contribute to the calculation of ATAR scores at the end of Year 12.

**Work Placement:** Students will participate in hands on learning experiences within class time at the local primary schools and sporting facilities within the Strathbogie Shire. It is encouraged that students undertake a work placement as part of the course to extend their experience and develop employer networks. Work placement is not mandatory but is encouraged. Students should plan to complete their work placement during designated work placements weeks and during school holidays.

**Compulsory dress requirement:** Students are expected to purchase the VET Sport & Recreation T-shirt (this is organised at the beginning of their studies) and there are optional track suit pants and spray jacket available for purchase. Students are expected to wear their uniform every session. You must wear appropriate sporting attire such as track suit pants/sports shorts and sports shoes. A broad brimmed hat must also be worn during terms 1 and 4.

**Career opportunities:** This VET program and associated further study could lead to a career as a: Sports Coach, Personal Trainer, Physical Education Teacher, Outdoor Education teacher, Recreation Manger, Gym/Fitness Instructor or Sports Administrator.

**More details:** Kim Saxon

**Delivery Mode:** Wednesdays at Euroa Secondary College

**Cost -** Approx. \$85 for workbooks & approx. \$130 for full Sport & Recreation uniform



## Certificate II in Agricultural Studies

This course provides an entry-level occupational outcome in agriculture as well as opportunity for further study in a Certificate III in Agriculture undertaken as a school-based apprenticeship. The qualification enables individuals to select a livestock production or cropping context as a job focus or, in the case of mixed farming enterprises, both. Job roles vary across different industry sectors and may include: assistant animal attendant or stockperson, assistant farm or station hand, assistant farm or station worker. Units of Competence within this qualification may provide credit towards further course of study. This VET study will give you a minimum credit for one Unit 1 and one Unit 2 VCE subject, and possibly one Unit 3 and one Unit 4 credit.

**Work Placement:** Students will participate in hands on learning experiences within class time. It is encouraged that students undertake a work placement as part of the course to extend their experience and develop employer networks. Work placement is not mandatory but is encouraged. Students should plan to complete their work placement during designated work placements weeks and during school holidays.

**Career opportunities:** Agriculture offers a range of pathways to working the land in various industries, including farming, natural resources, sustainability, and primary production. This course prepares you to work in the Agriculture or Livestock industries.

You may find work in the following contexts:

- Farm Management
- Farm Operations
- Agricultural Sciences
- Landcare
- Environmental Sciences
- Agronomy
- Agricultural Biotechnology
- Wool Classing
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**More details:** Lachlan Cooke

**Delivery Mode:** Wednesdays at Euroa Secondary College

**Cost** – Materials and cost of uniform - To Be Confirmed

## Project Ready – Certificate II in Active Volunteering

Project Ready is a hands-on life and work readiness program designed to help you get ready for your future world of work. This course develops the fundamental skills for students to help them become work and life ready. If students need some extra help choosing their career path, building self-confidence and gaining skills to successfully transition into the work place or into further training then Project Ready is for them.

Project Ready incorporates Certificate II in Active Volunteering, and is ideal for Year 10 students. It will give credit for up to two VCE units (Unit 1 and Unit 2), and give a launch pad into other training, as the units of competence within this course are recognised across a range of other community and social VET courses.

Project Ready supports students to:

- Build ‘groupness’; a group space where you feel comfortable to personally develop
- Discover your unique skills and strengths so you can plan for your career
- Understand possible training and work pathways through a range of career development and industry engagement activities
- Build resilience through personal development activities, volunteering and community involvement Improve your communication skills
- Develop work readiness skills, such as the job application process
- Learn enterprise and entrepreneurial skills
- Know your rights and responsibilities around workplace safety
- Source work placement opportunities

**Work Placement:** Students will participate in hands on learning experiences within class time at businesses within the Strathbogie Shire. It is encouraged that students undertake a work placement as part of the course to extend their experience and develop employer networks. Work placement is not mandatory but is strongly encouraged. Students should plan to complete their work placement during designated work placements weeks and during school holidays.

**Compulsory dress requirement:** Students are expected to wear their uniform every session. A broad brimmed hat must also be worn during terms 1 and 4.

**Career opportunities:** This VET program and associated further study could lead to a career as a: Personal Care assistant, Support worker, Home Helper, Personal Care Giver, Aged Care Worker, Night Community Patrol Workers, Kindergarten Assistant, Social Worker, Community Services officer.

**More details:**

**Delivery Mode:** Wednesdays at Euroa Secondary College

**Cost -** Approx. \$85 for workbooks