Senior Handbook

2027

Murrayville Community College

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About this Senior Course Subject Information Handbook

Your Subject Information Handbook is designed to provide you with information about the VCE, VET, VCE-VM and VPC units being offered at Murrayville Community College. As students move into higher year levels in the College they have greater say over the program they study, and are asked to make more decisions which impact on their future. In addition, the subjects students are asked to select from are becoming more specific and specialized. While the College staff will provide assistance and guidelines, the responsibility for subject selection is increasingly with the students. This Handbook should be seen as part of the information gathering process for you and should be considered by you in conjunction with the Career Aptitude Testing and conversations with your parents, staff and others in higher education and industry. This Subject Information Booklet is divided into a number of sections to assist students in selecting the most appropriate course of study for them for their final years of schooling.

Section1: Selecting your VCE Subjects at Murrayville Community College.

Section 2:

A. What do students need to get their VCE certificate, and an ATAR?
B. **What do students need to get their VET certificate?**
C. **What do students need to do to get their VCE certificate with a Vocational Major (VCE-VM)?**
D. **What do students need to do to get their Victorian Pathway Certificate (VPC)?**

Section 3: Possible career paths from specific subjects.

Section 4: Overview of VCE Studies offered at Murrayville Community College.
The description of units in this section of the Handbook provide you with a limited overview of the subject and a brief introduction to the content.

Section 5: Explanation of the content of VCE subjects.
The unit descriptions in this section of the Handbook provides you with a general description as well as lists of Assessment Tasks. Considerations for career paths and skills required are also included.

Section 1: Selecting your VCE Subjects at Murrayville Community College.

Some suggestions for subject selection:

- Select subjects you are interested in, have demonstrated some abilities in, and are related to a particular career pathway.
- If you are unsure of your career path select subjects you are interested in, and subjects which will keep your options open for you.
- If you are unsure of your career possibilities, refer to the Career Aptitude Test you have completed. Retake the test if you like and discuss the results with College staff, your parents, careers advisors, people in industries or the University / TAFE 'Office of Prospective Students."

  Remember it is always good to work towards a target, however, it is ok to keep your options open while you are investigating the possibilities;

- Don't select subjects because of friends;
- Don't select subjects on perceptions of who the teacher will be;
- Do select subjects you are good at, or that you enjoy;
- If you are unsure, do ask questions.

This is a time for you to accept more responsibility for your program of studies.

If you do not know, ask.

There is no such thing as a silly question.

Section 2:

A. What do students need to get their VCE certificate, and an ATAR?

The Victorian Curriculum and Assessment Authority (VCAA) set out certain types of units you must complete to attain the VCE certificate. **To obtain your VCE**, you must satisfactorily complete 16 units of study. This is the minimum. Eight of these 16 units may be from the VCE VET Studies. With regard to **the number of units studied**, at Murrayville Community College the following applies:

- Year 11 students are required to undertake a minimum of 10 units. That is 5 units of study in Semester 1 and 5 units of study in Semester 2. This may consist of VCE Units or VET Units;
- Year 12 students are required to undertake a minimum of 10 units. That is 5 sequences of Units 3 & 4.

In addition to the number of units studied there are a number of **other requirements** for students to complete their VCE Certificate.

- Students need to complete an approved combination involving at least 3 units of **English**. This may include:
- English Units 1-4;
- English Literature Units 1-4.
- Students must satisfactorily complete a **sequence of Units 3 & 4** in three studies in addition to the Units 3 & 4 sequence in English. These may be in VET studies at the appropriate level.

B. What do students need to get their VET certificate?

VET (Vocational Education & Training) is 'job ready training' designed for people whose focus is obtaining skills for the workforce.

Students value the VET in the VCE program because it:

- Allows students to combine general and vocational studies which, for many, provides a practical focus;
- Allows students to gain additional 'credit' on University ATAR scores and TAFE entry;
- Gives students direct experience of business and industry, which employers value in selection.

Employers value the VET in the VCE program because it:

- Contributes to the development of industry and work related skills for students;
- Provides students with a practical and focused introduction to workplace requirements;
- Enables employers to use the program for selection purposes;
- Enables industry to influence educational programs in schools;
- Provides useful training and supervisory experience for existing employees.

Successful completion of a VET in the VCE program provides students with:

- Two qualifications: a Victorian Certificate of Education (VCE) or Victorian Certificate of Applied Learning (VCAL) issued by the Victorian Curriculum and Assessment Authority and a VET Certificate issued by a Registered Training Organisation (RTO);
- Two Statements of Results issued by the Victorian Curriculum and Assessment Authority giving details of units completed in the VCE and modules/units of competence completed in the VET qualification;
- Can improve the student's Year 12 score and enable improved access to further education;
- The ability to articulate into further vocational education and training courses;
- Workplace experience, including structured workplace training.

Delivery of a VET program is undertaken by a Registered Training Organisation (RTO). These include TAFE institutes, private providers or schools.
VET is accessible to all students, undertaking the Victorian Certificate of Education (**VCE**), however, VET is a requirement for students undertaking the Victorian Certificate of Applied Learning (**VCAL**).
VET involves an increased amount of practical work, and a structured work placement. VET Agriculture is described as **non-scored.** This means that, rather than complete an examination, students are to demonstrate achievement in a series of competencies. If the certificate is completed students are awarded additional points towards their ATAR based on 10% of their best four graded (or scored) subjects (including English).

Summary of VET in the VCE:

Area of Study	Level of Study	Scored / Non-Scored Assessment
Agriculture	Certificate II	Non-Scored

All workplaces are by negotiation with local employers, and MUST be in a local area or accessible to College staff as Work Place Assessors.

Time Commitment
Because of the time commitment of VET, it is College policy to provide students with early access to VET. It is strongly recommended that VCE students have completed all VET before commencing Year 12. VET can be completed by VCAL students in Year 12.

Parents and students should be aware that a VET program may involve a commitment out of normal school hours for work placement and to complete short training modules.

The school will provide student information and induction to each student on enrolment for a course. This will include:

- *student selection, enrolment and induction/orientation procedures*
- *course information, including content and vocational outcomes*
- *provision for language, literacy and numeracy assistance*
- *student support, welfare and guidance services*
- *flexible learning and assessment procedures*
- *appeals and complaints procedures*
- *disciplinary procedures*
- *staff responsibilities for access and equity*
- *recognition of prior learning (RPL) arrangements*
- *recognition of AQF qualifications and statements of attainment issued by other RTOs.*

C. The VCE with a Vocational Major
The VCE-Vocational Major (VCE-VM) is an alternative option for students in Years 11 and 12, especially those completing a school based apprenticeship (SBA).
Like the VCE the VCE-VM is a recognised senior qualification. Unlike the VCE which is widely used by students as a pathway to university, the VCE-VM is more for students who are likely to be interested in going on to training at TAFE, doing an apprenticeship, or getting a job after completing Year 12. The Victorian VCE-VM caters for students who are seeking a flexible and hands-on alternative to an academic course.

Note: Students wanting to study at university are advised to undertake VCE studies.

The VCE-VM's flexibility enables students to design a study program that suits their interests and learning needs. To be eligible to receive the VCE-VM students must complete a minimum of 16 units, including:

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

A certificate and statement of results will be issued to students who successfully complete their VCE-VM. Assessment is progressive and students must satisfactorily demonstrate that they are competent in a number of areas.

D. Victorian Pathways Certificate (VPC)
The Victorian Pathways Certificate (VPC) is a foundation secondary qualification designed for students who would benefit from an individualised program at a more accessible level than the VCE or VCE VM. This program will not result in an ATAR and is not a recognized pathway to university.

VPC requirements
You must study at least 12 units, including:

- At least 2 units of literacy (VCE English, VM Literacy or VPC Literacy)
- At least 2 units of numeracy (VCE Mathematics, VM Numeracy or VPC Numeracy)
- At least 2 units of Work related skills (VM or VPC level)
- At least 2 units of Personal development skills (VM or VPC level)

Choosing a Program

Step 1 : Identify your interests, abilities and strengths and link these with appropriate work/career choices.
Step 2 : Consider the Vocational Education programs that the College offers and get some ideas about which options you are most interested in.
Step 3 : Identify which English and Maths level you want to study.

Please Note:
You will be asked to attend an individual course selection interview. If you are unsure about some choices we will help you choose a suitable program.

Recognising Prior Studies

Prior studies in the VCE or at a TAFE or further education provider may be acknowledged and credit transfer is possible (this helps make up the ten credits needed for the award of a certificate, so you may be awarded the certificate in less than one year).
Decisions relating to the award of credit for recognised prior learning rest with the College.

VCE and VCE-VM Credit Transfer

VCE subjects can give credits towards both the VPC and VM. However, credits do not transfer from VPC or VM to satisfy the VCE requirements..

Section 3: Possible career paths from specific subjects.

Each subject has suggested career outcomes at the bottom of the page. If you require more information, or wish to obtain further details about a subject or a career, ask your teachers or the Careers Coordinator.

Section 4 : Overview of VCE Studies offered at Murrayville Community College

Compulsory Subject for ALL VCE students

English (or equivalent)
is the study of texts including novels, plays, short stories, poetry, film and media texts. Students respond orally and in writing to a range of issues.

VCE Subjects – 2027

Accounting explores and applies the financial recording, reporting, analysis and decision making systems and processes of a sole proprietor trading business. Students study the theoretical aspects of accounting and practically apply these principles. They collect, record, report, analyse, apply, evaluate and discuss accounting information using both manual and ICT based methods.

Agricultural and Horticultural Studies allows students to develop and apply theoretical knowledge and skills to real world business and practices. They apply their acquired knowledge and skills to design, develop and manage an agricultural or a horticultural project. It complements the skills focus of competency training available through Vocational Education and Training agriculture and horticulture certificates.

Art focuses on encouraging artistic development through personal and independent exploration. Students develop ideas and personal concepts, and refine skills and techniques in art making. Students explore art and society, artistic identity and develop analytical skills through the interpretation of specific artworks and the use of analytical frameworks.
Unit 1 explores materials, techniques and working methods.
Unit 2 focuses on selected media.
In **Units 3 & 4** students present a broad and innovative body of work as well as undertaking art interpretation, debating and criticism of ideas and issues in art.

Biology is the study of living organisms and their interaction with their environment.
Unit 1 examines cells and organisms and how they function.
Unit 2 focuses on how organisms adapt to and interact with their environment.
Unit 3 examines the activities occurring within cells, and how organisms protect themselves against disease and infection.
Unit 4 focuses on genetics and evolution.

Business Management explores the key processes involved with managing businesses effectively and efficiently.
Unit 1 : Planning a business
Unit 2 : Establishing a business
Unit 3 : Managing a business
Unit 4 : Transforming a business

Chemistry is the study of chemical, chemical processes and chemical reactions.
Unit 1 focuses on the periodic table and properties of materials.
Unit 2 focuses on environmental chemistry related to water and the atmosphere.
Units 3 and 4 examine large-scale industrial production of some chemicals and the work of chemists, and the use of energy in non-living and living systems, and the properties of elements in the periodic table.

Computing is the study of either Data Analytics or Software Development.
Units 1 & 2 : Applied Computing focuses on creating digital solutions to meet specific needs.
Units 3 & 4 : Data Analytics examines how data is stored, retrieved, used, displayed and secured.
Units 3 & 4 : Software Development allows students to develop software using programming language to meet the needs of individuals and organisations.

Food Studies enables students to:
- develop as informed, discerning and capable food citizens
- build practical food skills in the planning, preparation, evaluation and enjoyment of food, including the principles and practices that ensure the safety of food
- apply principles of nutrition, food science and sensory evaluation to food planning and preparation
- extend understanding of food origins, cultures, customs and behaviours

Geography is the study of places and the ways natural and human forces produce change.
Unit 1 investigates hazards and disasters.
Unit 2 tourism.
Unit 3 changing the land.
Unit 4 human population.

Health and Human Development is the study of factors which contribute to the wellbeing of individuals, families and communities.
Units 1 & 2 will focus on Adolescence and Families.
Units 3 & 4 look at the nutrition within Australia's health and an international perspective on personal development and health.

History is the study of people, events and places over time.
Within **Units 1 & 2** students examine Twentieth Century History before and after 1945.
In Units **3 & 4** students can study either Australian History, or Revolutions.

Legal Studies examines the institutions and principles which are essential to Australia's legal system.
Unit 1 focuses on guilt and liability
Unit 2 focuses on sanctions, remedies and rights
Unit 3 focuses on rights and justice
Unit 4 focuses on people and the law

Mathematics –

Foundation Mathematics is the study of practical contexts in maths relating to everyday life, recreation, work and study.

Further Mathematics is the study of Mathematics with the focus on Statistics and Data (Core), Trigonometry, Graphs and Relationships, and Business Mathematics. Only available at Units 3 and 4.

General Mathematics provides a general study of Maths intended to accommodate a range of student abilities and interests. Topics include, Statistics, Arithmetic, Functions and Graphs, Algebra, Geometry, Trigonometry.

Mathematical Methods is the study of probability, calculus and trigonometry with the aim of giving students the background for further studies in Science and Mathematics. This can be studied as Units 1-4.

Specialist Mathematics is the study of Mathematics which aims to extend the students and materials beyond that of General or Further Mathematics. This is a high level of Mathematical study.

Outdoor and Environmental Studies is the study of how humans understand and relate to nature in the context of outdoor environments.
Units 1 & 2 focus on historical and recent issues relating to human participation in the natural environment.
Units 3 & 4 include a study of conservation within the natural environment.

...cont

Physical Education study is designed to enable students to understand the social, environmental and biological factors that influence participation in physical activity; analyse the processes associated with skill development in the performance of physical activity; examine the relationships between social, environmental and biological influences on participation in physical activity; develop a critical perspective on physical activity; use practical activity to enhance the theoretical understanding of physical performance; use correct terminology when explaining theoretical and practical concepts.
Unit 1 looks at learning and improving skill.
Unit 2 examines the active body.
Unit 3 studies physiological and participatory perspective of physical activity.
Unit 4 is on enhancing physical performance.

Physics is the science of working with the interaction and properties of matter and energy.
Unit 1 looks at light, heating and cooling, radioactivity and nuclear energy.
Unit 2 examines movement and electricity.
Unit 3 looks at sound, power and electronic systems.
Unit 4 focuses on motion, gravity and structures.

Product, Design and Technology - students assume the role of a designer-maker and develop knowledge and skills to produce effective and creative responses to design challenges.
Unit 1 is on design modification and production.
Unit 2 studies collaborative design.
Unit 3 focuses on design, technological innovation and manufacture.
Unit 4 focuses on product development, evaluation and promotion.

Psychology is the scientific study of thoughts, feelings and behaviour.
Unit 1 explores the behaviour of people in groups.
Unit 2 examines the behaviour of individuals while studying the major regions of the brain and their function.
Unit 3 students study the nervous system, in particular the brain and the spinal chord, exploring visual sensation and perception.
In **Unit 4** students study memory and look at how we remember and why we forget.

Sociology focuses on the study of human behaviour and social interaction to understand how societies are organised, develop and change. There is no single sociological perspective, rather, there are several theories that offer different ways of understanding human society. Sociologists use these theories and frameworks in a complementary way to attempt to objectively examine social issues and explain concepts. In VCE Sociology students examine key theories regarding family, deviance, ethnicity, community and social movements.

Studio Art aims to develop the ability to establish effective art practices through the application of a design process and the production of a cohesive folio of artworks. Students also explore artworks and artists from different times and locations through Units 1-4.
Unit 1 focuses on using sources of inspiration and ideas as the basis for artworks, exploring a wide range of materials and techniques.
In **Unit 2** students use a design process to produce artworks and develop skills in visual analysis.
In **Unit 3** students produce a range of potential solutions in art using a design brief. They also explore professional art practices and styles.
In **Unit 4** students produce a cohesive folio of finished artworks as well as study art industry issues.

Systems Engineering promotes innovative systems thinking and problem-solving skills through the application of the systems engineering process. It is based on integrated mechanical and electrotechnological engineered systems, and provides opportunities for students to learn about and engage with systems from a practical and purposeful perspective.

Visual Communications and Design is the study of the vocabulary and grammar of visual communication, which includes an understanding of, and application of, drawing and drawing conventions, design elements, principles and design process in visual communication.
Unit 1 focuses on visual communication.
Unit 2 focuses on communication in context.
Unit 3 focuses on visual communication practices.
Unit 4 focuses on designing to a brief.

SAMPLE VCE PATHWAYS

ARTS/HUMANITIES PATHWAY

Compulsory Units	Suggested units	Other Units
English 1 or EAL 1 and/or Literature 1	Select from: 20th Century History 1-2 Australian History 3-4 History Revolutions 3-4 Geography 1- 4 Business Management 1-4 Politics 1- 4	Examples: Other units which interest you such as Food Studies, Studio Arts and Psychology.
English 2 or EAL 2 and/or Literature 2	Legal Studies 1-4 Sociology 1-4	
English 3 or EAL 3 and/or Literature 3	Units from Maths Units from the Sciences Selecting other units Units from the Arts & Technology (Design Tech/Studio Art)	Selecting other units may depend on which direction you wish to take after completing VCE.
English 4 or EAL 4 and/or Literature 4		

THIS PATHWAY MAY LEAD TO:

Employment	University	TAFE	Careers Manager
Limited opportunities for students seeking employment directly from VCE	**Bachelor degrees in:** Arts, Humanities VCE Social Science, Family Studies, Social Work, Public Relations, Teaching, Education Arts/Media You can major in Philosophy, Politics Humanities & Social Science Professional Writing Journalism History & Geography	**Diplomas & Certificates in:** Social & Community Services	Tertiary Entry Needs Prerequisites Recommended Units Any special requirements

MATHS/SCIENCE/ENGINEERING PATHWAY

Compulsory Units	Suggested units			
English 1 or EAL 1 and/or Literature 1	Physics 1	Methods 1	General Maths 1	Chemistry 1
English 2 or EAL 2 and/or Literature 2	Physics 2	Methods 2	General Maths 2	Chemistry 2
English 3 or EAL 3 and/or Literature 3	Physics 3	Methods 3	Specialist Maths 3 or Further Maths 3	Chemistry 3
English 4 or EAL 4 and/or Literature 4	Physics 4	Methods 4	Specialist Maths 4 or Further Maths 4	Chemistry 4

THIS PATHWAY MAY LEAD TO:

Employment	University	TAFE	Careers Manager
Limited opportunities for students seeking employment directly from VCE Some traineeships are available- Lab Tech	**Bachelor degrees in:** Architecture, Engineering, Science (Applied, Physical, Chemical, Biological), Education, Manufacturing Project Management	**Diplomas & Certificates in:** Engineering Applied Science	Tertiary Entry Needs Prerequisites Recommended Units Any special requirements

HEALTH SCIENCES PATHWAY

Compulsory Units	Suggested units			Other Units
English 1 or EAL 1 and /or Literature 1	Chemistry 1 and/or Biology 1	Health & Human Dev 1 and/or Psychology 1	General Maths 1	Selecting other units may depend on which direction you wish to take after completing VCE.
English 1 or EAL 2 and /or Literature 2	Chemistry 2 and/or Biology 2	Health & Human Dev 2 and/or Psychology 2	General Maths 2	
English 1 or EAL 3 and /or Literature 3	Chemistry 3 and/or Biology 3	Health & Human Dev 3 and/or Psychology 3	Further Maths 3	
English 4 or EAL 4 and /or Literature 4	Chemistry 4 and/or Biology 4	Health & Human Dev 4 and/or Psychology 4	Further Maths 4	

THIS PATHWAY MAY LEAD TO:

Employment	University	TAFE	Careers Manager
Limited opportunities for students seeking employment directly from VCE Some traineeships are available	**Bachelor degrees in:** Advanced Certificates Child Care, Chiropractic, Nursing, Physical Education Teaching, Paramedics, Occupational Therapy Public Health Human Movement	**Associate Diplomas, Certificates in:** Childcare Occupational Studies Hospitality Studies Tourism Events Management Social & Community Services Health Sciences	Tertiary Entry Needs Prerequisites Recommended Units Any special requirements

SAMPLE VCAL PATHWAY

Sample VCE—Vocational Major Program					
	Industry Pathway studies Agriculture/Retail/Childcare/Automotive				Other studies
Year 10	At least one VCE subject Units 1 & 2	AusVELS Level 10			
Year 11	VCE-VET/SBA Agriculture/Retail/ Childcare/ Auto Units 1 & 2	Year 12 VCE subject of interest. Units 3 &4	Literacy English Language Units 1 & 2 *Or* VM Literacy Units 1 & 2	Numeracy Foundation Maths Units 1 & 2 *Or* VM Numeracy Units 1 & 2	Personal Development Skills Unit 2 Work Related Skills Unit 2
Year 12	VCE-VET/SBA in Agriculture/Retail/ Childcare/ Auto Units 3 & 4	School Based Apprenticeship (SBA) Workplace day	Literacy VM Literacy Units 3 & 4	Numeracy Foundation Maths Units 3 & 4 Or VM Numeracy Units 3 & 4	Personal Development Skills Unit 3 or 4 Work Related Skills Unit 3 or 4

VCE Subjects – 2027

Compulsory Units

English (or equivalent)

Elective VCE Subjects – 2027

Accounting

Agricultural & Horticultural Studies

Art

Art Making and Exhibiting

Biology

Business Management

Chemistry

Computing

Geography

Food Studies

Health and Human Development

History

Legal Studies

Mathematics - Foundation Mathematics

Mathematics - Further Mathematics

Mathematics - General

Mathematics - Methods

Mathematics - Specialist

Outdoor and Environmental Studies

Physical Education

Physics

Product, Design and Technology

Psychology

Sociology

Systems Engineering

Visual Communications and Design

GLOSSARY OF TERMS

Acronyms

ATAR	Australian Tertiary Admission Rank
DECV	Distance Education Centre of Victoria
ESL	English as a Second Language
GA	General Assessment
GAT	General Achievement Test
LOTE	Language(s) Other Than English
NA	Not Assessed
RTO	Registered Training Organisation
SAC	School-assessed Coursework
SAT	School-assessed Task
SATAC	South Australian Tertiary Admissions Centre
TAFE	Technical and Further Education
UG	Ungraded
VASS	Victorian Assessment Software System
VCAA	Victorian Curriculum and Assessment Authority
VCE	Victorian Certificate of Education
VCE VET	Approved VET program providing credit in the VCE
VCE VM	VCE Vocational Major
VET	Vocational Education and Training
VTAC	Victorian Tertiary Admissions Centre

Glossary

ACCREDITATION PERIOD – the period during which a study is accredited as a VCE study.

ASSESSING SCHOOL– the school responsible for providing the assessment (through VASS) for one or more units for a student. The assessing school is usually, but not always, the home school. A student may have one or more assessing schools.

ASSESSMENT PLAN - a set of tasks relating to the assessment of units of competence/modules undertaken in the Unit 3 and 4 sequence of a scored VCE VET program.

AUSTRALIAN TERTIARY ADMISSION RANK (ATAR) - the overall ranking on a scale of zero to 100 that a student receives, based on his or her *Study Scores*. The ATAR is calculated by VTAC and used by universities and TAFE institutes to select students for courses. Formerly known as Equivalent National Tertiary Entrance Rank (ENTER).

AUTHENTICATION - the process of ensuring that the work submitted by students for assessment is their own.

COURSEWORK AUDIT - as part of an ongoing monitoring and quality assurance program by the VCAA, samples of School-assessed Coursework material are collected from schools each semester. The work collected is used to monitor schools' administration of School-assessed Coursework.

EXAMINATIONS - external assessments set and marked by the VCAA. All studies have at least one examination. Most written examinations are held in November, with a small number in June. Performance examinations and examinations: oral component are held in October and November.

GENERAL ACHIEVEMENT TEST (GAT) - a test of knowledge and skills in writing, mathematics, science and technology, humanities and social sciences and the arts. It is done by all students doing a Unit 3 and 4 sequence and used by the VCAA to check that schools are marking School-assessed Tasks to the same standard, as part of the statistical moderation of School-assessed Coursework and as a quality assurance check on the VCAA's marking of examinations and School-assessed Tasks. It does not count towards students' VCE graduation, but students' GAT results are reported to them with their *Statement of Results*.

GRADED ASSESSMENT - all VCE studies have three Graded Assessments for each Unit 3 and 4 sequence except for scored VCE VET programs, which have two.

MODULE - a distinct component of the vocational training curriculum, comprising specified learning outcomes, assessment criteria and other information to support the delivery of training and conduct of assessment.

NOMINAL HOURS - the proposed hours required for the delivery and assessment of vocational training as determined by the Office of Training and Tertiary Education.

OUTCOMES - what a student must know, or be able to do, in order to satisfactorily complete a unit as specified in the study design.

GLOSSARY OF TERMS (continued)

PRINCIPAL - refers to principals, college principals of multi-campus schools, headmasters, headmistresses and directors.

REGISTERED TRAINING ORGANISATION (RTO) - an organization which is registered and approved to deliver Vocational Education and Training (VET) programs within a defined Scope of Registration.

SATISFACTORY COMPLETION - the school decision that a student has demonstrated achievement of the *outcomes* for a unit. Students receive an 'S' for the satisfactory completion of a unit. If they do not satisfactorily complete a unit, they receive an 'N' for it. Students qualify for the VCE when they satisfy units which meet the program requirements set out in Section 5.

SCHOOL-ASSESSED COURSEWORK - a school-based assessment which is reported as a grade for either a Unit 3 and 4 sequence or Unit 3 and Unit 4 individually. School-assessed Coursework consists of a set of assessment tasks that assess students' achievement of Units 3 and 4 outcomes.

SCHOOL-ASSESSED TASK - a school-based assessment for a Unit 3 and 4 sequence and reported as a grade. A school-assessed Task is set by the VCAA and assessed by teachers in accordance with published criteria. Tasks are subject to review by a panel appointed by the VCAA.

SEMESTER - one half of the academic year. Most units are completed in one semester.

SEQUENCE - units 3 and 4 are designed to be taken as a sequence at Year 12 level.

SPECIAL PROVISION - arrangements that are made to allow students who are experiencing significant hardship the maximum opportunity to demonstrate both what they know and what they can do.

STATEMENT OF MARKS - for each examination including the GAT, students can apply for a statement showing the marks they obtained for each question/criteria and the maximum mark available. A fee is charged for each statement.

STATEMENT OF MARKS – STUDY SCORE - the document(s) issued by the VCAA showing the results a student achieved in the VCE, and whether he/she has graduated. See also *VCE Certificate*.

STATISTICAL MODERATION - the process used to ensure that schools' assessments are comparable throughout the State. It involves adjusting each school's School-assessed Coursework scores for each study to match the level and spread of the external reference scores for the students in that school doing that study.

STUDENT NUMBER - the number assigned to each student enrolled in VCE, VCE VET and VCAL.

STUDIES - the subjects available in the VCE.

STUDY DESIGN - a study design for each VCE study is published by the VCAA. It specifies the content for the study and how students' work is to be assessed. School and other VCE providers must adhere to the study designs.

STUDY SCORE - a score from zero to 50 which shows how a student performed in a study, relative to all other students doing that same study. It is based on the student's results in school assessments and examinations.

UNITS - the components of a study. There are usually four units in a study, numbered 1, 2, 3 and 4.

VICTORIAN ASSESSMENT SOFTWARE SYSTEM (VASS) - the Internet-based system used by schools to enter VCE enrolments and results directly onto the VCAA central database.

VASS ADMINISTRATOR - school-based users of VASS who have system control for their school.

VCE CERTIFICATE - the certificate awarded to students who meet the requirements for graduation of the VCE. See also *Statement of Results*.

VCE PROVIDER - a school or other institution authorized to offer VCE units.

VCE VOCATIONAL EDUCATION AND TRAINING (VCE VET) - nationally recognized vocational certificates integrated within the VCE.

VTAC - Victorian Tertiary Admissions Centre, which acts on behalf of universities, TAFEs and other providers facilitating and coordinating the joint selection system. It calculates and distributes the *Australian Tertiary Admission Rank (ATAR)*.

RECORD OF SUBJECT SELECTION FOR 2027

Name : .....

I will be returning to Murrayville Community College. Definitely / Maybe / No *(Circle one)*

Career area(s) of interest - fill in at least one.

1. .....
2. .....
3. .....

The subjects I have to do in order to access my chosen career pathway are:

....

The institutes where suitable courses are available are (to be confirmed with Careers Teacher) :

....

Unit 1 & 2 choices - list in priority order, from 1st to 7th. Remember, you may only be doing 5 units, but name 6. If a Year 11 student in 2026, fill in the units you did / are doing.

Year 11 : Semester 1	**Year 11 : Semester 2**
1. ENGLISH LANGUAGE / VM LITERACY	1. ENGLISH LANGUAGE / VM LITERACY
2.	2. .....
3.	3. .....
4.	4. .....
5.	5. .....
6.	6. .....

Year 12

1. ENGLISH (or equivalent)
2. .....
3. .....
4. .....
5. .....

ACCOUNTING

Unit 1 : The role of Accounting in Business

This unit explores the establishment of a business and the role of accounting in the determination of business success or failure. It considers the importance of accounting information to stakeholders. Students analyse, interpret and evaluate the performance of the business using financial and non-financial information. They use these evaluations to make recommendations regarding the suitability of a business as an investment. Students record financial data and prepare reports for service businesses owned by sole proprietors.

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

In this unit, students develop their knowledge of the accounting process for sole proprietors operating a trading business, with a focus on inventory, accounts receivable, accounts payable and non-current assets. Students use manual processes and ICT, including spreadsheets, to prepare historical and budgeted accounting reports.

Students analyse and evaluate the performance of the business relating to inventory, accounts receivable, accounts payable and non-current assets. They use relevant financial and other information to predict, budget and compare the potential effects of alternative strategies on the performance of the business. Using these evaluations, students develop and suggest to the owner strategies to improve business performance.

Unit 3: Financial Accounting for a trading business

This unit focuses on financial accounting for a trading business owned by a sole proprietor, and highlights the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording.

Students develop their understanding of the accounting processes for recording and reporting, and consider the effects of decisions made on the performance of the business. They interpret reports and information presented in a variety of formats and suggest strategies to the owner to improve the performance of the business.

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

In this unit, students further develop their understanding of accounting for a trading business owned by a sole proprietor and the role of accounting as an information system. Students use the double entry system of recording financial data and prepare reports using the accrual basis of accounting and the perpetual method of inventory recording. Both manual methods and ICT are used to record and report.

Students extend their understanding of the recording and reporting processes, with the inclusion of balance day adjustments and alternative depreciation methods. They investigate both the role and the importance of budgeting in decision-making for a business. They analyse and interpret accounting reports and graphical representations to evaluate the performance of a business. Using this evaluation, students suggest strategies to business owners to improve business performance.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

WHY STUDY ACCOUNTING
Accountants record, classify, summarise, interpret and communicate the financial information about a business. You can apply this to any company, in any field, industry and sector.

CAREER OPTIONS ARE:
- Accountant
- Bookkeeper
- Auditor
- Tax advisor
- Working for a large business in accounting & finance
- Financial Management
- Banking
- Governmental accounting

AGRICULTURAL AND HORTICULTURAL STUDIES

Unit 1 : Food and Fibre Industries
Students develop their understanding of Australia's agricultural and horticultural industries and research the opportunities and practical realities of working in the sector. They consider sources of food and fibre indigenous to Victoria prior to European settlement, and current and past perceptions of Australian agricultural and horticultural industries. Students explore contemporary career pathways and professional roles, with a focus on innovation and creative problem solving in the face of change and challenge. Students seek to understand socio-cultural influences on food and fibre practices, and best practice in agriculture and horticulture in terms of climate zones, soil quality, plant and animal selection, workplace health and safety, and the collection and analysis of quality-assurance data.

Unit 2: Plant and Animal Production
Students research plant and animal nutrition, growth and reproduction. They develop an understanding of the conditions in which plants and animals grow and reproduce, and of related issues and challenges. They evaluate the effectiveness and sustainability of agricultural or horticultural practices. Students investigate the structure, function, nutrition and growth of plants. They explore animal nutrition and digestion, and growth and development, and make comparisons between production methods. Students research reproductive processes and technologies for both plants and animals within the contexts of food and fibre production. They undertake practical tasks relating to the growth and management of plants and animals.

Unit 3: Technology, Innovation and Business Design
In this area of study students focus on the dynamic and innovative nature of Australia's food and fibre production industries. They reflect on the rate of change, the rise of new challenges, and the sector's ever-increasing engagement with innovation and technology. Students inquire into the broad role of innovation and technology in food and fibre production, and consider the impacts of new and emerging tools and applications, as well as innovative research projects. Students reflect on past initiatives, contemporary responses to consumer concerns and ways to evaluate the effectiveness of particular innovations in agricultural and horticultural practices.

Unit 4: Sustainable Food and Fibre Production
In this unit students examine sustainability in terms of land management, as well as its role in food and fibre industries. Sustainability is a holistic concept with environmental, economic and social dimensions. Students research the effects of climate change on food and fibre production through case studies of effective responses to this and other environmental challenges. Students investigate environmental degradation and approaches to sustainable land management and rehabilitation. They study ecosystems, the importance of biodiversity and the applicability of environmental modification techniques. In particular, students consider the constant monitoring of environmental indicators. Within the context of agricultural and/or horticultural practices, sustainability is viewed as both a challenge and an opportunity, with students extending their thinking across the entire production chain from resource suppliers through to consumers. They research strategies for securing sustainable markets, for adding value to primary produce, and for ensuring and promoting the high quality of Australian-grown products.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

WHY STUDY AGRICULTURAL & HORTICULTURAL STUDIES?
If you have an interest in working in the industry and like being outdoors.

CAREER OPTIONS ARE:
- Farming
- Horticulturist
- Landscaper
- Fisheries Officer
- Environmental Scientist
- Agricultural Scientist
- Botanist

Managing an Ag/Hort business, from a variety of choices including:
- fisheries
- poultry
- sheep
- viticulture
- gardening
- seeding/flower production
- hydroponics
- cropping, etc.

ART MAKING AND EXHIBITING

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.

Visual Arts journal - Students record and document art making in the Visual Arts journal.
Finished artworks - Students develop at least one finished artwork from the experimental works information for an exhibition - Students present information about three Australian artists, including at least one Aboriginal or Torres Strait Islander artist, and at least one artwork by each artist

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. They respond to a set theme and progressively develop their own ideas. 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 for exhibitions. They also investigate the roles associated with the planning of exhibitions.

Thematic exhibition - Students design and curate a thematic exhibition of six artworks.
Experimental artworks and documentation - Students explore aesthetic qualities and the use of materials, techniques and processes in artworks and produce a series of experimental artworks.
Finished artworks - Students present at least one finished artwork, with accompanying documentation of the development and refinement of art making, in their Visual Arts journal.

Unit 3: Collect, extend and connect
Students are actively engaged in art making using materials, techniques and processes. They explore contexts, subject matter and ideas to develop artworks in imaginative and creative ways. They also investigate how artists use visual language to represent ideas and meaning in artworks. The materials, techniques and processes of the art form the students work with are fundamental to the artworks they make.

Unit 4: Consolidate, present and conserve
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.

ASSESSMENT - School-Assessed Coursework, School Assessed Tasks (Units 3 & 4); end of year exam.

WHY STUDY ART MAKING AND EXHIBITING?
It's a creative form of communication that not only allows you to explore your own ideas and emotions, but also develops your skills. It teaches you different ways of viewing the world and assists your ability to creatively solve problems. It can lead to a range of interesting careers.

CAREER OPTIONS ARE:

- Architect
- Artist
- Graphic Artist
- Interior Designer
- Photographer
- Art Conservation
- Advertising
- Fashion Designer
- Animator
- Teacher
- Illustrator
- Industrial Designer
- Museum Curator
- Arts Administrator
- Art Historian
- Art Gallery Director
- Occupational Therapist
- Art Critic

BIOLOGY

Unit 1 : How do organisms regulate their functions?
In this unit students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, including the requirements for sustaining cellular processes. Students focus on cell growth, replacement and death and the role of stem cells in differentiation, specialisation and renewal of cells. They explore how systems function through cell specialisation in vascular plants and animals, and consider the role homeostatic mechanisms play in maintaining an animal's internal environment.

Unit 2 : How does inheritance impact on diversity?
In this unit students explore reproduction and the transmission of biological information from generation to generation and the impact this has on species diversity. They apply their understanding of chromosomes to explain the process of meiosis. Students consider how the relationship between genes, and the environment and epigenetic factors influence phenotypic expression. They explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses.

ASSESSMENT TASKS FOR UNITS 1 and 2 – may include:
a report of a fieldwork activity; annotations of a practical work folio; a bioinformatics exercise; media response; data analysis; problem solving. A student-directed investigation into, and communication of, an issue related to the Unit is to be undertaken in Area of Study 3 in both Units.

Unit 3 : How do cells maintain life?
In this unit students investigate the workings of the cell from several perspectives. They explore the relationship between nucleic acids and proteins as key molecules in cellular processes. Students analyse the structure and function of nucleic acids as information molecules, gene structure and expression in prokaryotic and eukaryotic cells and proteins as a diverse group of functional molecules. They examine the biological consequences of manipulating the DNA molecule and applying biotechnologies.

Unit 4 : How does life change and respond to challenges?
In this unit students consider the continual change and challenges to which life on Earth has been, and continues to be, subjected to. They study the human immune system and the interactions between its components to provide immunity to a specific pathogen. Students consider how the application of biological knowledge can be used to respond to bioethical issues and challenges related to disease.

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, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3.

ASSESSMENT – School-assessed coursework including practical investigation (Units 3 & 4) 50%; end of year exam 50%.

WHY STUDY BIOLOGY?
Biology is about what makes living things tick, how they reproduce and the genetic manipulation of living things. If it has a life, you can study it in Biology.

CAREER OPTIONS ARE:
- Forensic Scientist
- Environmental Scientist
- Biomedical Scientist
- Biologist
- Geneticist
- Zoologist/Botanist
- Dietician
- Medical Doctor / Physiotherapist

BUSINESS MANAGEMENT

Unit 1: Planning a business

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

Unit 2: Establishing a business

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

Unit 3: Managing a business

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

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 leadership in change management. Using a contemporary business case study from the past four years, students evaluate business practice against theory.

ASSESSMENT – School-assessed coursework (Units 3&4); end of year exam

WHY STUDY BUSINESS MANAGEMENT?

This subject is for students who:

- are interested in the business world
- enjoy developing and implementing your own ideas
- are thinking about starting your own business in the future
- are already running your own small business or are working in a business
- would like to work in business in some capacity in the future
- would like to know more about how to run a business successfully

CAREER OPTIONS ARE:

- Business Manager
- Accountancy
- Run your own business
- Human Resource Management
- Marketing
- Economics

CHEMISTRY

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 structures and properties of a range of materials, including covalent compounds, metals, ionic compounds and polymers. They are introduced to ways that chemical quantities are measured. They consider how manufacturing innovations lead to more sustainable products being produced for society through the use of renewable raw materials and a transition from a linear economy towards a circular economy.

Unit 2 : 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 involving the specific heat capacity of water, acid-base and redox reactions, solubility, molar volume of a gas, volumetric analysis, and the use of a calibration curve.

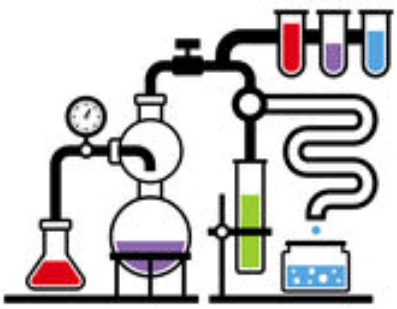
ASSESSMENT TASKS FOR UNIT 1 AND UNIT 2 - may include:
a report of a practical activity; annotations of a practical work folio; a modelling activity; media response; data analysis; problem solving; reflective learning journal/blog; test. A research investigation in Unit 1 and practical investigation into an aspect of water quality in Unit 2 is undertaken in Area of Study 3.

Unit 3 : How can design and innovation help to optimise chemical processes?
Students analyse and compare different fuels as energy sources for society, with reference to the energy transformations and chemical reactions involved, energy efficiencies, environmental impacts and potential applications. They explore food in the context of supplying energy in living systems. The purpose, design and operating principles of galvanic cells, fuel cells, rechargeable cells and electrolytic cells are considered when evaluating their suitability for supplying society's needs for energy and materials. They evaluate chemical processes with reference to factors that influence their reaction rates and extent. They investigate how the rate of a reaction can be controlled so that it occurs at the optimum rate while avoiding unwanted side reactions and by-products. Students conduct practical investigations involving thermochemistry, redox reactions, electrochemical cells, reaction rates and equilibrium systems.

Unit 4 : How are organic compounds categorised, analysed and used?
Carbon is the basis not only of the structure of living tissues but is also found in fuels, foods, medicines, polymers and many other materials that we use in everyday life. In this unit students investigate the structures and reactions of carbon-based organic compounds, including considering how green chemistry principles are applied in the production of synthetic organic compounds. They study the metabolism of food and the action of medicines in the body. They explore how laboratory analysis and various instrumentation techniques can be applied to analyse organic compounds in order to identify them and to ensure product purity. Students conduct practical investigations related to the synthesis and analysis of organic compounds, involving reaction pathways, organic synthesis, identification of functional groups, direct redox titrations, solvent extraction and distillations.
ASSESSMENT – School-assessed coursework including practical investigation (Units 3 & 4) 40%;
end of year exam 60%.

WHY STUDY CHEMISTRY?
Great experiments.
Interesting.
Relates to real life situations.
Use technology.
Building blocks of why reactions and everything occurs around us.
Create …… !!

CAREER OPTIONS ARE:
- Pharmacy
- Engineering
- Teaching
- Veterinary Nurse
- Forensic Science
- Analytical Chemist
- Winemaker
- Nanotechnologist



COMPUTING

VCE Applied Computing focuses on the strategies and techniques for creating digital solutions to meet specific needs and to manage the threats to data, information and software security. The study examines the attributes of each component of an information system including people, processes, data and digital systems (hardware, software, networks), and how their interrelationships affect the types and quality of digital solutions.
VCE Applied Computing is underpinned by four key concepts: digital systems, data and information, approaches to problem solving, and interactions and impact.

Unit 1: Applied Computing
In this unit students are introduced to the stages of the problem-solving methodology. Students focus on how data can be used within software tools such as databases and spreadsheets to create data visualisations, and the use of programming languages to develop working software solutions.
ASSESSMENT TASKS - Assignments involving the use of digital solutions.

Unit 2: Applied Computing
In this unit students focus on developing innovative solutions to needs or opportunities that they have identified, and propose strategies for reducing security risks to data and information in a networked environment.
ASSESSMENT TASKS - Group assignment, as well as individual assignments including a case study
An assignment for both Units 1 & 2 will be to design a large scale project tailored around a student's interest. This will be an area where the student can practise and develop their skills, and centres around any digital solution they find interesting and further develop relevant skills.

For Units 3 & 4, there are two options that students can select between:
Students may elect to undertake one or both of these Units 3 and 4 sequences.
Each unit deals with specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. Each outcome is described in terms of key knowledge and key skills.

Unit 3: Data Analytics
In this unit students apply the problem-solving methodology to identify and extract data through the use of software tools such as database, spreadsheet and data visualisation software to create data visualisations or infographics. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

Unit 4: Data Analytics
In this unit students focus on determining the findings of a research question by developing infographics or dynamic data visualisations based on large complex data sets and on the security strategies used by an organisation to protect data and information from threats.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

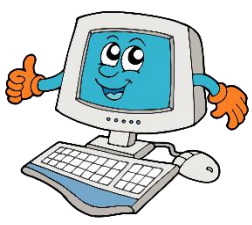
Unit 3: Software Development
In this unit students apply the problem-solving methodology to develop working software modules using a programming language. Students develop an understanding of the analysis, design and development stages of the problem-solving methodology.

Unit 4: Software Development
In this unit students focus on how the information needs of individuals and organisations are met through the creation of software solutions. They consider the risks to software and data during the software development process, as well as throughout the use of the software solution by an organisation.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

WHY STUDY COMPUTING?
In our world where technology is constantly advancing, there is a greater need for an understanding of how this technology operates than ever before. A study of Computing will equip students with a strong foundation in how computers communicate, as well as how to solve problems using a digital solution.

CAREER OPTIONS INCLUDE:
- Software development
- Database administration
- Computer Hardware Engineering
- Computer Systems Analysis,
- Computer Network Architecture
- Web Development
- Cyber Security, etc



ENGLISH LANGUAGE

The study of English Language helps students develop skills that are required in all professional fields of work, including: Engineering, ICT, Management, Finance, Teaching and Law. As a result, the study of an English, or an equivalent, is a compulsory component of your VCE certificate. Murrayville Community College has transitioned to teaching English Language for Units 1-4 from 2024. There are two main Areas of Study in Units 1-2 English Language. This then builds to Formal and Informal Language in Unit 3 and Australian Language and Identity in Unit 4.

Area of Study	1: The nature and functions of language	2: Language acquisition
UNIT 1	In this area of study students explore the nature of language and the various functions that language performs in a range of Australian and other contexts. They consider the properties that distinguish human communication as unique, the differences between the modes of spoken and written language, and the relationship between meaning and conventions that govern language use.	This area of study focuses on the developmental stages of language acquisition, both first- and additional-language learning. Students are introduced to two linguistic theories – universal grammar and usage-based accounts – that attempt to explain how children acquire their first language. They research the so-called 'critical period', the window of opportunity during which language must be acquired . Students examine case studies and engage in field work to explore language acquisition.
ASSESSMENT Total of 100 marks for Unit 1	**1 assessment task, totalling 50 marks** Assessments may take the form of: a folio of annotated texts, an essay, an investigative report, an analysis of spoken and/or written text, an analytical commentary, a case study, short-answer questions or an analysis of data. The assessment may be broken into multiple parts.	**1 assessment task, totalling 50 marks** Assessments may take the form of: a folio of annotated texts, an essay, an investigative report, an analysis of spoken and/or written text, an analytical commentary, a case study, short-answer questions or an analysis of data. The assessment may be broken into multiple parts.
	1: English across time	**2: Englishes in contact**
UNIT 2	This area of study examines the changes that have occurred in English over time. Students investigate the factors that bring about language change, including those that come from contact with other languages, from social and technological transformation, and from within the language itself. They explore language change across some subsystems of language as represented in texts. Students consider the relationship and influence of Indo-European languages on the English language. Students are introduced the elective options of 'Incursions' and 'Inventions' and study one of these topics in depth. They consider how significant social and cultural change impacts language and leads to language change across the subsystems of language.	In this area of study students consider the effects of the global spread of English by learning about both the development and decline of languages as a result of English contact, the elevation of English as a global lingua franca and the cultural consequences of language contact. Students explore the many ways English is used as an expression of identity and culture in written and spoken texts. Students explore factors that contributed to the spread of English in the past, such as trade and colonisation, and factors that continue to contribute to the spread of English today. They consider the development of Australian Englishes, including Aboriginal Australian Englishes, through the lens of colonialism.
ASSESSMENT Total of 100 marks for Unit 2	**1 assessment task, totalling 50 marks**	**1 assessment task, totalling 50 marks**
In addition to the above tasks, both areas of study to be assessed in a mid-year (2 hour) and end-of-year (2 hour) exam.		

ASSESSMENT TASKS:

Assessment in this unit may be selected from the following options, and may contain multiple parts for each AOS Outcome.

- a folio of annotated texts, an essay, an investigative report, an analysis of spoken and/or written text, an analytical commentary, a case study, short-answer questions, an analysis of data and/or oral components.

ALL STUDENTS OF UNITS 1-4 ENGLISH
There is an expectation that students will complete an array of writing and research tasks during the Christmas holiday period before commencing the school year. Text guides and workbooks are generally supplied by the school, but you are welcome to purchase your own if you would like to annotate them or highlight.

CAREER OPTIONS ARE:
The study of English can lead to jobs in journalism, publishing, media, acting, teaching, marketing, and is a component of all professional degrees.

ENGLISH LANGUAGE

Unit 3: Language variation

In this unit students investigate English language in contemporary Australian settings. They consider language as a means of interaction, exploring how through written and spoken texts we communicate information, ideas, attitudes, prejudices and ideological stances.

Unit 4: Language variation and identity

In this unit students focus on the role of language in establishing and challenging different identities. There are many varieties of English used in contemporary Australian society, influenced by the intersection of geographical, cultural and social factors. Students explore how our sense of identity evolves in response to situations and experiences, and is influenced by how we see ourselves and how others see us. Through our language we express ourselves as individuals and signal our membership of particular groups. Students explore how language can distinguish between 'us' and 'them', creating solidarity and reinforcing social distance.

Area of Study	1: Informality	2: Formality
UNIT 3	In this area of study students consider the way speakers and writers choose to vary the style of their language to suit particular purposes. They identify the function and consider and analyse the features of informal language in written, spoken and electronic interactions, understanding that the situational and cultural contexts of an exchange influence the language used. Students examine the features that distinguish informal language from more formal language.	They identify the function and consider and analyse the features of formal language in written, spoken and electronic interactions, understanding that the situational and cultural context of an exchange influences the language used. Students explore the range of ways in which formal language can be used to perform various purposes. They investigate how formal language choices, particularly politeness strategies, can reinforce or challenge social distance, relationship hierarchies and rapport. Similarly, specialised language such as jargon can reinforce the user's authority and expertise or promote in-group solidarity.
ASSESSMENT (SACs) Total of 100 marks for Unit 3	**1 SAC, totalling 50 marks** ***Identify, describe and analyse distinctive features of informal language in written and spoken texts.***	**1 SAC, totalling 50 marks** ***Identify, describe and analyse distinctive features of formal language in written and spoken texts.***
	1: Language variation in Australian society	**2: Individual and group activities**
UNIT 4	On completion of this unit the student should be able to identify, describe and analyse varieties of English in Australian society, the attitudes towards them and the identities they reflect.	On completion of this unit the student should be able to identify, describe and analyse how variation in language, linguistic repertoires and language choices reflects and conveys people's identities. Students learn how societal attitudes, personal associations and individual prejudices can lead to social disadvantage and discrimination.
ASSESSMENT (SACs) Total of 100 marks for Unit 4	**1 SAC, totalling 50 marks**	**1 SAC, totalling 50 marks**
Assessment Tasks	For each Outcome, there is one SAC totalling 50 marks. These may be split into multiple parts. Assessment tasks may be written, oral or multimodal. The total suggested length of the student responses should be approximately 700–900 words or equivalent.	Analysis of one or more samples of informal language in any one or a combination of the following: · a folio of annotated texts · an essay · an investigative report · an analytical commentary · short-answer questions.

The above SACs make up 50% of your overall mark for the year, (25% each semester).
The end-of-year exam makes up the other 50%.
The two hour exam contains tasks based on each of the Areas of Study.

Section A: Short Answer Questions (15 marks)

Section B: Analytical Commentary (30 marks)

Section C: Essay responding to stimulus provided (30 marks)

FOOD STUDIES

Unit 1 : Food origins
In this unit students focus on food from historical and cultural perspectives, and investigate the origins and roles of food through time and across the world. In Area of Study 1 students explore how humans have historically sourced their food, examining the general progression from hunter-gatherer to rural-based agriculture, to today's urban living and global trade in food. Students consider the origins and significance of food through inquiry into one particular food-producing region of the world. In Area of Study 2 students focus on Australia. They look at Australian indigenous food prior to European settlement and how food patterns have changed since, particularly through the influence of food production, processing and manufacturing industries and immigration. Students investigate cuisines that are part of Australia's culinary identity today and reflect on the concept of an Australian cuisine..

Unit 2: Food makers
In this unit students investigate food systems in contemporary Australia. Area of Study 1 focuses on commercial food production industries, while Area of Study 2 looks at food production in domestic and small-scale settings, as both a comparison and complement to commercial production. Students gain insight into the significance of food industries to the Australian economy and investigate the capacity of industry to provide safe, high-quality food that meets the needs of consumers. 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 industries
This unit investigates 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 physiology of eating and appreciating food, and the microbiology of digestion. They also investigate the functional properties of food and the changes that occur during food preparation and cooking. They analyse the scientific rationale behind the Australian Dietary Guidelines and the Australian Guide to Healthy Eating (see www.eatforhealth.gov.au) and develop their understanding of diverse nutrient requirements. Area of Study 2 focuses on influences on food choice: 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.

Unit 4: Food issues, challenges and futures
In this unit students examine debates about global and Australian food systems. Area of Study 1 focuses on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land. Students 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. Area of Study 2 focuses 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. Students consider how to assess information and draw evidence-based conclusions. They apply this methodology to navigate contemporary food fads, trends and diets. They practise and improve their food selection skills by interpreting food labels and analysing the marketing terms used on food packaging.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

Practical lessons that focus on cooking and kitchen skills are a fundamental component throughout this study.

WHY UNDERTAKE FOOD STUDIES?
Food Studies tackles the challenges of contemporary food systems. Students will understand how our food supply is controlled and kept safe and how to offer healthy options to consumers.

CAREER OPTIONS ARE:
- Dietitian
- Nutritionist
- Chef/Cook
- Food Scientist
- Hospitality
- Tourism

FOOD STUDIES

GEOGRAPHY

Unit 1 : Hazards and Disasters
This unit investigates how people have responded to specific types of hazards and disasters. Hazards represent the potential to cause harm to people and or the environment, whereas disasters are defined as serious disruptions of the functionality of a community at any scale, involving human, material, economic or environmental losses and impacts. Hazards include a wide range of situations including those within local areas, such as fast-moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease.

Unit 2 : Tourism: issues and challenges
In this unit students investigate the characteristics of tourism: where it has developed, its various forms, how it has changed and continues to change and its impact on people, places and environments, issues and challenges of ethical tourism. Students select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations.

ASSESSMENT TASKS – 2 Fieldwork Reports (1500-2000 words) - one for each unit, + one other assessment type per unit (either a test, case study, report or data analysis).

Unit 3 : Changing the Land
This unit focuses on two investigations of geographical change: change to land cover and change to land use. Students investigate two major processes that are changing land cover in many regions of the world: melting glaciers and ice sheets, and deforestation. They investigate the distribution and causes of the two processes. They select one location for each of the processes to develop a greater understanding of the changes to land cover produced by these processes, the impacts of these changes and responses to these changes at different scales. At a local scale students investigate land use change using appropriate fieldwork techniques and secondary sources. They investigate the processes of change, the reasons for change and the impacts of change. Students undertake fieldwork and produce a fieldwork report

Unit 4 : Human Population - trends and issues
Students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world.
Students study population dynamics before undertaking an investigation into two significant population trends arising in different parts of the world. They examine the dynamics of populations and their environmental, economic, social, and cultural impacts on people and places.

ASSESSMENT - School-assessed coursework including fieldwork report (1500-2000 words), (Units 3 & 4) 50%; end of year exam 50%.

To satisfy learning outcomes for Units 1, 2 & 3 some fieldwork is necessary. This may mean students are required to go on a camp which will require additional payment.

WHY STUDY GEOGRAPHY?
As the world is becoming smaller due to globalisation, Geography is an essential tool for giving students an understanding of their place in the world.
They gain an understanding of how decisions they make impact on other people and the environment, not only in their local region, but globally as well.

CAREER OPTIONS ARE:
- Land and Resource Managers
- Parks Rangers / Landcare Officers
- Town/Urban Planning
- Analytical and Advisory for Councils' Property Development
- Transportation/Logistics Management
- Marketing
- Real Estate
- Emergency Management
- GIS Specialist
- Teaching
- Climatologist
- Demographer

HEALTH & HUMAN DEVELOPMENT

Unit 1 - Understanding health & wellbeing
In this unit, students explore health and wellbeing as a concept with varied and evolving perspectives and definitions. Students identify perspectives relating to health and wellbeing, and inquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islander Peoples. Students look at the complex interplay of influences on health outcomes and the indicators used to measure and evaluate health status. With a focus on youth, they build health literacy by interpreting and using data in a research investigation into one youth health focus area, and by investigating the role of food.

Unit 2 - Managing health & development
In this unit, students investigate transitions in health and wellbeing, and human development, from lifespan and societal perspectives. Students apply health literacy skills through an examination of adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes. They investigate the challenges and opportunities presented by digital media and consider issues surrounding the use of health data and access to quality health care.

ASSESSMENT TASKS - Units 1 & 2 - Tasks for assessment may include: short written report, eg: media analysis, research inquiry, blog or case study analysis; oral presentation, eg: debate or podcast; visual presentation, eg: graphic organiser, concept/mind map, annotated poster, digital presentation; structured questions, including data analysis.

Unit 3 - Australia's health in a globalised world
In this unit, students look at health and wellbeing, disease and illness as being multidimensional, dynamic and subject to different interpretations and contexts. They explore health and wellbeing as a global concept and take a broader approach to inquiry. Students focus on health promotion and improvements in population health over time. Through researching health improvements and evaluating successful programs, they explore various public health approaches and the interdependence of different models.

Unit 4 - Health and human development in a global context
In this unit, students examine health and human development in a global context. They use data to investigate health status and human development in different countries, exploring factors that contribute to health inequalities between and within countries, including the physical, social and economic conditions in which people live. Students consider global action to improve health and human development, focusing on the United Nations' (UN's) Sustainable Development Goals (SDGs) and the goal and objectives of the World Health Organization (WHO). They also investigate the role of non-government organisations and Australia's overseas aid program.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam worth 50%.

WHY STUDY HEALTH & HUMAN DEVELOPMENT?
It is a fascinating study of our health and development across the lifespan, and is very interesting because it is all about us and the people around us, from our close family through to our very poor neighbours in developing countries.

CAREER OPTIONS ARE:
- Dietitian/Nutritionist
- Naturopath
- Welfare/Youth/Social Worker
- Health Promotions Officer
- Teacher
- Nurse
- Consumer Advisor
- Nanny
- Child Care Worker
- Speech Therapist

HISTORY

The study of VCE History assists students to understand themselves, others and their world, and broadens their perspective by examining people, groups, events, ideas and movements. Through studying VCE History, students develop social, political, economic and cultural understanding. They also explore continuity and change: the world is not as it has always been, and it will be subject to change in the future. In this sense, history is relevant to contemporary issues. It fosters an understanding of human agency and informs decision making in the present.

Units 1 and 2: Twentieth century History 1918 –1939

Unit 1: Students examine consequences of the peace treaties which ended World War One, and the impact of ideologies on nations and the events that led to World War Two. Students focus on the social life and cultural expression in the 1920s and 1930s and their relation to the technological, political and economic changes of the period.

Unit Two: Students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century.

ASSESSMENT TASKS - over Units 1 and 2 include a historical inquiry, an analysis of primary sources, an analysis of historical interpretations and an essay.

Units 3 & 4 : Australian History

In VCE Australian History students explore four periods of time which span some of the transformative events and processes that developed and changed the nature of Australian society and created modern Australia. Study begins in the 1830s with the expansion of European control over much of southern Australia as squatters appropriated country inhabited by Aboriginal peoples. The remaining three time periods consider transformations undergone by the new Australian nation in the twentieth century.

Areas of Study:

Unit 3: Transformations: Colonial society to nation

The reshaping of Port Phillip District/Victoria, 1834 –1860

Making a people and a nation 1890 –1920

Unit 4: Transformations: Old certainties and new visions

Crises that tested the nation 1929 –1945

Voices for change 1965 –2000

Units 3 & 4 : Revolutions

Students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point which brings about the collapse and destruction of an existing political order resulting in a pervasive change to society. Revolutions are caused by the interplay of ideas, events, individuals and popular movements. Their consequences have a profound effect on the political and social structures of the post-revolutionary society.

ASSESSMENT TASKS – over Units 3 and 4 include a historical inquiry, an analysis of primary sources, an analysis of historical interpretations and an essay.

WHY STUDY HISTORY?

History emphasizes the uniqueness of human experience, both individual and collective.

This develops critical thinking and analysis of our place in the world.

CAREER OPTIONS ARE:

- Tourism
- Writer
- Library or Museum Technician
- Researcher
- Political Scientist
- Solicitor
- Diplomat
- Foreign Affairs Officer
- Administration
- Photographer
- Journalist
- Teaching
- Barrister
- Criminologist
- Film / Stage / Television
- Philosophy

LEGAL STUDIES

Unit 1: The presumption of innocence	Area of Study 1: Legal foundations	Area of Study 2: Proving guilt	Area of Study 3: Sanctions
In this unit, students develop an understanding of legal foundations, such as the different types and sources of law, the characteristics of an effective law, and an overview of parliament and the courts. Students are introduced to and apply the principles of justice. They investigate key concepts of criminal law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime. They study three Areas of Study: Legal foundations, Proving guilt, Sanctions. Students apply their understanding of how criminal cases are resolved and the effectiveness of sanctions through consideration of recent criminal cases from the past four years.	This area of study provides students with foundational knowledge of laws and the Australian legal system. Students explore the role of individuals, laws and the legal system in achieving social cohesion and protecting the rights of individuals. Students consider the characteristics of an effective law, and sources and types of law. They examine the relationship between parliament and the courts in law-making, and the reasons for a court hierarchy in Victoria, they also develop an understanding of the principles of justice.	The presumption of innocence is a fundamental principle of criminal law and provides a guarantee that an accused is presumed innocent until proven guilty beyond reasonable doubt. In this area of study, students develop an understanding of the purposes of and key concepts in criminal law, as well as the types of crime. They also investigate two criminal offences in detail. For each offence, students consider actual and/or hypothetical scenarios in which an accused has been charged with the offence, use legal reasoning to determine possible culpability and explain the impact of the offence on individuals and society.	In this area of study, students investigate key concepts in the determination of a criminal case, including the institutions that enforce criminal law, the purposes and types of sanctions, and alternative approaches to sentencing such as the Drug Court, Koori Courts and diversion programs. Students compare approaches to sentencing in Victoria to one other Australian jurisdiction. Through an investigation of criminal cases from the past four years, students apply their knowledge to discuss the effectiveness of sanctions and the ability of the Victorian criminal justice system to achieve the principles of justice.
Assessment Total of 100 marks for Unit 1	3 assessment tasks, totalling 100 marks Assessments may include a combination of: a folio of exercises, an oral or digital presentation, such as a podcast or video, a Wiki, website or blog, structured questions, a mock trial or role play, a debate, a research report or media analysis, an essay, a question-and-answer session.		
Unit 2: Wrongs and rights	Area of Study 1: Civil liability	Area of Study 2: Remedies	Area of Study 3: Human rights
Civil law aims to protect the rights of individuals. When rights are infringed, a dispute may arise requiring resolution, and remedies may be awarded. In this unit, students investigate key concepts of civil law and apply these to actual and/or hypothetical scenarios to determine whether a party is liable in a civil dispute. Students explore different areas of civil law, and the methods and institutions that may be used to resolve a civil dispute and provide remedies. They apply knowledge through an investigation of civil cases from the past four years. Students also develop an understanding of how human rights are protected in Australia and possible reforms to the protection of rights, and investigate a contemporary human rights issue in Australia, with a specific focus on one case study.	Civil law aims to protect the rights of individuals, groups and organisations, and provide opportunities for a wronged party to seek redress for a breach. In this area of study, students develop an understanding of key concepts in civil law and investigate two areas of civil law in detail. Possible areas of civil law could include negligence, defamation, nuisance, trespass and contracts. For each area of civil law, students consider actual and/or hypothetical scenarios giving rise to a civil claim, apply legal reasoning to determine possible liability for a breach of civil law and explain the impact of a breach of civil law on the parties.	Remedies may be available to a wronged party where there has been a breach of civil law. In this area of study, students develop an appreciation of how civil disputes are resolved, including the methods and institutions available to resolve disputes, and the purposes and types of remedies. Through an investigation of civil cases from the past four years, students apply their knowledge to discuss the effectiveness of remedies and the ability of the civil justice system to achieve the principles of justice.	The protection of rights is fundamental to a democratic society. Rights are protected in Australia through the Australian Constitution, the Victorian Charter of Human Rights and Responsibilities and through common law and statute law, including in relation to discrimination and equal opportunity. In this area of study, students examine the ways in which human rights are protected in Australia and consider possible reforms to the protection of human rights. Students investigate one human rights issue in Australia, such as in relation to the right to vote, the right to freedom of religion, or the rights of First Nations peoples.
Assessment Total of 100 marks for Unit 2	3 assessment tasks, totalling 100 marks : Assessments may include a combination of: a folio of exercises, an oral or digital presentation, such as a podcast or video, a Wiki, website or blog, Structured questions, a mock trial or role play, a debate, a research report or media analysis, an essay, a question-and-answer session.		

LEGAL STUDIES : Units 3 & 4

The study of Legal Studies helps students develop skills that are required in professional fields of work, including:
Law, Human Relations, Politics, ICT, Management, Finance, Teaching, court professionals, business, and policy making. As a result, the study of Legal Studies, is not just for those intending to be lawyers. There are three main Areas of Study in Units 1-2 Legal Studies and two main Areas of Study for Units 3 & 4 Legal Studies.

Area of Study	1: The Victorian criminal justice system	2: The Victorian civil justice system
UNIT 3	On completion of this unit the student should be able to explain the key principles in the criminal justice system, discuss the ability of sanctions to achieve their purposes and evaluate the ability of the criminal justice system to achieve the principles of justice during a criminal case. .	On completion of this unit the student should be able to explain the key principles in the civil justice system, discuss the ability of remedies to achieve their purposes and evaluate the ability of the civil justice system to achieve the principles of justice during a civil dispute.
ASSESSMENT (SACs) Total of 100 marks for Unit 3	**1 SAC, totalling 50 marks** Assessments may be split into multiple parts, and will include one or more of the following: a case study, structured questions, an essay, a report, a folio of exercises.	**1 SAC, totalling 50 marks** Assessments may be split into multiple parts, and will include one or more of the following: a case study, structured questions, an essay, a report, a folio of exercises.
	1: The people and the law-makers	**2: The people and the reform**
UNIT 4	On completion of this unit the student should be able to discuss the ability of parliament and courts to make law and evaluate the means by which the Australian Constitution acts as a check on parliament in law-making.	On completion of this unit the student should be able to explain the reasons for law reform and constitutional reform, discuss the ability of individuals to change the Australian Constitution and influence a change in the law, and evaluate the ability of law reform bodies to influence a change in the law.
ASSESSMENT SACs Total of 100 marks for Unit 4	**1 SAC, totalling 60 marks** Assessments may be split into multiple parts, and will include one or more of the following: a case study, structured questions, an essay, a report, a folio of exercises.	**1 SAC, totalling 40 marks** Assessments may be split into multiple parts, and will include one or more of the following: a case study, structured questions, an essay, a report, a folio of exercises.

The above SACs make up 50% of your overall mark for the year, (25% each semester).
The end-of-year exam makes up the other 50%.
The two hour exam contains two sections: a short answer section and analytical responses to source material, based on each of the areas of study.

ALL STUDENTS OF UNITS 1-4 LEGAL STUDIES

There is an expectation that students will complete an array of writing and or research tasks during the Christmas holiday period before commencing the school year. Textbooks are generally supplied by the school, but you are welcome to purchase your own if you would like to annotate them.

There will also be opportunities for excursions during this study, including attending court sessions in Mildura. This may incur an additional charge for excursion costs.

CAREER OPTIONS ARE:

The study of Legal Studies can lead to jobs in business, finance, law, accounting, teaching, community services, social work, human relations, policy making, politics and can be a component of all professional degrees or roles.

It contains material relevant to life as an Australian citizen or resident, and how laws are relevant to students' lives.

What is Mathematics all about?

Mathematics is the study of function and pattern in number, logic, space and structure, and of randomness, chance, variability, and uncertainty in data and events. It is both a framework for thinking and a means of symbolic communication that is powerful, logical, concise and precise. Mathematics also provides a means by which people can understand and manage human and natural aspects of the world and interrelationships between these. Essential mathematical activities include conjecturing, hypothesising and problem-posing; estimating, calculating, computing and constructing; abstracting, proving, refuting and inferring; applying, investigating, modelling and problem-solving.

STRUCTURE

The study is made up of the following units:

Foundation Mathematics Units 1–4
General Mathematics Units 1–4
Mathematical Methods Units 1–4
Specialist Mathematics Units 1–4

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

A glossary defining terms used across Units 1 to 4 in the VCE Mathematics Study Design is included in the Support materials.

The areas of study from which content is drawn as applicable to each unit are: Algebra, number and structure; Calculus; Data analysis, probability and statistics; Discrete Mathematics; Functions, relations and graphs; and Space and measurement.

Units 1–4 have been developed as a sequence, with Units 1 and 2 covering assumed key knowledge and key skills as preparation for Units 3 and 4.

COMMON COURSE PATHWAYS IN VCE MATHEMATICS

Units 1 and 2	Units 3 and 4
Foundation Mathematics	Foundation Mathematics
General Mathematics	General Mathematics or Foundation Mathematics
Mathematical Methods	Mathematical Methods or General Mathematics
General Mathematics and Mathematical Methods	General Mathematics and Mathematical Methods
Mathematical Methods and Specialist Mathematics	Mathematical Methods and Specialist Mathematics
Mathematical Methods and Specialist Mathematics	General Mathematics, Mathematical Methods and Specialist Mathematics

MATHEMATICS - FOUNDATION MATHS

Units 1 & 2

Foundation Mathematics Units 1 and 2 focus on providing students with the mathematical knowledge, skills, understanding and dispositions to solve problems in real contexts for a range of workplace, personal, further learning, and community settings relevant to contemporary society. They are also designed as preparation for Foundation Mathematics Units 3 and 4 and contain assumed knowledge and skills for these units.

In Foundation Mathematics there is a strong emphasis on using mathematics in practical contexts relating to everyday life, recreation, work and study. These units will be especially useful for students undertaking VET studies.

In undertaking these units, students are expected to be able to apply techniques, routines and processes involving integer, rational and real arithmetic, sets, lists and tables, contemporary data displays, diagrams, plans, geometric objects and constructions, algorithms, measures, 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, statistical and financial functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

ASSESSMENT TASKS -
Unit 1 : assignments, tests, solutions to sets of worked questions, summary notes or review notes, modelling tasks, problem-solving tasks, mathematical investigations.
Unit 2 : assignments, tests, solutions to sets of worked questions, summary notes or review notes, modelling tasks, problem-solving tasks, mathematical investigations, end of year exam.

Units 3 & 4

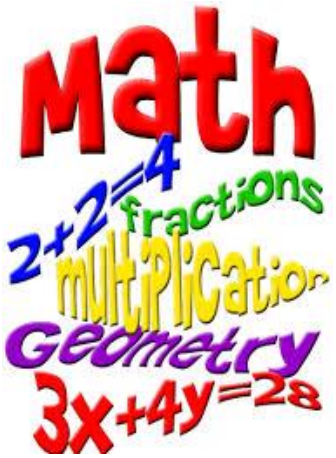
Foundation Mathematics Units 3 and 4 focus on providing students with the mathematical knowledge, skills and understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society. The areas of study for Units 3 and 4 are 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Discrete mathematics' and 'Space and measurement'. All four areas of study are to be completed over the two units, and content equivalent to two areas of study covered in each unit. The selected content for each unit should be developed using contexts present in students' other studies, work and personal or other familiar situations, and in national and international contexts, events and developments.

ASSESSMENT - Mathematical Investigation 1 (20%), Mathematical Investigation 2 (20%), Mathematical Investigation 3 (20%), End of Year Exam (40%)

WHY STUDY FOUNDATION MATHEMATICS?

Foundation Maths will provide students with a solid foundation for the maths they are likely to meet in everyday life.

The course provides students with skills in report writing, mathematical analysis of statistical data and confidence with standard calculations and interpretation methods.



CAREER OPTIONS ARE:

- Trade occupations

MATHEMATICS - GENERAL

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

General Mathematics is an important choice for students who will be going on to study Further Mathematics. A sequence of General Mathematics and Further Mathematics is adequate for most university and TAFE courses. Students intending to study science courses at tertiary level should, however, study Mathematics Methods.

ASSESSMENT TASKS -
Unit 1 : assignments, tests, solutions to sets of worked questions, summary notes or review notes, modelling tasks, problem-solving tasks, mathematical investigations.
Unit 2 : assignments, tests, solutions to sets of worked questions, summary notes or review notes, modelling tasks, problem-solving tasks, mathematical investigations, end of year exam.

Units 3 & 4
General Mathematics Units 3 and 4 focus on real-life application of mathematics and consist of the areas of study 'Data analysis, probability and statistics' and 'Discrete mathematics'.
Unit 3 comprises Data analysis and Recursion and financial modelling, and Unit 4 comprises Matrices and Networks and decision mathematics.
Assumed knowledge and skills for General Mathematics Units 3 and 4 are contained in General Mathematics Units 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes of General Mathematics Units 3 and 4.
In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists, tables and matrices, diagrams, networks, algorithms, algebraic manipulation, recurrence relations, equations and graphs. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic statistical and financial functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

ASSESSMENT - Application Task (16%), Modelling Task (8%), Modelling or Problems Solving Task (8%), Modelling or Problem Solving Task (8%), End of Year Exam 1 (30%), End of Year Exam 2 (30%).

WHY STUDY GENERAL & FURTHER MATHEMATICS?
General Maths followed by Further Maths provides basic maths skills required or desired by many tertiary courses, including TAFE.
The course provides students with skills in report writing, mathematical analysis of statistical data and confidence with standard calculations and interpretation methods.

CAREER OPTIONS ARE:
- Most diploma TAFE courses
- University Arts courses
- Social Science courses
- Specialised courses such as Nursing

MATHEMATICS - METHODS

Units 1 & 2

Mathematical Methods Units 1 and 2 provide an introductory study of simple elementary functions of a single real variable, algebra, calculus, probability and statistics and their applications in a variety of practical and theoretical contexts. The units are designed as preparation for Mathematical Methods Units 3 and 4 and contain assumed knowledge and skills for these units. The focus of Unit 1 is the study of simple algebraic functions, and the areas of study are 'Functions, relations and graphs', 'Algebra, number and structure', 'Calculus' and 'Data analysis, probability and statistics'. The focus of Unit 2 is the study of simple transcendental functions, the calculus of polynomial functions and related modelling applications.

Mathematics Methods is an important choice for students who will be going on to study Mathematics Methods at Unit 3 + 4. Students intending to study science courses at tertiary level should study Mathematics Methods.

ASSESSMENT TASKS -
Unit 1 : assignments, tests, solutions to sets of worked questions, summary notes or review notes.
Unit 2 : assignments, tests, solutions to sets of worked questions, summary notes or review notes, modelling tasks, problem-solving tasks, mathematical investigations.

Units 3 & 4

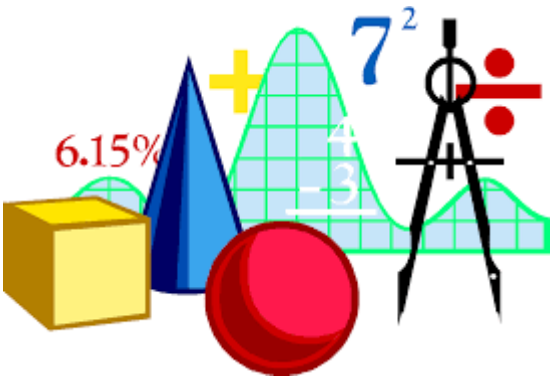
Mathematical Methods Units 3 and 4 extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Units 3 and 4 consist of the areas of study 'Algebra, number and structure', 'Data analysis, probability and statistics', 'Calculus', and 'Functions, relations and graphs', which must be covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. Assumed knowledge and skills for Mathematical Methods Units 3 and 4 are contained in Mathematical Methods Units 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and key skills for the outcomes of Mathematical Methods Units 3 and 4.

ASSESSMENT - Application Task (20%), Modelling or Problems Solving Task 1 (10%), Modelling or Problem Solving Task 2 (10%), End of Year Exam 1 (20%), End of Year Exam 2 (40%).

WHY STUDY MATHEMATICS METHODS?
Leads to greater career opportunities.
Pre-requisite for many of the leading occupations.
Develops problem-solving skills.

CAREER OPTIONS ARE:

- Engineer
- Architect
- Geophysicist
- Teacher
- Robotics
- Lawyer
- Doctor
- Pilot
- Town Planner
- Croupier
- Survey Assistant
- Bank Officer
- Accountant
- Most Science related courses



MATHEMATICS - SPECIALIST MATHEMATICS

Units 1 & 2

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

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

Specialist Mathematics gives opportunities for students who want to expand their mathematical learning into more complex and abstract thinking. It is vital that students undertake Units 1 + 2 if they wish to complete Units 3 + 4. However, Units 1 + 2 of Specialist Mathematics also enables students to better understand the topics covered in Units 3 + 4 of Mathematics Methods.

ASSESSMENT TASKS -

Unit 1 - assignments, tests, solutions to sets of worked questions, summary and review notes.
Unit 2 - assignments, tests, solutions to sets of worked questions, summary and review notes.

Unit 3 & 4

Specialist Mathematics Units 3 and 4 consist of the areas of study: 'Algebra, number and structure', 'Calculus', 'Data analysis, probability and statistics', 'Discrete mathematics', 'Functions, relations and graphs', and 'Space and measurement'. The development of course content should highlight mathematical structure, reasoning and proof and applications across a range of modelling contexts with an appropriate selection of content for each of Unit 3 and Unit 4. The selection of content for Unit 3 and Unit 4 should be constructed so that there is a balanced and progressive development of knowledge and skills with connections among the areas of study being developed as appropriate across Unit 3 and Unit 4.

Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and key skills from Mathematical Methods Units 1 and 2; the key knowledge and key skills from Specialist Mathematics Units 1 and 2; and concurrent study or previous completion of Mathematical Methods Units 3 and 4. Together these cover the assumed knowledge and skills for Specialist Mathematics Units 3 and 4, which are drawn on as applicable in the development of content from the areas of study and key knowledge and key skills for the outcomes.

ASSESSMENT - Application Task (20%) Modelling or Problem Solving Task 1 (10%), Modelling or Problem Solving Task 2 (10%), End of Year Exam 1 (20%), End of Year Exam 2 (40%)

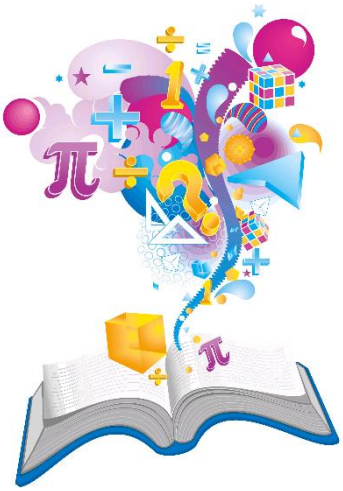
WHY STUDY SPECIALIST MATHS?

A study of Specialist Mathematics provides students with suitable background knowledge to understand and analyse mathematical ideas and techniques, and to solve problems confidently and eloquently. Students will have confidence and skills to tackle all maths courses at tertiary level.

CAREER OPTIONS ARE:

Skills acquired from a study of Specialist Maths are desirable for tertiary studies in:

- Maths
- Engineering
- Science
- Social Sciences



OUTDOOR & ENVIRONMENTAL STUDIES

Unit 1 : Connections with outdoor environments
This unit examines some of the ways in which humans understand and relate to nature through experiences of outdoor environments. The focuses is on individuals and their personal responses to and experiences of outdoor environments.
Through outdoor experiences, students develop practical skills and knowledge to help them act sustainably in outdoor environments.

Unit 2 : Discovering outdoor environments
This unit focuses on the different ways to understand outdoor environments and the impact of humans on outdoor environments. Students study the effects of natural changes and impacts of land management practices on the sustainability of outdoor environments through case studies and practical outdoor experiences.
Through outdoor experiences, students develop the practical skills to minimise the impact of humans on outdoor environments.

ASSESSMENT - demonstration of achievement is based on the student's performance on a selection of assessment tasks: oral presentations; practical reports in non-text format such as multimedia, annotated visual display; short reports of outdoor experiences; tests; written responses.

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 over 60,000 years.
Students consider a number of factors that influence contemporary relationships with outdoor environments. They also examine the dynamic nature of relationships bet ween humans and their environment.

Unit 4 : Sustainable outdoor relationships
In this unit students explore the sustainable use and management of outdoor environments . They observe and asses the health of outdoor environments and consider the importance of this health for the future of Australian outdoor environments and the Australian population.
Students engage in multiple related experiences in outdoor environments, conducting an ongoing investigation into the health of, and care for, these places. They learn and apply the practical skills and knowledge required to sustain health outdoor environments and evaluate the strategies and actions they employ.
Students undertake an independent investigation into the changing relationships with, and the sustainability of, at least two different visited outdoor environments across both Units 3 and 4, which is assessed in Unit 4 Outcome 3.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam. Students undertake an independent investigation into the changing relationships with, and the sustainability of, at least two different visited outdoor environments across both Units 3 and 4, which is assessed in Unit 4 Outcome 3.

Through outdoor experiences, students develop practical skills and knowledge to help them live sustainably in outdoor environments. Students understand the links between practical experiences and theoretical investigations, gaining insight into a variety of responses to, and relationships with, nature.

WHY STUDY OUTDOOR & ENVIRONMENTAL STUDIES?
This subject will be of interest if you enjoy participating in activities in the outdoor environment and have an interest in the environment.

CAREER OPTIONS ARE:
- Tourism Industry
- Outdoor Education
- Environmental Science
- Park Ranger
- Recreation Officer
- Instructor
- Fisheries Officer

Note:
Please consider that as outdoor experiences are essential to this study there are compulsory outdoor camps / excursions which form the basis of study for Units 1,2, 3 & 4.

PHYSICAL EDUCATION

Unit 1 : The human body in motion
In this unit, students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Students investigate the role and function of the main structures in each system and how they respond to movement. Through participation in practical activities, students explore and analyse the relationships between the body systems and movement, and how these systems interact and respond at various intensities. Students investigate possible conditions and injuries associated with the musculoskeletal system and recommend and implement strategies to minimise and manage such injuries and conditions. They consider the ethical implications of using permitted and prohibited practices to improve the performance of the body systems, evaluating perceived physiological benefits and describing potential harms.

Unit 2 : Physical activity, sport and society
In this area of study, students investigate the cardiovascular and respiratory systems of the human body and how the heart, blood vessels and lungs function at rest and during physical activity. Through practical activities, students explore the structures and function of the cardiorespiratory system and the contributions and interactions of each system during physical activity, sport and exercise at various intensities. The impacts of regular aerobic exercise on the functioning of these systems are also examined. Students consider a variety of permitted and prohibited substances and methods used to enhance performance of the cardiorespiratory system. They also explore the ethical and sociocultural considerations of using permitted and prohibited performance-enhancing substances and methods.

ASSESSMENT - The main assessment for unit 1 & 2 is a reflective folio and written report, along with structured questions, case studies, data analysis, oral presentations, multimedia presentations and practical laboratory reports.

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

Unit 4 : Training to improve performance
In this unit, students' participation and involvement in physical activity will form the foundations of understanding how to improve performance from a physiological perspective. Students analyse movement skills and fitness requirements and apply relevant training principles and methods to improve performance at various levels (individual, club and elite).
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 assess fitness and use collected data to justify the selection of fitness tests based on the physiological requirements of an activity, including muscles used, energy systems and fitness components. Students then consider all physiological data, training principles and methods to design a training program. The effectiveness of programs is evaluated according to the needs of the individual and chronic adaptations to training.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

WHY STUDY PHYSICAL EDUCATION?
If you want to know how the body works and have an interest in physical activity, you will enjoy this subject. A great subject to study with Biology, Psychology or Health and Human Development.

CAREER OPTIONS ARE:

- Fitness Leadership
- Human Movement
- Sports Administrator
- Nurse - Registered
- Health Promotion
- Physiotherapist
- Ambulance Officer
- Physical Education Teacher
- Massage Therapist

PHYSICS

Unit 1 : What ideas explain the physical world?
In this unit students explore some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. They consider thermal concepts by investigating heat and assessing the impact of human use of energy on the environment. Students evaluate common analogies used to explain electricity and investigate how electricity can be manipulated and utilised. They examine current scientifically accepted theories that explain how matter and energy have changed since the origins of the Universe.

Unit 2 : What do experiments reveal about the physical world?
In this unit students explore the power of experiments in developing models and theories. They make direct observations of physics phenomena and examine the ways in which phenomena can be explored including through indirect observations. Students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary. They choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science.
Students design and undertake investigations involving at least one independent, continuous variable.
A student-designed practical investigation related to content drawn from Area of Study 1 and/or Area of Study 2 is undertaken in Area of Study 3.

ASSESSMENT TASKS -(Units 1 & 2) - folios; data analysis; multimedia presentations; responses to a media article; practical reports; written reports; tests.

Unit 3 : How do fields explain motion and electricity?
In this unit, students explore the importance of energy in explaining the physical world. They examine the production of electricity and its delivery to homes. They explore the interactions, effects and applications of gravitational, electric and magnetic fields including the design and operation of particle accelerators. Students use Newton's laws and Einstein's theories to investigate and describe motion.
Students design and undertake investigations involving at least two independent variables, with at least one of these being continuous.

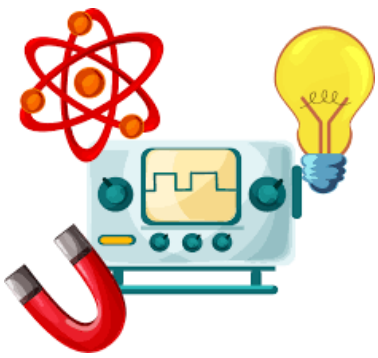
Unit 4 : How can two contradictory models explain both light and matter?
Students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and analyse its limitations in describing light behaviour. Students further investigate light by using a particle model to explain its behaviour.
Students design and undertake investigations involving at least two continuous independent variables.
A student -designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Unit 3 and Unit 4. The findings of the investigation are presented in a scientific poster format.

ASSESSMENT - school-assessed coursework (Units 3 & 4) 40%; end of year exam 60%.

WHY STUDY PHYSICS?
Physics will be of value If you enjoy finding out how things work.
Physics is often the key to the basis of many other science disciplines; understanding physics puts you in a very advantageous position.

CAREER OPTIONS ARE:
Study of Physics leads to careers in:

- Electronics
- Engineering
- Physiotherapy
- Nuclear/ Particle physics
- Engineering
- Mining industry
- Digital electronics
- Science



PRODUCT, DESIGN & TECHNOLOGY

(Students can work with wood, metal fabric or a combination)

Rationale : VCE Product Design and Technologies offers students a range of relevant practical and applied experiences that can support future career pathways in design fields. These include industrial design, textiles, jewellery, fashion, interior spaces and exhibitions, engineering, building and construction, furniture, and transport. Future pathways also include careers in specialised areas of arts and design at professional, industrial and vocational levels.

Unit 1 : Design Practices

This unit focuses on the work of designers across relevant specialisations in product design. Students explore how designers collaborate and work in teams; they consider the processes that designers use to conduct research and the techniques they employ to generate ideas and design products. In doing this, they practise using their critical, creative and speculative thinking strategies. When creating their own designs, students use appropriate drawing systems – both manual and digital – to develop graphical product concepts. They also experiment with materials, tools and processes to prototype and propose physical product concepts.

Unit 2 : Positive impacts for end users

Designers should look outward, both locally and globally, to research the diverse needs of end users. They should explore how inclusive product design solutions can support belonging, access, usability and equity. In this unit, students specifically examine social and/or physical influences on design. They formulate a profile of an end user(s), research and explore the specific needs or opportunities of the end user(s) and make an inclusive product that has a positive impact on belonging, access, usability and/or equity. Students also explore cultural influences on design. They develop an awareness of how Aboriginal and Torres Strait Islander peoples design and produce products, how sustainable design practices care for Country, and how traditions and culture are acknowledged in contemporary designs. Students also have opportunities to make connections to personal or other cultural heritages.

ASSESSMENT TASKS (Units 1 & 2) – design folio and completed product; may also include written reports, oral presentations and/or case studies.

Unit 3 : Ethical product design and development

In this unit, students investigate a personal, local, or global need or opportunity, with clear links to ethical considerations. They conduct research to generate product concepts and develop a final proof of concept that addresses the needs of end users. Product designers respond to evolving social, economic, environmental, and ethical factors. The unit emphasizes sustainable practices, material analysis, manufacturing tensions, and product lifecycles from ethical and worldview perspectives. Students plan and develop an ethical product using a problem-based design approach, guided by the Double Diamond model and design thinking. Acting as designers, they generate, analyse, and critique product concepts, refining one into a final proof of concept. Throughout the process, they evaluate their designs using relevant factors and apply ethical research methods to define their design need and develop solutions.

Unit 4 : production and evaluation of ethical designs

In this unit students continue to work as designers throughout the production process. They observe safe work practices in their chosen design specialisations by refining their production skills using a range of materials, tools and processes. Students collect, analyse, interpret and present data, use ethical research methods and engage with end user(s) to gain feedback and apply their research and findings to the production of their designed solution. Students also focus on how speculative design thinking can encourage research, product development and entrepreneurial activity through the investigation and analysis of examples of current, emerging and future technologies and market trends.

ASSESSMENT- school-assessed coursework (Units 3 & 4); School-assessed task – Units 3 & 4; end of year exam.

WHY STUDY DESIGN TECHNOLOGY?
To further develop students' understanding of the design process on industrial setting, and develop project management and problem-solving skills.

CAREER OPTIONS ARE:
Advancement into manufacturing trades and entry into manufacturing courses in both TAFE and university, including engineering and design orientated subjects.

Note: School Assessed Task – Units 3 & 4.
Students need to supply their own materials to design and make a product according to set criteria. Costs can range from $50-500 (for materials), depending on the style of the product. Students also need to present a folio for the written component of the School Assessed Task.

PSYCHOLOGY

Unit 1 - How are behaviour and mental processes shaped?
In this unit students examine the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary knowledge from Western and non-Western societies, including Aboriginal and Torres Strait Islander peoples, has made to an understanding of psychological development and to the development of psychological models and theories used to predict and explain the development of thoughts, emotions and behaviours. They investigate the structure and functioning of the human brain and the role it plays in mental processes and behaviour and explore brain plasticity and the influence that brain damage may have on a person's psychological functioning.

Unit 2 - How do internal and external factors influence behaviour and mental processes?
In this unit students evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of individuals and groups, recognising that different cultural groups have different experiences and values. Students are encouraged to consider Aboriginal and Torres Strait Islander people's experiences within Australian society and how these experiences may affect psychological functioning. 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 developed and maintained?
In this unit students explore the demand for sleep and the influences of sleep on mental wellbeing. They consider the biological mechanisms that regulate sleep and the relationship between rapid eye movement (REM) and non-rapid eye movement (NREM) sleep across the life span. They also study the impact that changes to a person's sleep-wake cycle and sleep hygiene have on a person's psychological functioning and consider the contribution that classical and contemporary research has made to the understanding of sleep. Students consider ways in which mental wellbeing may be defined and conceptualised, including social and emotional wellbeing (SEWB) as a multidimensional and holistic framework to wellbeing. They explore the concept of mental wellbeing as a continuum and apply a biopsychosocial approach, as a scientific model, to understand specific phobia. They explore how mental wellbeing can be supported by considering the importance of biopsychosocial protective factors and cultural determinants as integral to the wellbeing of Aboriginal and Torres Strait Islander peoples.

ASSESSMENT TASKS :
School-assessed coursework, selected from a choice of annotations, comparison, report of student investigation, analysis of data, media analysis, structured questions, reflective learning journal, test; PLUS a structured scientific poster, AND end-of-year exam.

WHY STUDY PSYCHOLOGY?
This subject looks at describing, predicting, controlling and explaining behaviour and mental process - a great subject for all VCE students! It is interesting to find out why people behave as they do, and to investigate subjects such as normality and intelligence.

CAREER OPTIONS:
- Psychologist (industry, health centres, schools, defence force, private practice)
- Welfare
- Youth Worker
- Nurse
- Occupational Therapist
- Social Worker
- Child Care Worker
- Teacher

SOCIOLOGY

Unit 1: Youth and family

In this unit, students use sociological methodology to explore the social category of youth and the social institution of family. Sociologists draw on methods of science to understand how and why people behave the way they do when they interact in a group. Sociology attempts to understand human society from a holistic point of view, including consideration of society's composition, how it is reproduced over time and the differences between societies. When sociologists investigate a topic, they attempt to do so with a reflective, critical mindset. Sociologists are guided by theories, or frameworks, to explain and analyse how social action, social processes and social structures work.

Unit 2: Deviance and Crime

In this unit, students explore the concepts of deviance and crime. The study of these concepts from a sociological perspective involves ascertaining the types and degree of rule-breaking behaviour, examining traditional views of criminality and deviance and analysing why people commit crimes or engage in deviant behaviour. It also involves consideration of the justice system, how the understanding of crime and deviance has changed over time, and the relationship between crime and other aspects of a society, such as age and gender.

Unit 3: Culture and ethnicity

In this unit, students explore expressions of culture and ethnicity within Australian society in two different contexts – Australian Indigenous cultures, and ethnicity in relation to migrant groups.
In Area of Study 1, students critically explore the historical suppression of, and increasing public awareness of, Australian Indigenous cultures. They examine the past and its influence on subsequent generations, as well as contemporary factors that may support and/or limit increasing awareness of Australian Indigenous cultures.
In Area of Study 2, students investigate ethnicity as a key sociological category that plays an important role in social life. Individuals often define themselves, or others, as members of at least one ethnic group based on a common heritage that gives them a unique social identity. Ethnicity is not fixed and unchanging; instead, ethnic identities constantly evolve and are shaped through a variety of political, cultural and social forces.

Unit 4: Community, social movements and social change

In this unit, students explore the ways sociologists have thought about the idea of community and how the various types of community are experienced. They examine the relationship between social movements and social change.

ASSESSMENT – School-assessed coursework (Units 3&4); end of year exam

WHY STUDY SOCIOLOGY?

This subject is for students who:

- are curious about how society works
- enjoy thinking critically about social issues and everyday life
- are interested in understanding people, communities, and cultures
- want to explore topics like inequality, gender, race, family, crime, and social change
- are considering careers in areas like social work, education, law, health, or public policy
- would like to gain a deeper understanding of how social structures affect individuals and groups

CAREER OPTIONS ARE:

- Social Worker
- Community Development Officer
- Human Resources Specialist
- Youth or Family Support Worker
- Policy Analyst
- Probation or Correctional Officer
- Researcher or Data Analyst

SYSTEMS ENGINEERING

Rationale : VCE Systems Engineering helps students develop practical problem-solving, decision-making and design skills by exploring how mechanical and electrical systems work. Students apply engineering principles to real-world projects, gaining a deeper understanding of how technology is designed, built and improved. The subject also encourages students to consider important issues such as sustainability and the impact of engineering solutions on people and the environment.
Through the design, production, testing and evaluation of a complex engineering project, students develop valuable skills in project management, teamwork, organisation and innovation. VCE Systems Engineering provides a strong foundation for further study, apprenticeships, traineeships and careers in a wide range of engineering, manufacturing and technology-related industries, preparing students for future pathways in a rapidly evolving world.

Unit 1: Electrotechnological Systems Design
In this unit, students explore how electrical and electronic systems work and how they have developed over time. They learn about common electronic components, circuit design and sustainability, while considering the social, environmental and economic impact of engineering solutions.
Students apply the systems engineering process to design, build and test an electrotechnological system that addresses a sustainability challenge. Through hands-on learning, they develop skills in problem-solving, circuit design, testing and evaluation, while reflecting on ways to improve their designs.

Unit 2: Mechanical Systems Design
This unit focuses on how mechanical systems are used to solve real-world problems. Students investigate the six simple machines and learn how mechanical components work together in everyday systems. They also explore engineering developments, including Aboriginal and Torres Strait Islander perspectives and contributions to design.
Students use the systems engineering process to design and build a mechanical system that supports inclusive design principles. Along the way, they develop practical skills in engineering, energy use, applied mathematics and problem-solving while creating solutions that meet the needs of a diverse range of users.

ASSESSMENT TASKS (Units 1 & 2) – documentation of the systems engineering process using one or more of: a multimedia/simulation presentation / an electronic portfolio / a brochure / a poster / a written report / production work to create an electrotechnological system / practical demonstrations / an oral presentation.
Costs : $20-$150 per unit.

Unit 3: Ethical Systems Design
In Unit 3, students investigate the engineering principles behind integrated mechanical and electronic systems. They examine ethical considerations in design and explore different energy sources, including the benefits and challenges of renewable and non-renewable energy.
Students begin a major project in which they design and plan an integrated system that demonstrates ethical and sustainable engineering practices. This unit develops skills in innovation, project management, design planning and technical problem-solving.

Unit 4: Systems Production and Innovative Technologies
In the final unit, students complete the production of the integrated system they designed in Unit 3. They continue to apply project management, testing and evaluation processes while refining their system and documenting their work.
Students also explore emerging technologies and innovations that are shaping the future of engineering. By analysing new developments and their potential impact on society, students gain an understanding of how engineering continues to evolve and create opportunities for the future.

ASSESSMENT - school-assessed coursework (Units 3 & 4); School-assessed task – Units 3 & 4; end of year exam.

WHY STUDY SYSTEMS ENGINEERING?
To further develop students' understanding of the systems engineering process and use this to solve technological problems, as well as an awareness of associated challenges.

CAREER OPTIONS ARE:
People with these skills, and the ability to apply systems engineering processes, are in increasing demand as participants in teams that are engaged with complex and multidisciplinary projects.

Note:
School Assessed Task – Units 3 & 4. Students need to supply their own materials to design and make a product according to set criteria. Costs can range from $50-500 (for materials), depending on the style of the product.
Students will also need an electronic folio for the written component of the School Assessed Task.

VISUAL COMMUNICATION & DESIGN

Unit 1: Finding, reframing and resolving design problems
The main purpose of this unit is the introduction to the practices and processes used by designers to identify, reframe and resolve human-centred design problems. Students learn how design can improve life and living for people, communities and societies, and how understandings of good design have changed over time. They also delve into the phases of the Visual Communication Design (VCD) design process.

ASSESSMENT TASKS - reframing a problem through design briefs or presentation; a folio of work demonstrating the Develop and Deliver stages of the VCD design process to create visual language for a business or brand presentation of design concepts for a critique; and a a folio of work demonstrating the Develop and Deliver stages of the VCD design process, and using circular design practices to develop a sustainable object.

Unit 2: Design contexts and connections
This unit builds on understandings of visual communication practices developed in Unit 1. Students draw on conceptions of good design, human-centred research methods and influential design factors as they revisit the VCD design process, applying the model in its entirety. They adopt the practices of design specialists working in fields such as architecture, landscape architecture and interior design, while discovering the role of the interactive designer in the realm of user-experience.

ASSESSMENT TASKS - a folio of work demonstrating the stages of the VCD design process to present an environmental design solution; presentation and investigation of culturally appropriate design practices including representations of Aboriginal and Torres Strait Islander knowledge; creation of personal iconography through a range of design exercises; and a folio of work demonstrating the stages of the VCD design process to propose an interface for an interactive digital product, environment or service.

Unit 3: Visual communication in design practice
The main purpose of this unit is for students to explore and experience the ways in which designers work, while also analysing the work that they design. Students gain deep insights into the processes used to design messages, objects, environments and/or interactive experiences through a study of contemporary designers. They also explore the Discover, Define and Develop phases of the VCD design process to address a selected design problem and generate, test and evaluate design ideas so they can share these with others for critique. These design ideas are further developed in Unit 4.

Unit 4: Delivering design solutions
In this unit students explore and experience the ways in which designers work, while also analysing the work that they design. Students also identify the obligations and factors that influence the changing nature of professional design practice, while developing their own practical skills in relevant visual communication practices. Students study not only how designers work but how their work responds to both design problems and conceptions of good design. They interrogate design examples from one or more fields of design practice and explore the Discover, Define and Develop phases of the VCD design process to address a selected design problem.

ASSESSMENT - school-assessed coursework (Units 3 & 4); end of year exam.

WHY STUDY VISUAL COMMUNICATION & DESIGN?
To develop creative and practical skills through the exploration of drawing, design thinking, and digital media. Also, to learn how to communicate ideas and information visually across a range of fields.

CAREER OPTIONS ARE:
- Architecture
- Industrial and Multi-media Design
- Advertising and Marketing
- Fashion
- Interior Designer
- Graphic Designer
- Web Designer
- Illustrator

VET Automotive

At Murrayville Community College, AUR20720 Certificate II in Automotive Vocational Preparation is delivered through an auspice arrangement with AIET (121314).
Student enrolment is with the RTO, not the school.
Upon satisfactory completion of all units of this course, a student may attain a national qualification.
Student fees for this course, $215, is covered by Murrayville Community College.

This is a two-year, face-to-face course and enrolment in and/or completion of this qualification does not guarantee any employment outcomes.

AUR20720 Certificate II in Automotive Vocational Preparation covers the skills and knowledge required to perform minor maintenance and repair of an automotive vehicle. The range of technical skills and knowledge is limited. This qualification reflects the role of individuals who perform a limited range of tasks relating to identifying and inspecting mechanical and electrical components and systems of light vehicles and small single cylinder engines.

Units of competency include:

AURAEA002	Follow environmental and sustainability best practice in an automotive workplace
AURAFA103	Communicate effectively in an automotive workplace
AURAFA104	Resolve routine problems in an automotive workplace
AURASA102	Follow safe working practices in an automotive workplace
AURETK003	Operate electrical test equipment
AURETR006	Solder electrical wiring and circuits
AURETR103	Identify automotive electrical systems and components
AURETR115	Inspect, test and service batteries
AURLTA101	Identify automotive mechanical systems and components
AURTTA127	Carry out basic vehicle servicing operations
AURTTB007	Remove and replace brake assemblies
AURTTE007	Dismantle and assemble single cylinder four-stroke petrol engines
AURTTE008	Dismantle and assemble multi-cylinder four-stroke petrol engines
AURTTK102	Use and maintain tools and equipment in an automotive workplace
AURVTW010	Set up and use welding equipment

VCE VOCATIONAL MAJOR : Literacy

Unit 1

Area of Study 1 : Literacy for personal use
Students will read texts that serve a variety of purposes, from everyday content written to convey information, to texts written for specific workplaces or educational settings. Students will employ a variety of information strategies to develop their understanding of the purpose and key ideas within the written and spoken language.

Area of Study 2 : Understanding and creating digital texts
Students will read, view and interact with different digital texts and participate in learning activites to develop their capacity to explore and discuss their impact.

Unit 2

Area of Study 1 : Understanding issues and voices
Students will engage with a range of content from print, visual, aural and multimodal sources. Students will discuss how personal and vested interests, including those of particular vocations or workplaces, affect their own responses to an issue.

Area of Study 2 : Responding to opinions
Students consider arguments presented and critically analyse the language, evidence and logic of the arguments of others so that they can create their own response. In constructing their own responses, students select evidence that supports their viewpoint. Students learn to accurately reference and acknowledge the evidence they present.

Unit 3

Area of Study 1 : Accessing and understanding informational, organizational and procedural texts
Students will learn to recognize, analyse and evaluate the structures and semantic elements of informational, organizational and procedural texts as well as discuss and analyse their purpose and audience. Students will develop their confidence to deal with a range of technical content that they will encounter throughout adulthood, such as safety reports, public health initiatives, tax forms and advice, contracts, promotional videos and vocational and workplace texts.

Area of Study 2 : Creating and responding to organizational, informational or procedural texts
Students read and respond to a variety of technical content from a vocational, workplace or organizational setting of their choice, demonstrating understanding of how these texts inform and shape the organization they interact with.

Unit 4

Area of Study 1 : Understanding and engaging with literacy for advocacy
Students will consider which elements are important for creating a 'brand' and how different texts, images, products and multimedia platforms work together to produce one, central message to influence an audience.

Area of Study 2 : Speaking to advise or to advocate
In this area of study students will use their knowledge and understanding of language, context and audience to complete an oral presentation that showcases their learning.

VCE VOCATIONAL MAJOR : Numeracy

Unit 1
In Unit 1 students will develop their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use of appropriate technologies.

Area of Study 1	*Number*
Area of Study 2	*Shape*
Area of Study 3	*Quantity and measures*
Area of Study 4	*Relationships*

Unit 2
In Unit 2 students will develop and extend their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use of appropriate technologies.

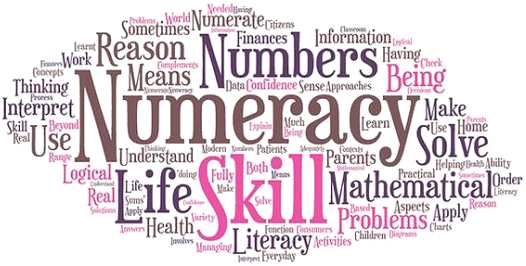
Area of Study 5	*Dimension and direction*
Area of Study 2	*Data*
Area of Study 3	*Uncertainty*
Area of Study 4	*Systematics*

Unit 3
In Unit 3 students will further develop and enhance their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use and evaluation of appropriate technologies.

Area of Study 1	*Number*
Area of Study 2	*Shape*
Area of Study 3	*Quantity and measures*
Area of Study 4	*Relationships*

Unit 2
In Unit 4 students will further develop, enhance and extend their numeracy practices to make sense of their personal, public and vocational lives. They will develop mathematical skills with consideration of their local, community, national and global environments and contexts, and an awareness and use evaluation and justification of appropriate technologies.

Area of Study 5	*Dimension and direction*
Area of Study 2	*Data*
Area of Study 3	*Uncertainty*
Area of Study 4	*Systematics*



VCE VOCATIONAL MAJOR : Personal Development

Unit 1 – Healthy Individuals
Students will investigate local health-promoting organisations and resources and play an active, participatory role in designing and implementing activities or mechanisms to improve health and wellbeing. This unit highlights the importance of critical and creative thinking and clear communication as individuals explore personal identity and the role of community.

Area of Study 1 : Personal Identity and Emotional Intelligence

Area of study 2 : Community health and wellbeing

Area of study 3 : Promoting a healthy life

Unit 2 – Connecting with community
This unit focuses on the benefits of community participation and how people work together effectively to achieve a shared goal. Students will reflect on relationships between community issues, social cohesion, and health and wellbeing, and the importance of clear information and communication.

Area of Study 1 : What is community?

Area of study 2 : Community cohesion

Area of study 3 : Engaging and supporting community

Unit 3 – Leadership and teamwork
This unit considers the role of interpersonal skills and social awareness in different settings and contexts. Students will examine leadership qualities and the characteristics of effective leaders and how these qualities can be applied to the achievement of goals within personal and community contexts.

Area of Study 1 : Social awareness and interpersonal skills

Area of Study 2 : Effective leadership

Area of Study 3 : Effective teamwork

Unit 4 – Community project
This unit focuses on student participation 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 project. Students will consider the key elements (such as emotional intelligence and effective team practices) and considerations (such as safety and ethics) when implementing a community project. Students will present the project to an appropriate audience of peers or community members and evaluate the effectiveness of the response to the issue.

Area of Study 1 : Planning a community project

Area of Study 2 : Implementing a community project

Area of Study 3 : Evaluating a community project

VCE VOCATIONAL MAJOR : Work Related Skills

Unit 1 – Careers and learning for the future
Students will investigate information relating to future employment, including entry-level pathways, emerging industries, and growth industries and trends, and evaluate the impact of pursuing employment in different industries. Students will reflect on this research in the context of their individual skills, capabilities and education and/or employment goals.

Area of Study 1 : Future careers

Area of Study 2 : Presentation of career and education goals

Unit 2 – Workplace skills and capabilities
In this unit, students will consider the distinction between essential employment skills, specialist and technical work skills and personal capabilities, and understand the importance of training and development to support the attainment and transferability of skills. Students will collect evidence and artefacts relating to their personal skills and capabilities and promote them through resumes, cover letters and interview preparation.

Area of Study 1 : Skills and capabilities for employment and further education

Area of Study 2 : Transferable skills and capabilities

Unit 3 – Industrial relations, workplace environment and practice
In this unit students will learn how to maintain positive working relationships with colleagues and employers, understanding the characteristics of a positive workplace culture and its relationship to business success. They will investigate key areas relating to workplace relations, including methods for determining pay and conditions, workplace bullying, workplace discrimination, workplace harassment and dispute resolution.

Area of Study 1 : Workplace wellbeing and personal accountability

Area of Study 2 : Workplace responsibilities and rights

Unit 4 – Portfolio preparation and presentation
Portfolios are a practical and tangible way for a person to communicate relevant skills, experiences and capabilities to education providers and future employers. In this unit students will develop and apply their knowledge and skills to portfolios, including the features and characteristics of a high quality physical and/or digital portfolio. The unit culminates in the formal presentation of a completed portfolio in a panel style interview and an evaluation of the end product.

Area of Study 1 : Portfolio development

Area of Study 2 : Portfolio presentation