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Introduction

The Victorian Certificate of Education (VCE), the Victorian Certificate of Education - Vocational Major (VCE (VM)) and the Victorian Pathways Certificate (VPC) are conducted under the auspices of the Victorian Curriculum and Assessment Authority. Completion of the VCE, VCE (VM) or VPC may lead to a variety of future options including employment and/or further study at TAFE or University.

The Victorian Certificate of Education - Vocational Major (VCE (VM)) and Victorian Pathways Certificate (VPC) are courses for senior students who want to pursue a pathway into TAFE, apprenticeships, further training or work. It recognises that the VCE certificate does not cater for all students and allows for a learning program to be designed with the students based on vocational and applied learning. These learning programs are based on the students' interests at school, outside the school and in their plans for future education or for a career.

Choosing an appropriate course can be a challenging task. This handbook is intended to assist students and parents explore the many options available at MacKillop College. Our guiding principle is to ensure each student achieves their best by recognising their own gifts and talents. We strongly encourage students entering the senior years of schooling to select subjects for which they have demonstrated a propensity and clear capability.

The VCE, VCE (VM) and VPC reflect the College's commitment to academic rigour, and we strive to achieve results for each student that exemplifies excellence for that student. To that end we will guide students into courses that are appropriate to them and will be proactive in ensuring their capacity to undertake selected studies or combinations of subjects prior to the commencement of their final years.

Students and parents/carers need to be aware that the move into senior secondary education has additional responsibilities for students and increased expectations. For example, skills such as time management and organisation will be dependent more on the student's own self- discipline and self-motivation than in previous year.

MacKillop College provides course selection and careers advice to all students. However, it is important that, before committing to a particular senior course, students and parents avail themselves of other information beyond this guide. These additional sources may include past and present students, current teachers, other parents, employer groups, tertiary institutions and career centres.

Please Note: The information contained in this Senior Pathways Handbook was correct at the time of printing.

Our Vision Statement

Celebrating all life

Challenging all people

Dreaming the new day

Our Mission Statement

MacKillop is a Catholic college in the Josephite tradition.

Inspired by the spirit of Saint Mary of the Cross MacKillop, we strive to:

- encourage individuals to reach their full potential as life-long learners by providing an innovative, challenging and collaborative learning and teaching environment in a rapidly evolving society
- enhance positive relationships in a supportive community by promoting justice and a sustainable future
- support wellbeing by affirming the intrinsic dignity of each individual, embracing diversity and empowering active citizenship
- foster leadership by empowering and developing all members of the school community
- witness to the presence of God amongst us by celebrating our Catholic heritage as a faith community

In this, we seek to be disciples of Jesus, our model for authentic humanity.

Our Educational Principles

Teaching and Learning
- A positive teaching and learning environment is dynamic and adaptive
- Lifelong learners challenge themselves
- Effective teaching is responsive to a rapidly evolving society

School Community
- A sustainable future is the responsibility of all community members
- Diversity, equity and justice form the basis of a supportive community
- Genuine partnerships between students, families, staff and the wider community promote a positive school environment

Student Wellbeing
- Each student is a global citizen called to respond to the challenges of their time
- Affirming the intrinsic dignity of each person is fundamental to student wellbeing
- An environment that models Catholic values enhances student wellbeing

Leadership and Management
- Leadership takes many forms; all are called to leadership
- Leadership encourages, nurtures and supports
- Effective management enables all members to engage fully in their leadership roles

Education in Faith
- All that we do gives witness to the presence of God
- All are invited to respond to God's call to bring hope to our world
- Our Catholic heritage is celebrated in the tradition of Saint Mary of the Cross MacKillop

Statement of Democratic Principles

MacKillop College is committed to the principles of a liberal democracy.

- We believe in an accountable, democratically elected government
- We respect and observe the rule of law and believe that no person is above the law
- We believe in equal rights for all before the law, regardless of race, ethnicity, religion, sexuality, gender or other attributes
- We believe not only in the freedom of religion, but also the need to practise tolerance and understanding of others' beliefs
- We believe in the value of freedom of speech and freedom of association, but also acknowledge that we have the responsibility not to abuse this freedom
- We believe in the values of openness and tolerance, and value and respect all members of the College community regardless of background

VALUES FOR AUSTRALIAN SCHOOLING

Care and Compassion
Care for self and others

Doing Your Best
Seek to accomplish something worthy and admirable, try hard, pursue excellence

Fair Go
Pursue and protect the common good where all people are treated fairly for a just society

Freedom
Enjoy all the rights and privileges of Australian citizenship free from unnecessary interference or control, and stand up for the rights of others

Honesty and Trustworthiness
Be honest, sincere and seek the truth

Integrity
Act in accordance with principles of moral and ethical conduct; ensure consistency between words and deeds

Respect
Treat others with consideration and regard, respect another person's point of view

Responsibility
Be accountable for one's own actions, resolve differences in constructive, non-violent and peaceful ways, contribute to society and to civic life, take care of the environment

Understanding, Tolerance and Inclusion
Be aware of others and their cultures, accept diversity within a democratic society, being included and including others

CHARACTER IS DESTINY
— George Eliot

Glossary of Terms

ATAR – Australian Tertiary Admissions Rank

Assessment Tasks – Tasks used to measure each student's level of achievement. Assessment tasks designated for Coursework must be part of the regular teaching and learning program and are completed mainly in class time.

Derived Exam Score – VCAA may approve the use of a calculated or anticipated exam score if a student is adversely affected during an examination period.

General Achievement Test (GAT) – All students undertaking VCE Units 3 & 4 will sit a General Achievement Test, which will be used to monitor school assessment and used in the moderation of external examinations.

Outcomes – Achievement requirements for a Unit of Study. Students are required to demonstrate achievement of all outcomes in the unit.

Quality Assurance – The process to assure the quality of delivery and consistency in interpretation of learning outcomes and relevant levels.

Satisfactory Completion – Satisfactory completion of all Units will be based on completion of all the outcomes prescribed for the Unit.

School Assessed Coursework (SAC) – Assessment tasks used to measure each student's level of achievement. Assessment tasks designated for Coursework must be part of the regular teaching and learning program and must be completed in class.

School Assessed Task (SAT) – Extended assessment tasks to be completed by students undertaking a Units 3 & 4 sequence in Applied Computing, *Art, Data Analytics, Media, Product Design & Technology (Textiles), Software Development and Visual Communication Design* only. Performance on each task will be summarised by a letter grade from A$^+$ to UG and reported to the VCAA. These tasks can be completed in both class and at home. If students are permitted to complete part of the task at home, the 'Authentication Record for School Assessed Tasks' needs to be completed on a regular basis.

School-Based Apprenticeship or Traineeship – An apprenticeship or traineeship undertaken in the VCE (VM), with at least one day a week spent on the job or in training during the normal school week.

Semester – Equivalent to half a school year.

Sequence of Units – Most studies are designed as a sequence of four units to be taken in each semester over two years. VCE Units 3 & 4 must be taken as a sequence.

Special Provision – Where illness or other factors affect performance, students may seek special provision.

Study – A sequence of half-year Units in a particular curriculum area, for example: English, Mathematics, Japanese and VCE (VM) Work Related Skills.

Study Design – The study design describes the units available within the Study and prescribes the objectives, areas of study, work requirements and assessment tasks.

Unit – A semester-length component of a Study.

VCAA – The Victorian Curriculum and Assessment Authority – responsible for curriculum, assessment, certification and administration of the VCE at Years 10, 11 and 12 levels in Victoria.

VCE (VM) – Victorian Certificate of Education (Vocational Major)

VCE – Victorian Certificate of Education.

VET – Vocational Education and Training.

VRQA – Victorian Registration and Qualifications Authority – responsible for the accreditation, registration and certification of all qualifications in Victoria.

VTAC – Victorian Tertiary Admissions Centre – Calculates and distributes the ATAR and processes tertiary entrances applications

VPC – Victorian Pathways Certificate

Victorian Certificate of Education

The Victorian Certificate of Education (VCE) is usually a two-year program of study.

The program is made up of semester length units (2 Terms each). At MacKillop, each student is expected to study at most 23 units over the course of their VCE years.

Year 11 Students will study **12 units** over two semesters.

Year 12 students will study at most **12 units** over two semesters.

In order to complete the VCE, students must satisfactorily complete:

a)   A minimum of 16 VCE units
b)   at least three units from the English Group, two of which must be a Unit 3 & 4 sequence
c)   an additional three Unit 3 & 4 sequences of studies other than English, which may include any number of English sequences once the English requirement has been met (including VCE VET Units 3 & 4 sequences)
d)   Minimum of 50 hours class time per unit (as per VCAA requirements).

VCE Subjects offered at MacKillop College

Accounting	LOTE – Italian
Applied Computing	LOTE – Japanese
Art Creative Practice	LOTE – French
Biology	Mathematical Methods
Australian History	Media
Business Management	Modern History
Chemistry	Music Performance
Dance	Outdoor and Environmental Studies
Data Analytics	Software Development
Drama	Physical Education
Economics	Physics
English	Politics
English Language	Product Design and Technology - Textiles
Environmental Science	Psychology
Food Studies	Religion and Society
Foundation Mathematics	Specialist Mathematics
General Mathematics	Texts and Traditions
Geography	Theatre Studies
Health and Human Development	Visual Communication Design
History – Empires	VET – Engineering Studies
History – Revolutions	VET – Music (Sound Production)
Legal Studies	VET – Sport and Recreation
Literature	

At MacKillop College, students are required to study Religious Education during each year of their VCE study. For students not studying either Religion and Society or Texts and Traditions, the Religious Education subject will be a school-based unit that is not accredited towards the VCE.

Victorian Certificate of Education (Vocational Major) – VCE (VM)

The Victorian Certificate of Education (Vocational Major) – VCE (VM) is a senior pathway option for Years 11 and 12 students grounded in applied and vocational learning. The VCE (VM) gives you realistic, work-related experience, as well as literacy and numeracy skills and the opportunity to build personal skills that are important for life and work. Like the Victorian Certificate of Education (VCE), it is a recognised senior secondary qualification. The VCE (VM) aims to provide students with the skills, knowledge and attitudes to make informed choices about pathways to work and further education. Students who do the VCE (VM) are likely to be interested in going onto training at a Technical and Further Education (TAFE) institute, starting an apprenticeship, or securing full-time employment after completing school.

The award of satisfactory achievement for a VCE (VM) unit is based on a decision that the student has attained a satisfactory result across all units required. Successful completion of all learning outcomes for a VCE (VM) unit may be demonstrated in one integrated assessment activity or spread over different activities.

To be awarded an S, students must demonstrate competence on more than one occasion and wherever possible in different contexts to make sure the assessment is consistent, fair, valid and reliable.

Compulsory Subjects for the VCE (VM)

a) Literacy and Numeracy Skills

All VCE learning programs must include literacy and numeracy subjects. This includes VCE (VM) Literacy to satisfy the literacy strand and either VCE (VM) Numeracy and/or VCE Mathematics to satisfy the numeracy strand.

b) Work Related Skills (WRS)

In order to develop 'employability' skills VCE (VM) students participate in a structured work placement. Students will also study units and modules that will help prepare them for work, these include Occupational Health and Safety (OHS) and job interview skills.

c) Personal Development Skills (PDS)

As part of the VCE (VM) learning program students must participate in community-based projects, voluntary work and/or structured activities that will help develop their self-confidence, teamwork skills and other fundamental capacities important for life and work.

d) Vocational Education and Training Delivered to Secondary Students (VETDSS)

A VCE (VM) learning program must include industry specific units from Vocational Education and Training (VET) programs or VCE VET. This may include a School Based Apprenticeship and Traineeship (SBAT).

e) Religious Education and Additional Studies

All students undertaking VCE (VM) are required to complete a unit of Religious Education and additional studies as shown below in the program structure

Program Structure of VCE (VM) at MacKillop

Year 11		Year 12	
Semester 1	Semester 2	Semester 1	Semester 2
VM Numeracy Unit 1	VM Numeracy Unit 2	VM Numeracy Unit 3	VM Numeracy Unit4
VM Literacy Unit 1	VM Literacy Unit 2	VM Literacy Unit 3	VM Literacy Unit 4
VM WRS Unit 1	VM WRS Unit 2	VM WRS Unit 3	VM WRS Unit 4
VM PDS Unit 1	VM PDS Unit 2	VM PDS Unit 3	VM PDS Unit 4
VET – Small Business	Religious Education	Religious Education	VET – Small Business
Workplace Preparation	Workplace Preparation	Workplace Preparation	Workplace Preparation

Workplace Preparation in the VCE (VM) consists of:
- Structured Workplace Learning (SWL)
- Short Courses
- Project Preparation

VCE (VM) – Assessment and Reporting

A range of assessment methods may be applied. These include:

- a portfolio of accumulated evidence
- oral or written reports
- evidence accumulated through project or program participation
- awards from recognised programs
- self-assessment inventories
- evidence of information and communications technology, including Internet usage
- teacher observation and/or checklists

The VCE (VM) learning program at MacKillop College provides opportunities for students to demonstrate achievement of learning outcomes. At MacKillop College, students are required to study at least one unit of Religious Education during each year of their VCE (VM) study. For students in Year 11 and Year 12, the Religious Education subject will be a school-based unit that is not accredited towards the VCE (VM).

Victoria Pathways Certificate (VPC)

The Victorian Pathways Certificate (VPC) is an accredited foundation secondary qualification. It is designed to develop and extend pathways for young people while providing flexibility for different cohorts. The VPC provides an enriched curriculum and excellent support for students to develop the skills, capabilities and qualities for success in personal and civic life. Upon completing the VPC, students can make informed choices about future employment or education pathways. Meaningful pathways are created by linking student aspirations and future employment goals to the choice of accredited curriculum, as well as connecting VPC learning programs to work and industry experiences and active participation in the community.

The VPC is suitable for students whose previous schooling experience may have been disrupted for various reasons, including students with additional needs. Students will gain the skills, knowledge, values and capabilities to make informed choices about pathways into a senior secondary qualification, entry-level vocational education and training (VET) course or employment.

The curriculum accommodates student aspirations and future employment goals. VPC learning programs connect students to industry experiences and active participation in the community. Through participation in the VPC, students will gain the necessary foundation skills to allow them to make a post-schooling transition.

Purpose of the VPC

The purpose of the VPC is to:

- equip students with the skills, knowledge, values and capabilities to be active and informed citizens, lifelong learners and confident and creative individuals
- empower students to make informed decisions about the next stages of their lives through authentic workplace experiences, providing them with the best opportunity to achieve their personal goals and aspirations in a rapidly changing world.

Compulsory Subjects for the VCE (VM)

a) Literacy and Numeracy Skills

All VPC learning programs includes VPC Literacy to satisfy the literacy strand and VPC Numeracy to satisfy the numeracy strand.

b) Work Related Skills (WRS)

In order to develop 'employability' skills VPC students participate in a work experience. Students will also study units and modules that will help prepare them for work, these include Occupational Health and Safety (OHS) and job interview skills.

c) Personal Development Skills (PDS)

As part of the VPC learning program students must participate in community-based projects, voluntary work and/or structured activities that will help develop their self-confidence, teamwork skills and other fundamental capacities important for life and work.

d) Vocational Education and Training Delivered to Secondary Students (VETDSS)

A VPC learning program must include industry specific units from Vocational Education and Training (VET) programs or VCE VET. This will include VET Workplace Skills.

e) Religious Education and Additional Studies

All students undertaking VPC are required to complete a unit of Religious Education and additional studies as shown below in the program structure

Structure of VPC at MacKillop

Year 11		Year 12	
Semester 1	Semester 2	Semester 1	Semester 2
VPC Numeracy Unit 1	VPC Numeracy Unit 2	VM Numeracy Unit 1	VM Numeracy Unit 2
VPC Literacy Unit 1	VPC Literacy Unit 2	VPC Literacy Unit 3	VPC Literacy Unit 4
VPC WRS Unit 1	VPC WRS Unit 2	VPC WRS Unit 3	VPC WRS Unit 4
VPC PDS Unit 1	VPC PDS Unit 2	VM PDS Unit 1	VM PDS Unit 2
VET Workplace Skills I	VET Workplace Skills II	Religious Education	VET – Small Business
Workplace Preparation	Religious Education	Workplace Preparation	Workplace Preparation

Workplace Preparation in the VPC consists of:

- Work Experience Process
- Short Courses
- Project Preparation
- Job Camp

Compulsory Subjects for the VCE

English

English is a compulsory study as part of the VCE. The possible pathways in English are shown below.

More detailed information about the English subjects can be found in the Senior Pathways Subject Handbook.

Year 10	Year 11	Year 12
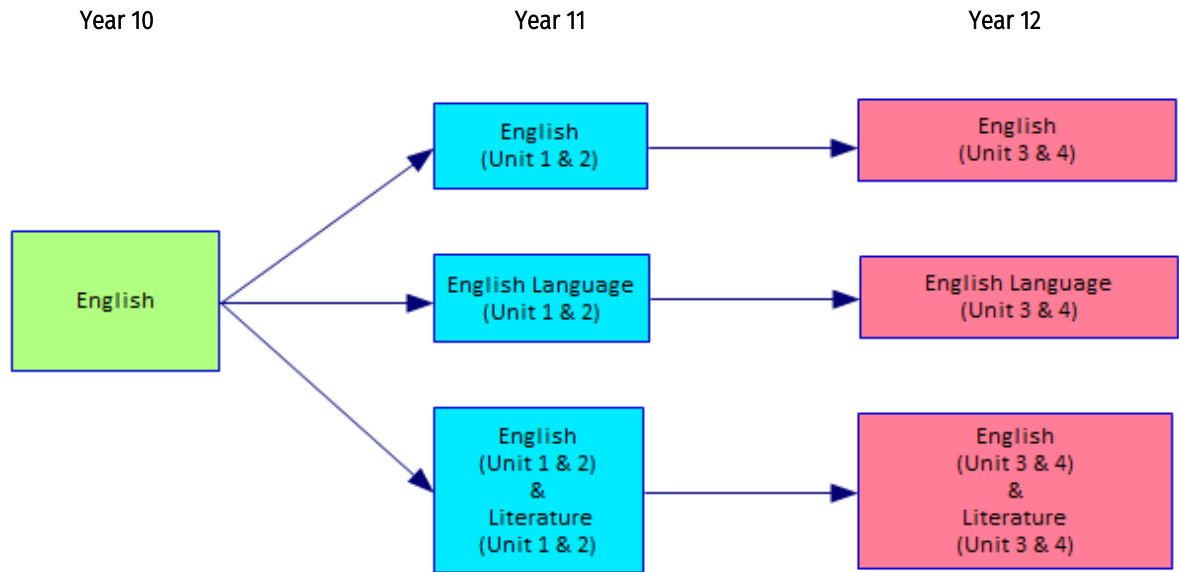
Religious Education

All VCE and VCE (VM) or VPC students at MacKillop College undertake the study of Religious Education. The possible pathways are shown below. All Unit 3 & 4 sequences are eligible for a Study Score which will count towards the final ATAR score. More detailed information about the Religious Education subjects can be found in this Handbook.

Year 10	Year 11	Year 12
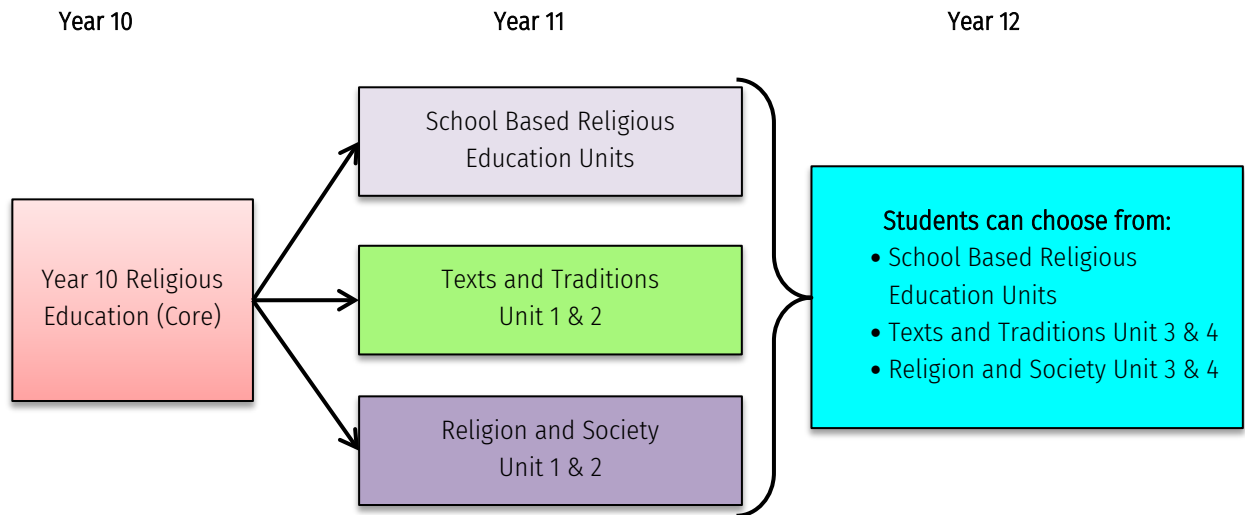
Prerequisite Criteria for Unit 1 & 2 Subjects

The following provides a list of prerequisites subjects that students must successfully complete before being eligible to study the appropriate Unit 1 & 2 Subject.

Learning Area	Unit 1 & 2 Subject	Prerequisite
English	-	-
Mathematics	Mathematical Methods Specialist Mathematics	Year 10 Maths Methods
Science	-	-
Health & Physical Education	-	-
Humanities	-	-
Languages	Italian	Year 10 Italian
	French	Year 10 French
	Japanese	Year 10 Japanese
The Arts – Performing	Music Performance	Year 10 Music or AMEB Grade 3 Music Language and Practical Equivalent
	Dance	Dance Audition
The Arts – Visual	-	-
Religious Education	Religion and Society Texts and Traditions	Subject Teacher Recommendation
Digital Technologies and Computing	-	-
Design and Technologies	-	-
Vet	-	-

Prerequisite Criteria for Unit 3 & 4 Subjects

The following provides a list of prerequisites subjects that students must successfully complete before being eligible to study the appropriate Unit 3 & 4 Subject.

Learning Area	Unit 3 & 4 Subject	Prerequisite
English	English Language	English Language Unit 1 & 2
	Literature	Literature Unit 1 & 2
Mathematics	General Maths	General Mathematics 1 & 2
		Mathematical Methods Unit 1 & 2
	Mathematical Methods	Mathematical Methods Unit 1 & 2
	Specialist Mathematics	Mathematical Methods Unit 1 & 2
		Specialist Mathematics Unit 1 & 2
Science	Chemistry	Chemistry Unit 1 & 2
	Physics	Physics Unit 2
Humanities	Accounting	Accounting Unit 1
	Economics	Economics Unit 1 &/or 2
Health & Physical Education	-	-
Languages	French	French Unit 1 & 2
	Italian	Italian Unit 1 & 2
	Japanese	Japanese Unit 1 & 2
The Arts – Performing	Dance	Dance Unit 1 &/or 2
	Drama	Drama Unit 1 &/or 2 **or** Theatre Studies Unit 2
	Music Performance	Music Performance 1 & 2
	Theatre Studies	Drama Unit 1 &/or 2 **or** Theatre Studies Unit 1 &/or 2
The Arts – Visual	Art Creative Practice	Art Creative Practice Unit 1 &/or 2
	Media	Media Unit 1 &/or 2
	Visual Communication Design	Visual Communication Design Unit 1 &/or 2
Religious Education	Religion and Society	Religion and Society 1 &/or 2 **or** Texts and Traditions 1 &/or 2
	Texts and Traditions	Texts and Traditions 1 &/or 2
Digital Technologies and Computing	Data Analytics	Applied Computing Unit 1
	Software Development	Applied Computing Unit 1
Design and Technologies	Product Design & Technology: Textiles	Product Design & Technologies Unit 1 &/or 2
	Food Studies	Food Studies Unit 1 &/or 2
VET	Music (Sound Production)	Year 11 Music (Sound Production)
	Sport & Recreation	Year 11 Sport & Recreation
VCE (VM)	Literacy	Literacy Unit 1 & 2
	Numeracy	Numeracy Unit 1 & 2
	Work Related Skills	Work Related Skills Unit 1 & 2
	Personal Development Skills	Personal Development Skills Unit 1 & 2

The Structure of VCE Mathematics

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

The final subject selection in the Mathematics Learning Area will be determined by consultation within the Learning Area and in conjunction with individual students and their parents/carers.

The study of mathematics at MacKillop College is made up of the following units:
- Foundation Mathematics Units 1 & 2
- Foundation Mathematics Units 3 & 4
- General Mathematics Units 1 & 2
- General Mathematics Units 3 & 4
- Mathematical Methods Units 1 & 2
- Mathematical Methods Units 3 & 4
- Specialist Mathematics Units 1 & 2
- Specialist Mathematics Units 3 & 4

Courses Available

The following chart gives the possible Mathematics courses available to students.
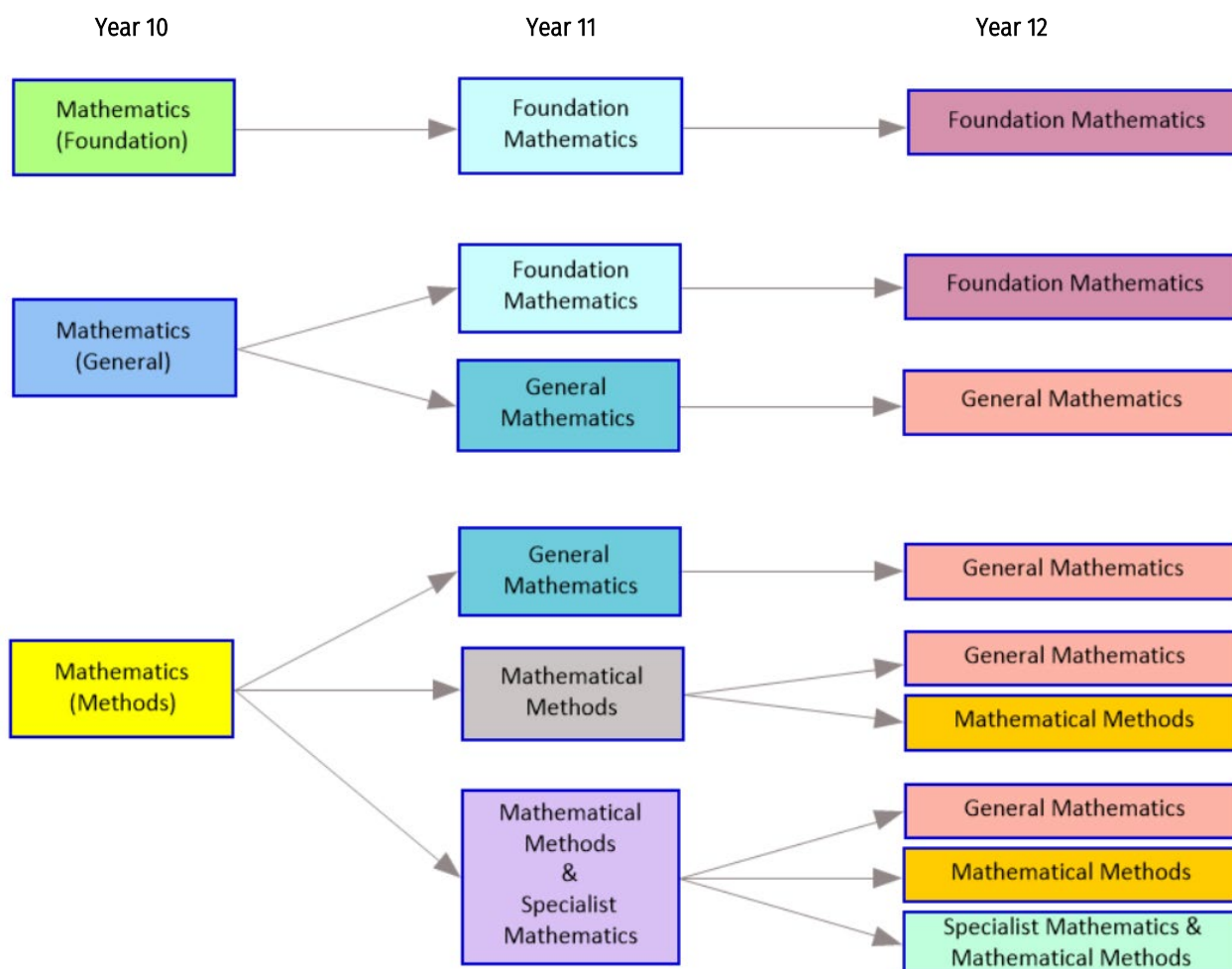
Accounting

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. In this, 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. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of the Conceptual Framework and financial indicators to measure business performance, and take into account the range of ethical considerations faced by business owners when making decisions, including financial, social and environmental.

Areas of Study

1 The role of accounting

In this area of study, students investigate the reasons for establishing a business, and possible alternatives to operating a business. They explore types of business ownership, factors that lead to the success or failure of a business, sources of business finance and ethical considerations. They develop an understanding of the role and importance of accounting in operating a business, and consider how accounting is used to provide information for making operational and investment decisions.

Outcome 1: *On completion of this unit, the student should be able to describe the resources required to establish and operate a business, and select and use accounting reports and other information to discuss the success or otherwise of the business.*

2 Recording financial data and reporting accounting information for a service business

In this area of study, students investigate the role of accounting in generating financial data and accounting information. They use the accrual method for determining profit for a service business operating as a sole proprietor with cash and credit transactions. Students use both manual methods and ICT to record financial data and report accounting information. They apply accounting assumptions and qualitative characteristics, and use business documents and indicators to measure business performance in order to consider the success or failure of the business.

Outcome 2: *On completion of this unit, the student should be able to identify and record financial data, report and explain accounting information for a service business, and suggest and apply appropriate financial and non-financial indicators to measure business performance.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Students will use ICT in at least two of the assessment tasks.

Assessment tasks may include:
- Folio of exercises (Manual and ICT based)
- Assignment (Manual and ICT based)
- Structured Questions (Manual and ICT based)
- Case Studies (Manual and ICT based)
- Classroom presentations (Manual and ICT based)
- A feasibility investigation of a business venture (Manual and ICT based)
- Tests
- Unit exam

Please Note:

Students must satisfactorily complete Unit 1 Accounting before undertaking Units 3 & 4.

Accounting

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. Where appropriate, the accounting procedures developed in each area of study should incorporate application of the Conceptual Framework, financial indicators and ethical considerations for business owners when making business decisions, including financial, social and environmental.

Areas of Study

1   Accounting for Inventory

The strategic management of inventory is a key factor in the success or failure of a trading business. In this area of study, students investigate use of both the First-In, First-Out (FIFO) and Identified Cost inventory cost assignment methods to record and report the movements of inventory through the business. Using both methods, students discuss the effect of relevant financial and non-financial factors, including ethical considerations, on the outcomes of decisions taken in relation to inventory.

Outcome 1: *On completion of this unit, the student should be able to be able to record and report for inventory and discuss the effect of relevant financial and non-financial factors, and ethical considerations, on the outcome of business decisions.*

2   Accounting for and managing accounts receivable and accounts payable

In this area of study students record and report transactions relating to accounts receivable and payable. They examine strategies for managing credit transactions and use indicators, such as accounts receivable and accounts payable turnover, to analyse decisions related to these areas. Students also take account of ethical considerations involved in managing accounts receivable and accounts payable and the effects of these on business performance.

Outcome 2: *On completion of this unit the student should be able should be able to record and report for accounts receivable and accounts payable, and analyse and discuss the effect of relevant decisions on the performance of the business including the influence of ethical considerations.*

3   Accounting for and managing non-current assets

In this area of study, students develop an understanding of the accounting processes for non-current assets and the issues that can arise when determining a valuation for a non-current asset. Students calculate and apply depreciation using the straight-line method and undertake recording and reporting of depreciation.

Outcome 3: *On completion of this unit, the student should be able to record and report for non-current assets and depreciation.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Students will use ICT in at least two of the assessment tasks. Assessment tasks may include:

- Folio of exercises (Manual and ICT based)
- Assignment (Manual and ICT based)
- Structured Questions (Manual and ICT based)
- Case Studies (Manual and ICT based)
- Classroom presentations (Manual and ICT based)
- A feasibility investigation of a business venture (Manual and ICT based)
- Tests
- Unit exam

Please Note:

Students must satisfactorily complete Unit 1 Accounting before undertaking Units 3 & 4.

Accounting

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 effect 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.

Areas of Study

1 Recording and analysing financial data

In this area of study, students focus on identifying and recording financial data for a business. They use double entry accounting to record data and generate accounting information in the form of accounting reports and graphical representations. This information is used to assist the owner in making informed decisions about the operation of the business. Students should also consider strategies to improve the performance of the business, taking into account the ethical considerations relevant to the business owner.

Outcome 1: *On completion of this unit, the student should be able to record financial data using a double entry system; explain the role of the General Journal, General Ledger and inventory cards in the recording process; and describe, discuss and analyse various aspects of the accounting system, including ethical considerations.*

2 Preparing and interpreting accounting reports

Students develop their understanding of the accounting processes and complete those processes that are applicable to the end of a reporting period for a trading business. They apply the accrual method of accounting to the preparation of accounting reports and draw a distinction between cash and profit, considering the implications of these differences when using reports to make decisions. Students undertake an analysis of accounting reports and interpret the information, taking into account relevant ethical considerations, in order to evaluate the performance of the business.

Outcome 2: *On completion of this unit, the student should be able to record transactions and prepare, interpret and analyse accounting reports for a trading business.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Structured questions (Manual and ICT based)
- Folio of exercises (Manual and ICT based)
- A case study (Manual and ICT based)
- A report (Written, oral or ICT based)

Accounting

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 process with the inclusion of balance day adjustments and alternative depreciation methods. They investigate both the role and 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. From this evaluation, students suggest strategies to business owners to improve business performance.

Areas of Study

1   Extension of recording and reporting

In this area of study, students further develop their understanding of the recording and reporting of financial data in the General Journal and General Ledger by focusing on balance day adjustments and the alternative methods of depreciating for non-current depreciable assets. Students prepare accounting reports using manual methods and ICT. They consider the effect of balance day adjustments on the accounting reports, and the implications of using alternative methods of depreciation on the accounting reports and on the performance of the business. They also examine ethical considerations that may affect the recording and reporting of financial data and business performance.

Outcome 1: *On completion of this unit, the student should be able to record financial data and balance day adjustments using a double entry system, report accounting information using an accrual-based system and evaluate the effect of balance day adjustments and alternative methods of depreciation on accounting reports.*

2   Budgeting and decision-making

Students prepare and analyse budgeted accounting reports, both manually and using ICT, and suggest strategies to improve the performance of the business. They also discuss and evaluate the ethical considerations associated with business decision-making and business improvement.

Outcome 2: *On completion of this unit, the student should be able to prepare budgeted accounting reports and variance reports for a trading business using financial and other relevant information, and model, analyse and discuss the effect of alternative strategies on the performance of a business.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Structured questions (Manual and ICT based)
- Folio of exercises (Manual and ICT based)
- A case study (Manual and ICT based)
- A report (written, oral or ICT based)

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Applied Computing

Technology continues to evolve rapidly, providing opportunities for enterprising individuals to create new technologies and innovative uses for existing technologies.

Applied Computing provides students with practical opportunities to create digital solutions for real-world problems in a range of settings. This study is underpinned by four key concepts: digital systems, data and information, approaches to problem solving and interactions and impact.

Applied Computing provides a pathway to further studies in areas such as: cybersecurity, games development, ICT, networks, data analytics, business analysis, computer science, data science, data management, robotics, software engineering and telecommunications and other careers relating to digital technologies.

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.

In Area of Study 1, as an introduction to data analytics, students respond to a teacher-provided analysis of requirements and designs to identify and collect data in order to present their findings as data visualisations. They present work that includes database, spreadsheet and data visualisations solutions. In Area of Study 2 students select and use a programming language to create a working software solution. Students prepare, document and monitor project plans and engage in all stages of the problem-solving methodology.

Areas of Study

1   Data analysis

Software tools will be used for the collection, interpretation and manipulation of data to draw conclusions and create data visualisations that represent findings. In this area of study, students will examine the features of different design tools to represent the functionality and appearance of software solutions. You will interpret designs and create databases, spreadsheets and data visualisations solutions using the data collected.

Outcome 1: On completion of this unit, the student should be able to acquire, secure and interpret data and design and develop a graphic solution that communicates the findings on an investigation.

2   Programming

In this area of study, students will use a programming language (Visual basic) to create a working software solution in response to teacher-provided solution requirements. You will apply the problem-solving stages of design, development and evaluation to develop the solution. You will apply methods and techniques for creating a working software solution using a range of processing features and data structures. You will apply testing and debugging techniques to ensure the software solution works as intended.

Outcome 2: On completion of this unit the student should be able to interpret teacher-provided solution requirements to design, develop and evaluate a software solution using a programming language.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.
Assessment for all units of Computing may include any of the following:

- Folio of exercises
- Software solution
- A report in written or multimedia format
- Visual, multimedia or oral presentations
- A case study with structured questions
- Tests

Please Note:

Students must satisfactorily complete at least Unit 1 of Applied Computing before undertaking Data Analytics Units 3 & 4 or Software Development Units 3 & 4.

Applied Computing

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.

In Area of Study 1 students work collaboratively and select a topic for further study to create an innovative solution in an area of interest. The innovative solution can be presented as a proof of concept, a prototype or a product. Students engage in all areas of the problem-solving methodology. In Area of Study 2, as an introduction to cybersecurity, students investigate networks and the threats, vulnerabilities and risks to data and information. They propose strategies to protect the data accessed using a network.

Areas of Study

1   Innovative solutions

In this area of study, students will work collaboratively to develop an innovative solution to an identified need or opportunity. You will apply all stages of the problem-solving methodology to investigate the use of digital devices and emerging technologies and their applications. The innovative solution may take the form of a proof of concept, prototype or product.

Outcome 1: *On completion of this unit the student should be able to, in collaboration with other students, analyse, design, develop and evaluate an innovative solution to an identified need or opportunity involving a digital system.*

2   Network security

In this area of study, students will investigate how networks enable local and global data and information exchange. You will examine the hardware and software components and procedures required to connect and maintain wired, wireless and mobile communications technology. You will apply this knowledge to design a Local Area Network (LAN), describe its components and explain the transmission of data and information in this network. You will develop an understanding of cybersecurity issues when you investigate threats, vulnerabilities and risks to data and information stored within and transmitted across networks and propose strategies for reducing security risks.

Outcome 2: *On completion of this unit the student should be able to respond to a teacher-provided case study to examine the capabilities and vulnerabilities of a network, design a network solution, discuss the threats to data and information, and propose strategies to protect the security of data and information.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.
Assessment for all units of Computing may include any of the following:

- Folio of exercises
- Software solution
- A report in written or multimedia format
- Visual, multimedia or oral presentations
- A case study with structured questions
- Tests

Please Note:

Students must satisfactorily complete at least Unit 1 of Applied Computing before undertaking Data Analytics Units 3 & 4 **or** Software Development Units 3 & 4.

Applied Computing

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.

In *Area of Study 1* students respond to teacher-provided solution requirements and designs. Students develop data visualisations and use appropriate software tools to present findings. Appropriate software tools include database, spreadsheet and data visualisation software.

In *Area of Study 2* students propose a research question, prepare a project plan, collect and analyse data, and design infographics or dynamic data visualisations.

Areas of Study

1   Data Analytics

In this area of study, students will access, select and extract authentic data from large repositories. In response to teacher-provided solution requirements and designs, you will manipulate data to present findings as data visualisations. You will develop software solutions using database, spreadsheet and data visualisation software.

Outcome 1: *On completion of this unit the student should be able to respond to teacher-provided solution requirements and designs to extract data from large repositories, manipulate and cleanse data and apply a range of functions to develop software solutions to present findings.*

2   Data Analytics: analysis and design

In this area of study students will determine and propose a research question and collect and analyse data. You will use a range of methods to collect data for analysis. You will generate design ideas for creating a database and/or spreadsheet solution, and infographics or dynamic data visualisation to present findings.

Outcome 2: *On completion of this unit the student should be able to propose a research question, formulate a project plan, collect and analyse data, generate alternative design ideas and represent the preferred design for creating infographics or dynamic data visualisations.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.

Assessment for all units of Computing may include any of the following:

- Folio of exercises
- Software solution
- A report in written or multimedia format
- Visual, multimedia or oral presentations
- A case study with structured questions
- Tests

Applied Computing

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.

In Area of Study 1 students apply the problem-solving stages of development and evaluation to develop their preferred design prepared in Unit 3, Area of Study 2, into infographics or dynamic data visualisations, and evaluate the solutions and project plan.

Areas of Study

1   Data analytics: development and evaluation

In this area of study, students will develop the design prepared in Unit 3 into infographics or dynamic data visualisations that address your research topic or question by applying the problem-solving stages of development and evaluation. Students will use software tools and functions of database and/or spreadsheet software and data visualisation software to support the types of data being manipulated to transform the designs into infographics or dynamic data visualisations.

Outcome 1: *On completion of this unit the student should be able to develop and evaluate infographics or dynamic data visualisations that present findings in response to a research question, and assess the effectiveness of the project plan in monitoring progress.*

2   Cybersecurity: data and information security

In this area of study, students will focus on data and information security and its importance to an organisation. You will investigate security strategies used by an organisation to manage the storage, communication and disposal of data and information in their networked environment. You will examine threats to this data and information, and evaluate the methods an organisation uses to protect their data and information. You will consider the consequences for an organisation that fails to protect their data and information and recommend strategies to reduce threats to data and information, taking into account key legal requirements and any ethical issues faced by the organisation.

Outcome 2: *On completion of this unit the student should be able to respond to a teacher-provided case study to investigate the current data and information security strategies of an organisation, examine the threats to the security of data and information, and recommend strategies to improve current practices.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.

Assessment for all units of Computing may include any of the following:

- Folio of exercises
- Software solution
- A report in written or multimedia format
- Visual, multimedia or oral presentations
- A case study with structured questions
- Tests

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	10%
Unit 4 School Assessed Coursework	10%
School Assessed Task for Unit 3 Outcome 2 and Unit 4 Outcome 1	30%
Unit 3 & 4 Examination	50%

Applied Computing

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.

In Area of Study 1 students respond to teacher-provided solution requirements and designs and develop a set of working modules through the use of a programming language. Students examine a simple software requirements specification and a range of software design tools in order to apply specific processing features of a programming language to create working modules. In Area of Study 2 students analyse a need or opportunity, select an appropriate development model, prepare a project plan, develop a software requirements specification and design a software solution.

Areas of Study

1   Software development: programming

In this area of study, students will examine the features and purposes of different design tools to accurately interpret the requirements and designs for developing working software modules. You will use a programming language and undertake the problem-solving activities of manipulation (coding), validation, testing and documentation in the development stage. Validation and testing techniques will be applied to ensure modules operate as intended and internal documentation will be written to explain the function of the modules.

Outcome 1: *On completion of this unit the student should be able to interpret teacher-provided solution requirements and designs, and apply a range of functions and techniques using a programming language to develop and test working software modules.*

2   Software development: analysis and design

In this area of study, students will analyse a need or opportunity for a software solution and construct the framework for the development of the solution (design). Analysis tools and techniques will be used to depict relationships between data, users and digital systems and to document the solution requirements, constraints and scope as a software requirements specification. You will generate and document two or three design ideas for creating a solution.

Outcome 2: *On completion of this unit the student should be able to analyse and document a need or opportunity, justify the use of an appropriate development model, formulate a project plan, generate alternative design ideas and represent the preferred solution design for creating a software solution.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.
Assessment for all units of Computing may include any of the following:

* Folio of exercises
* Software solution
* A report in written or multimedia format
* Visual, multimedia or oral presentations
* A case study with structured questions
* Tests

Applied Computing

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.

In Area of Study 1 students apply the problem-solving stages of development and evaluation to develop their preferred design prepared in Unit 3, Area of Study 2, into a software solution and evaluate the solution, chosen development model and project plan. In Area of Study 2 students examine the security practices of an organisation and the risks to software and data during the development and use of the software solutions. Students evaluate the current security practices and develop a risk management plan.

Areas of Study

1   Software development: development and evaluation

In this area of study, students will develop an efficient and effective software solution that meets an identified need or opportunity. You will use testing techniques, such as usability tests to evaluate your solution and ensure the software solution meets requirements.

Outcome 1: *On completion of this unit the student should be able to develop and evaluate a software solution that meets requirements, evaluate the effectiveness of the development model and assess the effectiveness of the project plan.*

2   Cybersecurity: software security

Organisations are increasingly dependent on the use of software to achieve their goals and objectives. In this area of study, students will focus on security risks to software and data during the software development process and throughout the use of the software solution by an organisation. You will analyse and evaluate the security of current software development practices, examine risks to software and data, and consider the consequences of implementing software with ineffective security strategies. Physical and software controls, security vulnerabilities, web application and third-party software risks will be investigated. You will recommend risk management strategies to improve current practices, taking into account key legal requirements and ethical issues faced by an organisation.

Outcome 2: *On completion of this unit the student should be able to respond to a teacher-provided case study to examine the current software development security strategies of an organisation, identify the risks and the consequences of ineffective strategies and recommend a risk management plan to improve current security practices.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for each unit of study.
Assessment for all units of Computing may include any of the following:

- Folio of exercises
- Software solution
- A report in written or multimedia format
- Visual, multimedia or oral presentations
- A case study with structured questions
- Tests

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	10%
Unit 4 School Assessed Coursework	10%
School Assessed Task for Unit 3 Outcome 2 and Unit 4 Outcome 1	30%
Unit 3 & 4 Examination	50%

Art Creative Practice

Unit 1: Interpreting artworks and exploring the Creative Practice

In Unit 1 students use Experiential learning in Making and Responding to explore ideas using the Creative Practice. As the artist and audience, students consider their connection to artworks, and how their communication of ideas and presentation of artworks challenge, shape and influence viewer or audience perspectives.

They focus on the making of art and examine how artists communicate ideas and meaning in artworks. They examine artists in different societies, cultures and historical periods and develop their own interpretations and viewpoints about the meanings and messages of artworks. They explore how artists create new ways of thinking and representation, while developing their own art practice.

Areas of Study

1   Artists, artworks and audiences

In this area of study students are introduced to the Structural and the Personal Lenses by researching and analysing three artists, their practices and their artworks. They analyse one artwork by each artist and interpret meanings and messages using the Structural and Personal Lenses. In doing so, students will discover how the Structural and Personal Lenses can enhance their understanding of artworks and the way they reflect the artist's interests, experiences and thinking. The students also develop an understanding of how the interpretation of meanings and messages is influenced by the personal experiences of the viewer or audience and the context of the artwork. They also learn how to use evidence from artworks and a range of sources to support their personal interpretation and point of view.

Outcome 1: On completion of this unit the student should be able to discuss the practices of three artists and apply the Structural Lens and the Personal Lens to analyse and interpret one artwork by each artist.

2   The Creative Practice

In this area of study students are introduced to the Creative Practice through Experiential learning activities guided by the teacher. Students explore at least three art forms. They respond to a range of artworks, ideas and the practices of artists through experimentation and exploration. They build skills using materials, techniques and processes, and explore areas of personal interest to develop and make visual responses. Students investigate the practices of selected artists as inspiration for their personal visual responses. From their personal investigation of artists and their practices, students develop a range of visual responses through a series of tasks. Students also develop their visual language by experimenting, exploring ideas, and using materials, techniques and processes.

Outcome 2: On completion of this unit the student should be able to use the Creative Practice to develop and make visual responses informed by their exploration of personal interests and ideas.

3   Documenting and reflecting on the Creative Practice

Students develop their art practice by responding to the ways artists conceptualise, develop and make their artworks. They provide annotated documentation of their experiences in Making and Responding in a form appropriate to their art practice. Students reflect on their research and exploration undertaken in Area of Study 2 and understand that evaluation and documentation are integral components of the Creative Practice. They document the visual responses to the ideas they have explored, their creative and critical thinking, and their trials and experimentation with materials and techniques.

Outcome 3: On completion of this unit the student should be able to document and evaluate the components of the Creative Practice used to make personal visual responses.

Assessment

Assessment tasks may include:
- an extended written response
- short-answer responses supported by visual references
- an annotated visual report
- a presentation using digital technologies such as an online presentation or interactive website
- production of a range of personal visual responses to a selection of set tasks, showing the exploration of ideas, materials and techniques in at least three art forms
- documentation of Creative Practice, including annotated personal visual responses to a selection of set tasks.

Art Creative Practice

Unit 2: Interpreting artworks and developing the Creative Practice

In Unit 2 students use Inquiry learning to investigate the artistic and collaborative practices of artists. They use the Cultural Lens, and the other Interpretive Lenses as appropriate, to examine artworks from different periods of time and cultures, and to explore the different ways that artists interpret and communicate social and personal ideas in artworks Students explore the collaborative practices of artists and use the Creative Practice to make and present artworks. They develop visual responses based on their investigations, exploring the way historical and contemporary cultural contexts, ideas and approaches have influenced the artworks and the practices of the artists they investigate, as well as their own art practice. Throughout Unit 2, students examine the importance of the social and cultural contexts of artworks and analyse the varying social functions that art can serve. They also investigate how artworks can be created as forms of expression for specific social and cultural contexts.

Areas of Study

1   The artist, society and culture

In this area of study students focus on the ways in which art reflects and communicates the values, beliefs and traditions of the societies in which it was created. They will apply the Cultural Lens to study the practices of at least three artists from different cultures and times. Students may focus their research on one or more selected themes to compare artists, their practices and their artworks. Students must apply the Cultural Lens, and the other Interpretive Lenses as appropriate, in their analysis and interpretation of one artwork by each of the artists.

Outcome 1: On completion of this unit the student should be able to use the Cultural Lens, and the other Interpretive Lenses as appropriate, to analyse and compare the practices of artists and artworks from different cultures and times.

2   The collaborative Creative Practice

In this area of study students continue to develop their art practice as they explore collaborative practices to make and present artworks. Collaborative practice can include working with other students to create a collective artwork, working with practicing artists and outside specialists, or creating artworks that involve or collaborate with the audience through interaction and participation. Students resolve at least one finished artwork and consider presentation of their artwork and the context in which it will be viewed, including considering the relationships between the artwork, context, and viewer or audience.

Outcome 2: On completion of this unit the student should be able to use the Creative Practice to explore social and cultural ideas or issues to make and present at least one finished artwork using collaborative approaches.

3   Documentation of collaboration using the Creative Practice

In this area of study students build on their knowledge and skills and continue to document their art practice. They develop and evaluate their use of visual language. They respond to the feedback they receive from the critique to resolve their artwork.

Outcome 3: On completion of this unit the student should be able to critically reflect on, evaluate and document their use of the Creative Practice to develop and make collaborative visual responses.

Assessment

Assessment tasks may include:
- An extended written response
- Short-answer responses supported by visual references
- An annotated visual report
- A digital presentation such as an online or interactive presentation
- Visual responses that demonstrate the use of the Creative Practice
- Presentation of at least one finished artwork
- Documentation of the Creative Practice
- A critique of the development of personal ideas
- Evaluation of the Creative Practice and the presentation of finished artworks
- Evaluation of visual responses that effectively communicate social and cultural meaning
- An oral presentation

Please Note:

Students must satisfactorily complete Unit 1 &/or 2 Art before undertaking Units 3 & 4.

Art Creative Practice

Unit 3: Investigation, ideas, artworks and the Creative Practice

In this unit students use Inquiry and Project-based learning as starting points to develop a Body of Work. They explore ideas and experiment with materials, techniques and processes using the Creative Practice. The research of historical and contemporary artists is integral to students' use of the Creative Practice and informs the basis of their investigation. Students also investigate the issues that may arise from the artworks they view and discuss, or those evolving from the practice of the artist. Unit 3 commences with students researching the practice of a selected artist as the starting point to develop a finished artwork. The finished artwork will contribute to the Body of Work developed over Units 3 and 4. In Unit 3, the Interpretive Lenses are used in Making and Responding throughout the students' art practice.

Areas of Study

1   Investigation and presentation

Research and exploration

In this area of study students use Project-based learning as they begin to develop a Body of Work. Students research one artwork by a selected contemporary or historical artist as inspiration for their own art practice. The student will identify the ideas explored by the artist, and any issues that arise from the artwork or the practice of the artist. The student's Body of Work begins with a personal response, presented in a finished artwork, and the research and documentation of their art practice. Responding to the research, students explore their own ideas through their use of the Creative Practice. The student's personal response, resolved in a finished artwork, requires them to use the original artwork as a departure point for further investigation.

Resolution, presentation and critique

Students evaluate, reflect and talk about their use of the Creative Practice in a critique, which includes the presentation of at least one finished artwork. Using the appropriate Interpretive Lenses, students discuss how they have responded to their research, the ideas they have focused on and how they have explored and experimented with materials, techniques, processes and art forms to establish their visual language. Students reflect on the feedback they receive from the critique.

Outcome 1: On completion of this unit the student should be able to develop personal ideas using research that examines one artwork and the practice of an artist, and produce at least one finished artwork using the Creative Practice.

2   Personal investigation using the Creative Practice

In this area of study students continue to develop a Body of Work through Inquiry learning. They use the Creative Practice to develop their own visual responses inspired by ideas and experiences. The starting points for the Body of Work in Area of Study 2 may vary as students can continue to explore the ideas and issues from Area of Study 1, be influenced by the practices of other artists, or explore other ideas of personal interest. Students continue to use the Creative Practice as they progressively explore and develop their ideas, and investigate and experiment with materials, techniques and processes using art forms of their choice.

Outcome 2: On completion of this unit the student should be able to apply and explore ideas and an area of personal interest using the Creative Practice.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- An oral presentation with documented evidence
- A written report of 300–500 words with documented visual evidence
- An annotated visual report
- A critique presented in a digital format, such as an online presentation or interactive website
- An oral critique with documented visual and written evidence.
- At least one finished artwork that responds to the ideas explored using the Creative Practice.

Art Creative Practice

Unit 4: Interpreting, resolving and presenting artworks and the Creative Practice

In Unit 4 students continue to develop their art practice through Project-based and Inquiry learning as their research and exploration continues to support the development of their Body of Work. Throughout their research students study the practices of selected historical and contemporary artists to inform their own art practice. They use the Interpretive Lenses to analyse, compare and interpret the meanings and messages of artworks produced by the artists they study. Students also apply the Interpretive Lenses throughout the Creative Practice to resolve and refine their Body of Work. Students continue to build upon the ideas begun in Unit 3 and present a critique of their use of the Creative Practice. The students present their Body of Work to an audience accompanied by documentation of their use of the Creative Practice. In Unit 4, Areas of Study 1 and 2 are taught concurrently. The critique in Area of Study 1 takes place before the resolution and presentation of the Body of Work.

Areas of Study

1   Documentation and critique of the Creative Practice

In this area of study students continue to use the Creative Practice to develop, refine and resolve the ideas they developed in Unit 3. After beginning Unit 4 students present a critique to evaluate and reflect upon their use of the Creative Practice. Through discussion, students identify and classify emerging ideas in their artworks. Students consider and reflect on the feedback they receive. The feedback the students receive from the critique will focus on how effectively they are communicating ideas in their artworks and how they can continue to refine and resolve their Body of Work.

Outcome 1: *On completion of this unit the student should be able to document their use of Creative Practice and present a critique to inform the refinement and resolution of a Body of Work.*

2   Resolution and presentation of a Body of Work

In this area of study students continue to use Inquiry and Project-based learning as the basis for their use of the Creative Practice. They further develop and refine the Body of Work commenced in Unit 3, and continue their ongoing exploration and experimentation of personal responses. Using the feedback received from their critique, students progressively refine and resolve their ideas and visual language in their artworks.

Outcome 2: *On completion of this unit the student should be able to use the Creative Practice to resolve and present a Body of Work.*

3   Comparison of artists, their practice and their artworks

In this area of study students undertake research of artists, their practices and their artworks. They critically analyse and interpret the meanings and messages of artworks and use evidence and the appropriate Interpretive Lenses to support their interpretation and point of view. Using appropriate terminology, they compare the meanings and messages of historical and contemporary artworks.

Outcome 3: *On completion of this unit the student should be able to compare the practices of historical and contemporary artists and use the Interpretive Lenses to analyse and interpret the meanings and messages of selected artworks.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A written report or an extended response
- Short-answer responses or structured questions
- An annotated visual report (can be in a digital format, such as an online presentation or interactive website)
- An oral presentation with documented evidence.

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	10%
School Assessed Task (SAT)	60%
Unit 3 & 4 Examination	30%

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.

Areas of Study

1   How do cells function?

In this area of study students examine the structure and functioning of prokaryotic and eukaryotic cells, and how the plasma membrane contributes to survival by controlling the movement of substances into and out of the cell. Students explore cellular growth, replacement and death. They become familiar with the key events and regulation of the cell cycle and the processes for cell division, including disruptions to the cell cycle and deviant cell behaviour. Students consider the properties of stem cells and their role in differentiation, specialisation and renewal of cells and tissues.

Outcome 1: *On completion of this unit the student should be able to explain and compare cellular structure and function and analyse the cell cycle and cell growth, death and differentiation.*

2   How do plant and animal systems function?

In this area of study students explore how systems function through cell specialisation in vascular plants and in digestive, endocrine and excretory systems in animals, focusing on regulation of water balance in plants, and temperature, blood glucose and water balance in animals. Students examine how homeostatic mechanisms in animals help maintain their internal environment within a narrow range of tolerance levels and consider malfunctions in homeostatic mechanisms.

Outcome 2: *On completion of this unit the student should be able to explain and compare how cells are specialised and organised in plants and animals and analyse how specific systems in plants and animals are regulated.*

3   How do scientific investigations develop understanding of how organisms regulate their functions?

Survival of organisms requires control and regulation of factors within an organism and often outside an organism. Different types of cells and adaptations enhance an organism's survival in a particular environment, while homeostatic mechanisms maintain the internal environment.

In this area of study students adapt or design and then conduct a scientific investigation to generate appropriate qualitative and/or quantitative data, organise and interpret the data, and reach a conclusion in response to the research question.

The student-adapted or student-designed scientific investigation relates to knowledge and skills developed in Area of Study 1 and/or Area of Study 2.

Outcome 3: *On completion of this unit the student should be able to adapt or design and then conduct a scientific investigation related to function and/or regulation of cells or systems, and draw a conclusion based on evidence from generated primary data.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A report of a student-designed and/or adapted and/or extended practical investigation
- A report of a field work activity
- Test, multiple choice, short answer and/or extended response.
- Annotations of practical work
- Data analysis
- Reflective journal/blog
- Problem Solving Task
- Media Response
- A bioinformatics exercise

Biology

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.

Students analyse the advantages and disadvantages of asexual and sexual reproductive strategies, including the use of reproductive cloning technologies. They study structural, physiological and behavioural adaptations that enhance an organism's survival. Students explore interdependences between species, focusing on how keystone species and top predators structure and maintain the distribution, density and size of a population. They also consider the contributions of Aboriginal and Torres Strait Islander knowledge and perspectives in understanding the survival of organisms in Australian ecosystems.

Areas of Study

1   How is inheritance explained?

In this area of study students describe the production of gametes in sexual reproduction through the key events in meiosis. They explore the nature of chromosomes and the use of genetic language to read and interpret patterns of inheritance and predict outcomes of genetic crosses.

Students explain how a characteristic or trait can be influenced by one gene, many genes acting together, and genes interacting with external environmental or epigenetic factors. They apply their genetic knowledge to analyse pedigree charts, determine patterns of inheritance and predict outcomes of genetic crosses.

Outcome 1: *On completion of this unit the student should be able to explain and compare chromosomes, genomes, genotypes and phenotypes, and analyse and predict patterns of inheritance.*

2   How do inherited adaptations impact on diversity?

In this area of study students analyse the advantages and disadvantages of asexual and sexual reproduction and investigate the use and application of reproductive cloning technologies. Students explore the biological importance of genetic diversity and the structural, physiological and behavioural adaptations that enable species to survive in an ecosystem.

Students explore the interdependencies between species, including the importance and impact of keystone species and top predators. They consider the contributions of Aboriginal and Torres Strait Islander knowledge and perspectives to the understanding of the adaptations of, and interdependencies between, species in Australian ecosystems.

Outcome 2: *On completion of this unit the student should be able to analyse advantages and disadvantages of reproductive strategies and evaluate how adaptations and interdependencies enhance survival of species within an ecosystem.*

3   How do humans use science to explore and communicate contemporary bioethical issues?

In this area of study students explore a contemporary bioethical issue relating to the application of genetic knowledge, reproductive science, inheritance or adaptations and interdependencies beneficial for survival.

Outcome 3: *On completion of this unit the student should be able to identify, analyse and evaluate a bioethical issue in genetics, reproductive science or adaptations beneficial for survival.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A report of a student-designed and/or adapted and/or extended practical investigation
- A report of a field work activity
- Test, multiple choice, short answer and/or extended response.
- Annotations of practical work
- Data analysis
- Reflective journal/blog
- Problem Solving Task
- Media Response
- A bioinformatics exercise

Biology

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.

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

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

Areas of Study

1   What is the role of nucleic acids and proteins in maintatining life?

In this area of study students explore the expression of the information encoded in a sequence of DNA to form a protein and outline the nature of the genetic code and the proteome. They apply their knowledge to the structure and function of the DNA molecule to examine how molecular tools and techniques can be used to manipulate the molecule for a particular purpose. Students compare gene technologies used to address human and agricultural issues and consider the ethical implications of their use.

Outcome 1: *On completion of this unit the student should be able to analyse the relationship between nucleic acids and proteins and evaluate how tools and techniques can be used and applied in the manipulation of DNA.*

2   How are biochemical pathways regulated?

In this area of study students focus on the structure and regulation of biochemical pathways. They examine how biochemical pathways, specifically photosynthesis and cellular respiration, involve many steps that are controlled by enzymes and assisted by coenzymes. Students investigate factors that affect the rate of cellular reactions and explore applications of biotechnology that focus on the regulation of biochemical pathways.

Outcome 2: *On completion of this unit the student should be able to analyse the structure and regulation of biochemical pathways in photosynthesis and cellular respiration and evaluate how biotechnology can be used to solve problems related to the regulation of biochemical pathways.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks will be selected from:

- An analysis and evaluation of a selected biological case study
- Analysis and evaluation of a contemporary bioethical issue
- An analysis and evaluation of generated primary and/or collated secondary data
- Comparison and evaluation of biological concepts, methodologies and methods, and findings from three student practical activities.

Biology

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 evolutionary biology is based on the accumulation of evidence over time. They investigate the impact of various change events on a population's gene pool and the biological consequences of changes in allele frequencies. Students examine the evidence for relatedness between species and change in life forms over time using a range of evidence and recognise that interpretations can be contested, refined or replaced when challenged by new evidence.

Areas of Study

1   How do organisms respond to pathogens?

In this area of study students focus on the immune response of organisms to specific pathogens. They explain how technological advances assist in managing immune system disorders and how immunotherapies can be applied to the treatment of other diseases.

Students consider that in a globally connected world there are biological challenges that can be mediated by identification of pathogens, the prevention of spread and the development of treatments for diseases.

Outcome 1: *On completion of this unit the student should be able to analyse the immune response to specific antigens, compare the different ways that immunity may be acquired and evaluate challenges and strategies in the treatment of disease.*

2   How are species related over time?

In this area of study students focus on changes to genetic material over time and the evidence for biological evolution. They consider how the field of evolutionary biology is based upon the accumulation of evidence over time and develop an understanding of how interpretations of evidence can change in the light of new evidence as a result of technological advances, particularly in molecular biology. They consider the evidence for determining the relatedness between species and examine the evidence for major trends in hominin evolution, including the migration of modern human populations around the world.

Outcome 2: *On completion of this unit the student should be able to analyse the evidence for genetic changes in populations and changes in species over time, analyse the evidence for relatedness between species, and evaluate the evidence for human change over time.*

3   How is scientific inquiry used to investigate cellular processes and/or biological change?

Students undertake a student-designed scientific investigation which involves the generation of primary data relating to cellular processes and/or how life changes and responds to challenges. The investigation draws on knowledge and related key science skills developed across Units 3 and 4.

Outcome 3: *On completion of this unit the student should be able to design and conduct a scientific investigation related to cellular processes and/or how life changes and responds to challenges in a scientific poster.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. See Biology Unit 3 for types of assessment tasks for Outcome 1 and 2.

Assessment tasks for Unit 4 Outcome 3:
* Communication of the design, analysis and findings of a scientific investigation

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	50%

Business Management

Unit 1: Planning a business

Businesses of all sizes are major contributors to the economic and social wellbeing of a nation. 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 concept of entrepreneurship, and the factors affecting business ideas and the internal and external environments within which businesses operate, and the effect of these on planning a business.

Areas of Study

1   The business idea

In this area of study students investigate how business ideas are created and how conditions can be fostered for new business ideas to emerge. Students explore some of the issues that need to be considered before a business can be established.

Outcome 1: *On completion of this unit the student should be able to describe how and why business ideas are created and developed, and explain the methods by which a culture of business innovation and entrepreneurship may be fostered in a nation.*

2   Internal environment

The internal environment affects the approach to and success of business planning. The owner will generally have more control over the activities, functions and pressures that occur within a business. These factors, such as business models, legal business structures and staffing, will also be influenced to some extent by the external environment. Students explore the factors within the internal environment and consider how planning decisions may have an effect on the ultimate success of a business.

Outcome 2: *On completion of this unit the student should be able to describe the internal business environment and analyse how factors from within it may affect business planning.*

3   External Environment

Students consider factors from the external environment such as legal, political, social, economic, technological, global and corporate social responsibility factors and the effects these may have on the decisions made when planning a business. Students investigate how the internal environment relates to the external environment and the effects of this relationship on planning a business.

Outcome 3: *On completion of this unit the student should be able to describe the external environment of a business and explain how the macro and operating factors within it may affect business planning.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study analysis
- Business research report
- Development of a business plan
- Interview and report on contact with business
- Business simulation exercise
- School-based, short-term business activity
- Essay
- Media analysis
- Unit exam

Business Management

Unit 2: Establishing a business

This unit focuses on the establishment phase of a business's life. 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.

Areas of Study

1   Legal requirements and financial considerations

In this area of study students are introduced to the legal requirements and financial considerations that are vital to establishing a business. They also consider the implications for the business if these requirements are not met.

Outcome 1: On completion of this unit the student should be able to explain the importance when establishing a business of complying with legal requirements and financial record keeping, and establishing effective policies and procedures.

2   Marketing a business

In this area of study students develop their understanding that marketing encompasses a wide range of management practices, from identifying the needs of the target market and establishing a brand presence, through to considerations on price, product features and packaging, promotion, place, people, physical evidence and processes. They also consider effective public relations strategies and the benefits and costs these can bring to a business.

Outcome 2: On completion of this unit the student should be able to explain the importance of establishing a customer base and a marketing presence to achieve the objectives of the business, analyse effective marketing and public relations strategies and apply these strategies to business-related case studies.

3   Staffing a business

In this area of study students examine the staffing requirements that will meet the needs and objectives of the business and contribute to productivity and effectiveness. They research the processes undertaken by the business with relation to the recruitment, selection and induction of staff. Students consider the opportunities that the skills and capabilities of staff can contribute to the business, the legal obligations that must be addressed and the relationship between employers and employees within a business.

Outcome 3: On completion of this unit the student should be able to discuss the staffing needs for a business and evaluate the benefits and limitations of management strategies in this area from both an employer and an employee perspective.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study analysis
- Business research report
- Development of a business plan
- Interview and report on contact with business
- Business simulation exercise
- School-based, short-term business activity
- Essay
- Media analysis
- Unit exam

Business Management

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. 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.

Areas of Study

1   Business foundations

This area of study introduces students to the key characteristics of businesses and their stakeholders. Students investigate potential conflicts between and the different demands of stakeholders on a business. They examine a range of management styles and management skills that may be used when managing a business and apply these to contemporary business case studies.

Outcome 1: On completion of this unit the student should be able to discuss the key characteristics of businesses and stakeholders, and analyse the relationship between corporate culture, management styles and management skills.

2   Human resource management

In this area of study students investigate essential factors such as motivation and training involved in effectively managing employees during their time at a business to ensure the business objectives are achieved. They consider Maslow's Hierarchy of Needs, Locke and Latham's Goal Setting Theory and Lawrence and Nohria's Four Drive Theory of motivation. Using the theories and motivation strategies, students propose and justify possible solutions to employee management in contemporary business case studies. Students gain an overview of workplace relations, including the main participants and their roles in the dispute resolution process.

Outcome 2: On completion of this unit the student should be able to explain theories of motivation and apply them to a range of contexts, and analyse and evaluate strategies related to the management of employees.

3   Operations management

In this area of study students examine operations management and consider the best and most responsible use of available resources for the production of a quality final good or service in a competitive, global environment.

Outcome 3: On completion of this unit the student should be able to analyse the relationship between business objectives and operations management, and propose and evaluate strategies to improve the efficiency and effectiveness of business operations.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study
- Structured questions
- Essay
- Report
- Media analysis

Business Management

Unit 4: Transforming a business

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

Areas of Study

1 Reviewing performance – the need for change

In this area of study students develop their understanding of the need for change. Students investigate the ways a business can search for new business opportunities as a source of future business growth and consider current forces for change on a business. They apply Lewin's Force Field Analysis theory to contemporary case studies and consider approaches to strategic management, using Porter's Generic Strategies.

Outcome 1: On completion of this unit the student should be able to explain the way business change may come about, use key performance indicators to analyse the performance of a business, discuss the driving and restraining forces for change and evaluate management strategies to position a business for the future.

2 Implementing change

In this area of study students explore how businesses respond to evaluation data. Students consider the importance of leadership in change management, how leaders can inspire change and the effect change can have on the stakeholders in a business. They consider the principles of Senge's Learning Organisation and apply the Three Step Change Model (Lewin) in implementing change in a business. Using a contemporary business case study from the past four years, students evaluate business practice against theory, considering how corporate social responsibility can be incorporated into the change process.

Outcome 2: On completion of this unit the student should be able to evaluate the effectiveness of a variety of strategies used by managers to implement change and discuss the effect of change on the stakeholders of a business.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study
- Structured questions
- Essay
- Report
- Media analysis

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Chemistry

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

In this unit students investigate the chemical properties of a range of materials. Using their knowledge of elements and atomic structure students explore the relationships between properties, structure and bonding forces within and between particles that vary in size. They examine the modification of metals, polymers and carbon nanoparticles. Students use chemistry terminology including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from experiments and to discuss chemical phenomena.

Areas of Study

1 How do the chemical structures of materials explain their properties and reactions?

In this area of study students focus on elements as the building blocks of useful materials. They investigate the structures, properties and reactions of carbon compounds, metals and ionic compounds, and use chromatography to separate the components of mixtures. They use metal recycling as a context to explore the transition in manufacturing processes from a linear economy to a circular economy. They may model covalent, metallic and ionic structures using simple ball-and-stick models and may use computer simulations of the three-dimensional representations of molecules and lattices to better understand structures. They use solubility tables to experimentally identify unknown ions in solution. They respond to challenges such as developing their own reactivity series by reacting samples of metals with acids, oxygen and water.

Outcome 1: On completion of this unit the student should be able to explain how elements form carbon compounds, metallic lattices and ionic compounds, experimentally investigate and model the properties of different materials, and use chromatography to separate the components of mixtures.

2 How are materials quantified and classified?

In this area of study students focus on the measurement of quantities in chemistry and the structures and properties of organic compounds, including polymers. They perform calculations based on the generation of primary data, such as determining the empirical formula of an ionic compound or hydrated salt, and consider how the quality of data generated in experiments can be improved. They may construct models to visualise the similarities and differences between families of organic compounds. Students may use common substances in their experiments & may investigate the environmental impact of the production of polymers. Students respond to challenges such as investigating how changing formulations for polymers affects their structure and properties: for example, by creating slime.

Outcome 2: On completion of this unit the student should be able to calculate mole quantities, use systematic nomenclature to name organic compounds, explain how polymers can be designed for a purpose, and evaluate the consequences for human health and the environment of the production of organic materials and polymers.

3 How can chemical principles be applied to create a more sustainable future?

In this area of study students undertake an investigation involving the selection and evaluation of a recent discovery, innovation, advance, case study, issue or challenge, including consideration of sustainability concepts (green chemistry principles, sustainable development and the transition towards a circular economy). Students apply critical and creative thinking and science inquiry skills to prepare a communication to explain the relevant chemical concepts associated with their investigation, critically examine the information and data available.

Outcome 3: On completion of this unit the student should be able to investigate and explain how chemical knowledge is used to create a more sustainable future in relation to the production or use of a selected material.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Refer to Unit 2 for example assessment tasks.

Please Note:

- It is recommended that students satisfactorily complete Units 1&2 Chemistry before undertaking Units 3&4
- It is recommended that students undertake a minimum of General Mathematics in conjunction with Chemistry

Chemistry

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. Throughout the unit students use chemistry terminology, including symbols, formulas, chemical nomenclature and equations, to represent and explain observations and data from their own investigations and to evaluate the chemistry-based claims of others.

Areas of Study

1 How do chemicals interact with water?

In this area of study students focus on understanding the properties of water and investigating acid-base and redox reactions. They explore water's properties, including its density, specific heat capacity and latent heat of vaporisation. They write equations for acid-base and redox reactions, and apply concepts including pH as a measure of acidity. They may investigate redox reactions by comparing corrosion rates of iron in tap water and sea water or building simple cells to power a diode. They respond to challenges such as investigating the action of soda water on seashells and linking their finding to socio-scientific issues such as ocean acidification.

Outcome 1: On completion of this unit students should be able to explain the properties of water in terms of structure and bonding, and experimentally investigate and analyse applications of acid-base and redox reactions in society.

2 How are chemicals measured and analysed?

In this area of study students focus on the analysis and quantification of chemical reactions involving acids, bases, salts and gases. They measure the solubility of substances in water, explore the relationship between solubility and temperature using solubility curves, and learn to predict when a solute will dissolve or crystallise out of solution. They quantify amounts in chemistry using volumetric analysis, application of the ideal gas equation, stoichiometry and calibration curves. They use precipitation reactions to purify water and perform acid-base titrations. They construct calibration curves to analyse unknown concentrations of substances.

Outcome 2: On completion of this unit students should be able to calculate solution concentrations and predict solubilities, use volumetric analysis and instrumental techniques to analyse for acids, bases and salts, and apply stoichiometry to calculate chemical quantities.

3 How do quantitative scientific investigations develop our understanding of chemical reactions?

In this area of study students adapt or design and then conduct a scientific investigation related to chemical equations and/or analysis. They develop a research question and adapt or design and then conduct a scientific investigation to generate appropriate quantitative data. Students organise and interpret the data and reach a conclusion in response to their research question.

Outcome 3: On completion of this unit students should be able to draw an evidence-based conclusion from primary data generated from a student-adapted or student-designed scientific investigation related to the production of gases, acid-base or redox reactions or the analysis of substances in water.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for both Unit 1 and Unit 2 may include:

- Data analysis
- A modelling activity
- Annotations of practical work
- Test, multiple choice, short answer and/or extended response
- Problem Solving Task
- A report of a student-designed practical investigation

Please Note:

- It is recommended that students satisfactorily complete Units 1&2 Chemistry before undertaking Units 3&4
- It is recommended that students undertake a minimum of General Mathematics in conjunction with Chemistry

Chemistry

Unit 3: How can design and innovation help to optimise chemical processes?

In this unit students investigate the chemical production of energy and materials. They explore how innovation, design and sustainability principles and concepts can be applied to produce energy and materials while minimising possible harmful effects of production on human health and the environment. 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 and use the language and conventions of chemistry to represent and explain observations and data collected.

Areas of Study

1   What are the current and future options for supplying energy?

In this area of study students focus on analysing and comparing a range of fossil fuels and biofuels as energy sources for society, and carbohydrates, proteins and lipids as fuel sources for the body. They write balanced thermochemical equations for the combustion of various fuels. The amounts of energy and gases produced in combustion reactions are quantified using stoichiometry. They explore how energy can be sustainably produced from chemicals to meet the needs of society while minimising negative impacts on the environment.

Outcome 1: On completion of this unit the student should be able to compare fuels quantitatively with reference to combustion products and energy outputs, apply knowledge of the electrochemical series to design, construct and test primary cells and fuel cells, and evaluate the sustainability of electrochemical cells in producing energy for society.

2   How can the rate and yield of chemical reactions be optimised?

In this area of study, students explore the factors that affect the rate and yield of equilibrium and electrolytic reactions involved in producing important materials for society. Reactants and products in chemical reactions are treated qualitatively through the application of Le Chatelier's principle and quantified using equilibrium expressions, reaction quotients and Faraday's Laws. Students explore the sustainability of different options for producing useful materials for society. They investigate reaction rates including the measurement of mass, gas volumes and time. They use an equilibrium system to predict and test the effect of different changes to the system. They investigate the effect of catalysts on reaction rates, such as comparing the rate of decomposition of hydrogen peroxide using organic and inorganic catalysts. Students explore the application of electrolysis in the manufacture of useful products through experiments and model and explain the operation of secondary cells, such as those in laptops or cell phones. Students respond to challenges such as predicting & testing the optimum conditions under which a selected reaction can produce the highest product yield whilst developing practical techniques and their skills in the use of scientific equipment and apparatus.

Outcome 2: On completion of this unit the student should be able to experimentally analyse chemical systems to predict how the rate and extent of chemical reactions can be optimised, explain how electrolysis is involved in the production of chemicals, and evaluate the sustainability of electrolytic processes in producing useful materials for society.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Unit 3 & Unit 4 will include:

- Comparison and evaluation of chemical concepts, methods and findings from at least two practical activities
- Analysis and evaluation of primary and/or secondary data, including identified assumptions or data limitations, and conclusions
- Analysis and evaluation of a chemical innovation, research study, case study, socio-scientific issue, or media communication
- Problem-solving, using chemistry concepts and skills applied to real-world contexts.

Chemistry

Unit 4: How are carbon-based compounds designed for purpose?

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.

Areas of Study

1   How are organic compounds categorised and synthesised?

In this area of study students focus on the structure, naming, properties and reactions of organic compounds, including the chemical reactions associated with the metabolism of food. They explore how synthetic organic compounds can be produced more sustainably for use in society. Students will develop practical techniques to investigate organic structures and reactions and develop their skills in the use of scientific equipment and apparatus. They may construct models to explore organic structures, including isomers. Students may compare the properties of biodiesels produced using different oils, or may investigate organic reaction pathways such as the synthesis of esters used in food flavourings. They may investigate food metabolism by hydrolysing different types of plant starches. Students respond to challenges such as how to improve the atom economy of a selected chemical reaction or reaction pathway.

Outcome 1: On completion of this unit the student should be able to analyse the general structures and reactions of the major organic families of compounds, design reaction pathways for organic synthesis, and evaluate the sustainability of the manufacture of organic compounds used in society.

2   How are organic compounds analysed and used?

In this area of study students focus on laboratory and instrumental analyses of organic compounds, and the function of some organic compounds as medicines. They use distillation to separate mixtures, use volumetric analysis to calculate redox quantities, and explore how instrumental analysis is used to ensure the quality of consumer products. Students explain how some medicines that bind to the active sites of enzymes function by inhibiting the enzymes' mode of action.

Outcome 2: On completion of this unit the student should be able to apply qualitative and quantitative tests to analyse organic compounds and their structural characteristics, deduce structures of organic compounds using instrumental analysis data, explain how some medicines function, and experimentally analyse how some natural medicines can be extracted and purified.

3   How is scientific inquiry used to investigate the sustainable production of energy and/or materials?

A student-designed practical investigation related to energy and/or chemicals and/or the analysis or synthesis of organic compounds.

Outcome 3: On completion of this unit the student should be able to design and conduct a scientific investigation related to the production of energy and/or chemicals and/or the analysis or synthesis of organic compounds, and present an aim, methodology and method, results, discussion and conclusion in a scientific poster.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Refer to Unit 3 for types of assessment tasks.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	50%

Dance

Unit 1

In this unit, students explore the potential of the body as an instrument of expression and communication in conjunction with the regular and systematic development of physical dance skills. Students discover the diversity of expressive movement and purposes for dancing in dances from different times, places, cultures, traditions and/or styles. They commence the process of developing a personal movement vocabulary and also begin the practices of documenting and analysing movement. Through this work they develop understanding of how other choreographers use these practices. Students learn about relevant physiology and approaches to health and wellbeing, and about care and maintenance of the body.

Areas of study

1   Dance perspectives

This area of study focuses on analysis of choreographers' intentions, expressive movement resulting from use of the choreographic processes and the physical skills required to safely realise dance works.

Outcome 1: *On completion of this unit, the student should be able to describe and document features of other choreographers' dance works.*

2   Choreography and performance

In this area of study students develop an intention for a solo, duo and/or group dance work, and explore and safely use movement to communicate this intention through choreography and performance.

Outcome 2: *On completion of this unit, the student should be able to choreograph and perform a solo, duo and/or group dance work and complete structured improvisations.*

3   Dance technique and performance

In this area of study students learn, rehearse and perform a solo, duo or group dance work that communicates an intention.

Outcome 3: *On completion of this unit, the student should be able to safely and expressively perform a learnt solo, duo or group dance work.*

4   Awareness and maintenance of the dancer's body

In this area of study, students develop an understanding of current health and wellbeing principles, and the safe use, maintenance and physiology of the dancer's body.

Outcome 4: *On completion of this unit, the student should be able to describe key approaches to wellbeing and health practices for dancers and essential aspects of physiology, and demonstrate the safe use and maintenance of the dancer's body.*

Assessment

Assessment tasks for this unit may include the following:
- Multimedia
- Oral
- Written analysis
- Performance

Prerequisites:

Students must satisfactorily complete a Dance audition in order to be eligible for Unit 1 & 2 Dance.

Dance

Unit 2

In this unit students extend their personal movement vocabulary and skill in using a choreographic process by exploring elements of movement (time, space and energy), the manipulation of movement through choreographic devices and the types of form used by choreographers. Students use the choreographic process to develop and link movement phrases to create a dance work. They apply their understanding of the processes used to realise a solo or group dance work – choreographing and/or learning, rehearsing, preparing for performance and performing. Students are introduced to a range of dance traditions, styles and works. Dance traditions, styles and works selected for study should encompass the dance output of traditional and/or contemporary Aboriginal and Torres Strait Islander Peoples and other Australian dance artists.

Areas of study

1   Dance perspectives

This area of study focuses on ways the movement categories and elements of movement can be manipulated to communicate an intention in various dance traditions, styles and works.

Outcome 1: *On completion of this unit, the student should be able to analyse use of the movement categories and elements of movement in selected dance traditions, styles and/or works.*

2   Choreography and performance

Students choreograph a solo, duo or group dance work.

Outcome 2: *On completion of this unit, the student should be able to complete structured improvisations and choreograph and perform a solo, duo or group dance work.*

3   Dance technique and performance

In this area of study, students demonstrate their capacity to safely and accurately execute a range of actions from all the movement categories.

Outcome 3: *On completion of this unit the student should be able to safely and securely perform a learnt solo, duo or group dance work with artistry, and report on the realisation of the dance work.*

Assessment

Assessment tasks for this unit may include the following:
- Multimedia
- Written analysis
- Oral
- Performance

Prerequisites:

Students must satisfactorily complete a Dance audition in order to be eligible for Unit 1 & 2 Dance.

Dance

Unit 3

In this unit, students choreograph, rehearse and perform a solo dance work that allows them to execute a diverse range of physical skills and actions drawn from all movement categories. Students continue regular and systematic dance training and learn and perform a duo or group dance work created by another choreographer. They continue to develop their ability to safely execute movement vocabulary and perform with artistry.

Students analyse the realisation of their solo and the learnt duo or group dance work, focusing on the processes of choreographing or learning, rehearsing, preparing for performance and performing. This analysis connects each student's work as a choreographer to the work of professional choreographers.

Areas of study

1 Dance perspectives

In this area of study students develop an understanding of the ways selected choreographers of two prescribed dance works arrange selected movement vocabulary into phrases and movement sections to create a form to communicate their intention.

Outcome 1: *On completion of this unit, the student should be able to analyse two selected dance works.*

2 Choreography, performance and analysis of a skills-based solo dance work

In this area of study students choreograph and perform a solo dance work that demonstrates the safe use of a wide range of physical skills.

Outcome 2: *On completion of this unit, the student should be able to choreograph, rehearse and perform a skills-based solo dance work and analyse the processes used to realise the solo dance work.*

3 Dance technique, performance and analysis of a learnt dance work

In this area of study students learn, rehearse and perform a duo or group dance work created by another choreographer.

Outcome 3: *On completion of this unit the student should be able to learn, rehearse and prepare for performance, and perform a duo or group dance work by another choreographer and analyse the processes used.*

Assessment

Assessment tasks for this unit may include the following:
- Multimedia
- Written analysis
- Oral
- Performance

Prerequisites:

If students have not completed Unit 1 &/or 2 Dance, in interview is required.

Dance

Unit 4

In this unit, students choreograph, rehearse and perform a solo dance work with a cohesive structure. When rehearsing and performing this dance work students focus on communicating the intention with accurate execution of choreographic variations of spatial organisation. They explore how they can demonstrate artistry in performance. Students document and analyse the realisation of the solo dance work across the processes of choreographing, rehearsing, preparing to perform and performing the dance work.

Areas of study

1   Dance perspectives

In this area of study, students analyse a twentieth or twenty-first century group dance work.

Outcome 1: *On completion of this unit, the student should be able to analyse a selected group dance work.*

2   Choreography, performance and dance-making analysis

This area of study focuses on choreography and performance of a solo dance work. The intention for this work should focus on communicating ideas through movement.

Outcome 2: *On completion of this unit, the student should be able to choreograph, rehearse, perform and analyse their realisation of a solo dance work.*

Assessment

Assessment tasks for this unit may include the following:

- Written
- Oral
- Multimedia
- Performance

Prerequisites:

Students must satisfactorily complete Unit 1 &/or 2 Dance before undertaking Units 3 & 4.

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	15%
Unit 4 School Assessed Coursework	10%
Unit 3 & 4 Performance Examination	50%
Unit 3 & 4 Examination	25%

Drama

Unit 1: Introducing performance styles

In this unit, students study three or more performance styles from a range of social, historical and cultural contexts. They examine drama traditions of ritual and storytelling to devise performances that go beyond re-creation and/or representation of real life as it is lived. This unit focuses on creating, presenting and analysing a devised solo and/or ensemble performance that includes real or imagined characters and is based on stimulus material that reflects personal, cultural and/or community experiences and stories. This unit also involves analysis of a student's own performance work and a work by professional drama performers.

Areas of Study

1   Creating a devised performance

In this area of study, students use play-making techniques to devise and develop solo performances and/or ensemble performances based on a range of stimulus material relevant to their personal, cultural and/or community experiences and stories.

Outcome 1: On completion of this unit, the student should be able to devise and document solo and/or ensemble drama works based on experiences and/or stories.

2   Presenting a devised performance

In this area of study, students present to an audience a devised solo and/or ensemble drama works based on a range of stimulus material relevant to the student's personal, cultural and/or community experiences and stories.

Outcome 2: On completion of this unit, the student should be able to perform devised drama works to an audience.

3   Analysing a devised performance

In this area of study students focus on observation and analysis of their own performance work completed in Outcomes 1 and 2. They reflect upon and document work processes using appropriate drama terminology.

Outcome 3: On completion of this unit, the student should be able to analyse the development, and the performance to an audience, of their devised work.

4   Analysing a professional drama performance

In this area of study students observe and analyse a performance by professional drama performers. Attending and analysing a performance by professional drama performers provides opportunities for students to make connections with their own work.

Outcome 4: On completion of this unit, the student should be able to analyse the presentation of ideas, stories and characters in a drama performance by professional or other drama practitioners.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include the following:

- Drama journal
- Performance
- Written analysis and evaluation.

Drama

Unit 2: Australian identity

In this unit students study aspects of Australian identity evident in contemporary drama practice. This may also involve exploring the work of selected drama practitioners and associated performance styles. This unit focuses on the use and documentation of the processes involved in constructing a devised solo or ensemble performance.

Students create, present and analyse a performance based on a person, an event, an issue, a place, an artwork, a text and/or an icon from a contemporary or historical Australian context.

Areas of Study

1 Using Australia as inspiration

In this area of study, students explore the use of a range of stimulus material to create a performance based on a person, an event, an issue, a place, an artwork, a text and/or an icon from a contemporary or historical Australian context.

Outcome 1: *On completion of this unit the student should be able to devise and document the processes used to create a solo or ensemble performance that reflects an aspect or aspects of Australian identity and contemporary drama practice.*

2 Presenting a devised performance

In this area of study, students present a performance to an audience of a devised work based on a person, an event, an issue, a place, an artwork, a text and/or an icon from an Australian context.

Outcome 2: *On completion of this unit, the student should be able to present a devised performance that reflects aspects of Australian identity and contemporary drama practice.*

3 Analysing a devised performance

In this area of study students observe and analyse their own performance work completed in Outcomes 1 and 2.

They reflect on and articulate the ways they used play-making techniques and processes to explore and to extract the dramatic potential of the stimulus material.

Outcome 3: *On completion of this unit, the student should be able to analyse the development, and performance to an audience, of their devised work.*

4 Analysing an Australian drama performance

In this area of study students observe and analyse a performance by professional drama performers.

Outcome 4: *On completion of this unit, the student should be able to analyse and evaluate a performance of a drama work by Australian practitioners.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include the following:

- Drama journal
- Performance
- Written analysis and evaluation

Drama

Unit 3: Devised ensemble performance

In this unit, students explore the work of drama practitioners and draw on contemporary practice as they devise ensemble performance work. Students explore performance styles and associated conventions from a diverse range of contemporary and/or traditional contexts. They work collaboratively to devise, develop and present an ensemble performance. Students create work that reflects a specific performance style or one that draws on multiple performance styles and is therefore eclectic in nature. They use play-making techniques to extract dramatic potential from stimulus material, then apply and manipulate conventions, dramatic elements, expressive skills, performance skills and production areas. Throughout development of the work they experiment with transformation of character, time and place, and application of symbol. Students devise and shape their work to communicate meaning or to have a specific impact on their audience. In addition, students document and evaluate stages involved in the creation, development and presentation of the ensemble performance.

Areas of Study

1   Devising and presenting ensemble performance

In this area of study students develop and present a devised ensemble performance. They examine the work of a range of drama practitioners working in selected performance styles to explore how dramatic work is created.

Outcome 1: *On completion of this unit the student should be able to develop and present characters within a devised ensemble performance that goes beyond a representation of real life as it is lived.*

2   Analysing a devised ensemble performance

In this area of study, students analyse the ensemble performance devised in Outcome 1. They describe, reflect upon, interpret, analyse and evaluate the construction and performance of this ensemble performance.

Outcome 2: *On completion of this unit, the student should be able to analyse the use of processes, techniques and skills to create and present a devised ensemble performance.*

3   Analysing and evaluating a professional drama performance

In this area of study, students attend, analyse and evaluate a professional drama performance selected from the prescribed VCE Drama Unit 3 Playlist.

Outcome 3: *On completion of this unit, the student should be able to analyse and evaluate a professional drama performance.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include the following:
- Performance
- Written analysis and evaluation

Prerequisites:

Students must satisfactorily complete Unit 1 &/or 2 Drama **OR** Unit 2 Theatre Studies before undertaking Units 3 & 4. If above has not been met, student must successfully complete a pre-test/audition.

Drama

Unit 4: Devised solo performance

This unit focuses on the development and the presentation of devised solo performances. Students explore contemporary practice and works that are eclectic in nature; that is, they draw on a range of performance styles and associated conventions from a diverse range of contemporary and traditional contexts. Students develop skills in extracting dramatic potential from stimulus material and use play-making techniques to develop and present a short solo performance. They experiment with application of symbol and transformation of character, time and place. They apply conventions, dramatic elements, expressive skills, performance skills and performance styles to shape and give meaning to their work. Students further develop and refine these skills as they create a performance in response to a prescribed structure. They consider the use of production areas to enhance their performance and the application of symbol and transformations. Students document and evaluate the stages involved in the creation, development and presentation of their solo performance.

Areas of Study

1   Demonstrating techniques of solo performance

In this area of study students explore, and develop skills in, play-making techniques in the development of a short solo performance. They demonstrate application of symbol and transformation of character, time and place.

Outcome 1: On completion of this unit, the student should be able to demonstrate, in response to given stimulus material, application of symbol and transformation of character, time and place, and describe the techniques used.

2   Devising a solo performance

In this area of study students create and develop a solo performance in response to a prescribed structure. They draw on an understanding of performance styles from a range of historical, cultural and social contexts.

Outcome 2: On completion of this unit, the student should be able to create, develop and perform a solo performance in response to a prescribed structure.

3   Analysing and evaluating a devised solo performance

In this area of study students use appropriate drama terminology to analyse and evaluate the creative processes used in the creation, development and presentation of a solo performance devised in response to a prescribed structure.

Outcome 3: On completion of this unit, the student should be able to analyse and evaluate the creation, development and presentation of a solo performance devised in response to a prescribed structure.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include the following:

- Performance
- Written statement
- Written analysis and evaluation

Prerequisites:

Students must satisfactorily complete Unit 1 &/or 2 Drama **OR** Unit 2 Theatre Studies before undertaking Units 3 & 4. If above has not been met, student must successfully complete a pre-test/audition.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	30%
Unit 4 School Assessed Coursework	10%
Unit 3 & 4 Performance Examination	35%
Unit 3 & 4 Examination	25%

Economics

Unit 1: Economic decision-making

Economics looks at how humans behave and make decisions to meet the needs and wants of society. In this unit students explore their interactions with businesses, and the role of the government in the economy. They examine economic models and investigate the motivations of consumer and business behaviour, including incentives.

Students use demand and supply models to explain changes in prices and quantities traded. Through close examination of one or more markets, they gain insight into the factors that may affect the way resources are allocated in an economy and how market power can affect efficiency and living standards. Students contrast behavioural economics with the traditional model of consumer behaviour. They analyse how behavioural economics has been used by government and by businesses.

Areas of Study

1 Thinking like an economist

In this area of study Students investigate the key economic questions of what and how much to produce, how to produce and who gets to enjoy the benefits of what is produced. Students consider the roles of three key economic agents in the Australian economy: consumers, businesses and the government. They consider the reasons why people might respond differently to incentives and how this can affect living standards.

Outcome 1: *Students should be able to describe the basic economic problem, discuss the role of consumers, businesses and the government in the economy, and analyse the factors that affect economic decision-making.*

2 Decision-making in markets

Students explore the basic demand and supply model and make connections between the theory and the workings of different markets in the Australian and world economy. In studying the operation of markets and using relevant models, students consider one of a range of possible markets including agricultural, labour, housing, and health.

Outcome 2: *Students should be able to explain the role of relative prices and other non-price factors in the allocation of resources in a market-based economy and analyse the extent of competition in markets.*

3 Behavioural economics

Students gain an insight into how the insights of behavioural economics complement the traditional economic understanding of the behaviour of economic agents. Students will also investigate how the observations of behavioural economists have been used to inform policy planning and implementation by government and producers/business.

Outcome 3: *Students should be able to explain how behavioural economics complements traditional understandings of decision-making, and analyse the effects of behavioural economics insights on consumers and others.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:
- Analysis of written, visual and statistical evidence
- Folio of applied economic exercises
- Problem-solving tasks
- Folio of annotated media commentaries
- Presentations
- A blog
- Structured questions
- Economic simulation activities
- Report of an investigation
- Essay
- Debate
- Case studies
- Tests
- A web page
- Media analysis
- Unit exam

Economics

Unit 2: Economic issues and living standards

The maximising of living standards of society is done through economic decisions that optimise the use of resources to produce goods and services that satisfy human needs and wants. Students consider the link between economic activity and economic growth and investigate the importance of economic growth in raising living standards. They evaluate the benefits and costs of continued economic growth and consider the extent to which our current measurements of living standards are adequate.

Areas of Study

1   Economic activity

In this area of study students consider the meaning and importance of economic activity and the factors that affect economic activity. They investigate how economic growth is the outcome of economic activity and how economic growth is measured, and evaluate the effects of changes in the levels of economic activity on both material and non-material living standards. Economic growth is generally thought to promote improvements in living standards as it is associated with increased incomes and literacy rates and improved health outcomes. Students evaluate the effects of an ever-growing economy on material and non-material living standards and consider the costs and benefits of economic growth in terms of material and non-material living standards. They also consider alternative methods of measuring living standards, beyond economic growth.

Outcome 1: Students should be able to explain the purpose of economic activity, the distinction between material and non-material living standards and the factors that affect levels of economic growth, discuss the costs and benefits of economic growth and examine the impact of economic activity on living standards using alternative measures.

2   Applied economic analysis of local, national and international economic issues

Economic issues affect all of us, influencing our daily lives and decision-making. The rapidly changing nature of the contemporary economy means the economic issues of importance to local areas, Australia and the international economy are constantly changing and evolving.

In this area of study, students undertake an applied economic analysis by investigating two contemporary economic issues from a local, national and international perspective through an economic lens. Students investigate two of the four following current economic issues: the changing labour market; the economics of international trade; the distribution of income and wealth; and economics and environmental sustainability.

Outcome 2: Students should be able to explain the factors that affect two economic issues at a local, national and international level and evaluate actions to address the issues.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Analysis of written, visual and statistical evidence
- Folio of applied economic exercises
- Problem-solving tasks
- Folio of annotated media commentaries
- Presentations
- A blog
- Structured questions
- Economic simulation activities
- Fieldwork
- Report of an investigation
- Essay
- Debate
- Case studies
- Tests
- A web page
- Media analysis
- Unit exam

Economics

Unit 3: Australia's living standards

Students investigate the role of the market in allocating resources and examine the factors that affect the price and quantity traded for a range of goods and services. They consider contemporary issues to explain the need for government intervention and why markets might fail to maximise society's living standards. They investigate factors that influence the level of aggregate demand and supply in the economy and use models/theories to explain how changes in these variables influence the achievement of the Australian Government's domestic macroeconomic goals and living standards. Students investigate the importance of international economic relationships in achieving the Australian Government's domestic economic goals and their influence on Australia's living standards.

Areas of Study

1   An introduction to microeconomics: The market system, resource allocation and government intervention

Students investigate the key questions of what and how much to produce, how to produce and for whom to produce. Students investigate demand and supply in markets and may change prices, as well as the movement of land, labour and capital resources to the most productive areas. Students discuss instances where the market fails to allocate resources efficiently and evaluate whether government intervention leads to a more efficient allocation of resources in terms of maximising society's living standards.

Outcome 1: On completion of this unit students explain how markets operate to allocate resources and evaluate the role of markets and government intervention in achieving efficient outcomes.

2   Domestic macroeconomic goals

Students investigate Australia's domestic macroeconomic goals supporting living standards, including strong and sustainable economic growth, full employment and low and stable inflation (price stability). Using the five-sector circular flow model of the macroeconomy, students consider the role of key economic agents and examine the factors that affect the business cycle. Students examine how each of the goals is measured and the potential consequences associated with the level of achievement of each goal. Students examine aggregate demand and aggregate supply factors and how the level of achievement of the goals may affect living standards.

Outcome 2: On completion of this unit the students analyse key contemporary factors that influence the Australian Government's domestic macroeconomic goals over the past two years and how these goals affect living standards.

3   Australia and the international economy

Students examine the reasons for international trade, such as the exchange of goods and services and the movement of savings and investment capital, and how these transactions might affect living standards. Students analyse the movements in the exchange rate, the terms of trade and changes in international competitiveness on the achievement of the domestic macroeconomic goals and living standards.

Outcome 3: On completion of this unit the student should be able to analyse the factors that may affect the exchange rate, terms of trade and Australia's international competitiveness, and discuss their impact on Australia's international transactions and the achievement of the domestic macroeconomic goals and living standards.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A folio of applied economic exercises
- An essay
- A report
- Media analysis
- A case study
- Structured questions.

Economics

Unit 4: Managing the economy

Students investigate how the Australian Government can alter government outlays and receipts to influence aggregate demand and achieve domestic macroeconomic goals and living standards. Students examine the role of the Reserve Bank of Australia's (RBA) monetary policy. Students consider how monetary policy affects interest rates, the transmission mechanism of monetary policy and how this contributes towards the domestic macroeconomic goals and living standards. Students evaluate the strengths and weaknesses of the aggregate demand and supply policies in achieving the domestic macroeconomic goals and living standards.

Areas of Study

1   Aggregate demand policies and domestic economic stability

Students examine how the RBA and the Australian Government can utilise monetary and budgetary policy respectively to affect the level of aggregate demand in the economy. Students discuss the operation of aggregate demand policies and analyse how current aggregate demand policy settings are intended to effect the achievement of the domestic macroeconomic goals and influence living standards. Students analyse the relative strengths and weaknesses of the policies in influencing the domestic macroeconomic goals and living standards.

Outcome 1: *On completion of this unit the student should be able to discuss the operation of aggregate demand policies and analyse their effects on achieving the domestic macroeconomic goals and living standards.*

2   Aggregate supply policies

In this area of study students examine the role of aggregate supply policies in creating a stronger macroeconomic environment so that the domestic macroeconomic goals can be more easily achieved. They investigate the different approaches that policymakers may take to promote efficiency through productivity growth, reductions in the costs of production, and improvements in the quality and quantity of the factors of production. Students analyse how these policies may affect aggregate supply and Australia's international competitiveness and draw conclusions about the effects of these policies on the domestic macroeconomic goals and living standards.

Outcome 2: *On completion of this unit should be able to discuss the operation of aggregate supply policies and analyse the effect of these policies on the domestic macroeconomic goals and living standards.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Report
- Essay
- Structured questions
- Data analysis
- Case study
- Problem-solving exercises
- Folio of applied economic exercises
- An extended response
- Media analysis

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

English

The English language is central to the way in which students understand, critique and appreciate their world and to the ways in which they participate socially, economically and culturally in Australian society. The study of English encourages the development of literate individuals capable of critical and imaginative thinking, aesthetic appreciation and creativity. The diversity of students' different social and cultural backgrounds is recognised in this study as well as the fostering of students' self-esteem by enabling them to use the English language confidently. Language development is treated as an integrated process which brings together the skills of reading, writing, speaking, listening and thinking.

Unit 1

In this unit, students read and respond to texts analytically and creatively. They study ideas, issues and themes in texts in order to develop analytical and writing skills.

Areas of Study

1   Reading and exploring texts

In this area of study, students engage in reading and viewing texts with a focus on personal connections with the story. They discuss and clarify the ideas and values presented by authors through their evocations of character, setting and plot, and through investigations of the point of view and/or the voice of the text. They develop and strengthen inferential reading and viewing skills, and consider the ways a text's vocabulary, text structures and language features can create meaning on several levels and in different ways.

Outcome 1: *On completion of this unit the student should be able to make personal connections with, and explore the vocabulary, text structures, language features and ideas in, a text.*

2   Crafting texts

In this area of study, students engage with and develop an understanding of effective and cohesive writing. They apply, extend and challenge their understanding and use of imaginative, persuasive and informative text through a growing awareness of situated contexts, stated purposes and audience. Students read and engage imaginatively and critically with mentor texts that model effective writing. Through guided reading of mentor texts, students develop an understanding of the diverse ways that vocabulary, text structures, language features and ideas can interweave to craft compelling texts. They consider these texts through knowledge of the ways purpose, context (including mode) and audience influence and shape writing.

Outcome 2: *On completion of this unit the student should be able to demonstrate an understanding of effective and cohesive writing through the crafting of their own texts designed for a specific context and audience to achieve a stated purpose; and to describe individual decisions made about the vocabulary, text structures, language features and conventions used during writing processes.*

Assessment

Satisfactory completion of the outcomes specified for the unit.

English

Unit 2

In this unit, students study ideas, issues and themes in texts. They analyse arguments presented and the use of persuasive language in texts and create their own texts intended to position audiences. Students develop their skills in creating written, spoken and multimodal texts.

Areas of Study

1   Reading and exploring texts

In this area of study, students develop their reading and viewing skills, including deepening their capacity for inferential reading and viewing, to further open possible meanings in a text, and to extend their writing in response to text. Students will develop their skills from Unit 1 through an exploration of a different text type from that studied in Unit 1. Students read or view a text, engaging with the ideas, concerns and tensions, and recognise ways vocabulary, text structures, language features and conventions of a text work together to create meaning. Through discussions about representations in a text, they examine the ways readers understand text considering its historical context, and social and cultural values. They also explore the text through the prism of their own cultural knowledge, experiences and understanding of the world, and extend their observations into analytical and abstracted explorations.

Outcome 1: On completion of this unit the student should be able to explore and analyse how the vocabulary, text structures, language features and ideas in a text construct meaning.

2   Exploring argument

In this area of study, students consider the way arguments are developed and delivered in many forms of media. Through the prism of a contemporary and substantial local and/or national issue, students read, view and listen to a range of texts that attempt to position an intended audience in a particular context. They explore the structure of these texts, including contention, sequence of arguments, use of supporting evidence and persuasive strategies. They closely examine the language and the visuals employed by the author, and offer analysis of the intended effect on the audience. Students apply their knowledge of argument to create a point of view text for oral presentation.

Outcome 2: On completion of this unit the student should be able to explore and analyse persuasive texts within the context of a contemporary issue, including the ways argument and language can be used to position an audience; and to construct a point of view text for oral presentation.

Assessment

Satisfactory completion of the outcomes specified for the unit.

There will be a written examination at the end of the unit.

English

This study aims to enable all students to develop their critical understanding and control of the English language and to employ them effectively for a range of purposes so that they can use it in a wide range of situations, ranging from the personal and informal to more public occasions, and to develop a level of competence adequate for the demands of post-school employment, further education and participation in a democratic society.

Students have different social and cultural backgrounds, and this study is designed to recognise and value this diversity and to foster self-esteem in all students by enabling them to use the English language confidently.

Unit 3

The focus of this unit is on reading and responding to texts analytically and creatively. Students analyse how authors create meaning and the different ways in which texts can be interpreted, studying ideas, issues and themes in texts.

Areas of Study

1   Reading and Responding to Texts

In this area of study, students apply reading and viewing strategies to critically engage with a text, considering its dynamics and complexities and reflecting on the motivations of its characters. They analyse the ways authors construct meaning through vocabulary, text structures, language features and conventions, and the presentation of ideas. They are provided with opportunities to understand and explore the historical context, and the social and cultural values of a text, and recognise how these elements influence the way a text is read or viewed, is understood by different audiences, and positions its readers in different ways.

Outcome 1: *On completion of this unit, unit the student should be able to analyse ideas, concerns and values presented in a text, informed by the vocabulary, text structures and language features and how they make meaning.*

2   Creating Texts

In this area of study, students build on the knowledge and skills developed through Unit 1. They read and engage imaginatively and critically with mentor texts, and effective and cohesive writing within identified contexts. Through close reading, students expand their understanding of the diverse ways that vocabulary, text structures, language features, conventions and ideas can interweave to create compelling texts. They further consider mentor texts through their understanding of the ways that purpose, context (including mode), and specific and situated audiences influence and shape writing.

Outcome 2: *On completion of this unit, the student should be able to demonstrate effective writing skills by producing their own texts, designed to respond to a specific context and audience to achieve a stated purpose; and to explain their decisions made through writing processes.*

Assessment

Satisfactory completion of the outcomes specified for the unit.

English

Unit 4

The focus of this unit is on reading and responding to texts analytically. Students analyse how authors create meaning and the different ways in which texts can be interpreted, studying ideas, issues and themes in texts. They analyse arguments and the use of persuasive language in texts, as well as creating an oral presentation intended to position audiences about an issue currently debated in the media.

Areas of Study

1   Reading and Responding to Texts

In this area of study, students further sharpen their skills of reading and viewing texts, developed in the corresponding area of study in Unit 3. Students consolidate their capacity to critically analyse texts and deepen their understanding of the ideas and values a text can convey.

Students apply reading and viewing strategies to engage with a text, and discuss and analyse the ways authors construct meaning in a text through the presentation of ideas, concerns and conflicts, and the use of vocabulary, text structures and language features. They engage with the dynamics of a text and explore the explicit and implicit ideas and values presented in a text. They recognise and explain the ways the historical context, and social and cultural values can affect a reader, and analyse how these social and cultural values are presented. They establish how these values can influence the way a text is read or viewed, can be understood by different audiences, and can position readers in different ways.

Outcome 1: On completion of this unit, on completion of this unit the student should be able to analyse explicit and implicit ideas, concerns and values presented in a text, informed by vocabulary, text structures and language features and how they make meaning.

2   Analysing Argument

In this area of study, students analyse the use of argument and language, and visuals in texts that debate a contemporary and significant national or international issue. The texts must have appeared in the media since 1 September of the previous year and teachers are advised to work with their students to select an issue of relevance to the cohort. Students read, view and/or listen to a variety of texts from the media, including print and digital, and audio and audio visual, and develop their understanding of the ways in which arguments and language complement one another to position an intended audience in relation to a selected issue.

Outcome 2: On completion of this unit the student should be able to analyse the use of argument and language in persuasive texts, including one written text (print or digital) and one text in another mode (audio and/or audio visual); and develop and present a point of view text.

Assessment

Satisfactory completion of the outcomes specified for the unit.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

English as an Additional Language

EAL Students (Students from Non-English-Speaking Backgrounds)

EAL is integrated with the study of English. Other than the addition of a third Area of Study in Unit 3 ('Listening to text'), EAL students are expected to achieve the same learning outcomes as in English, but they will complete different assessment tasks for Units 3 & 4, with a different allocation of coursework marks. EAL is suitable for students who typically have English language proficiency at a minimum International English Language Testing System (IELTS) of level 4 or its equivalent.

Criteria for Eligibility

A student will be considered eligible for EAL status if both of the following conditions are satisfied:

- The student has been a resident in Australia for a period of not more than seven calendar years immediately prior to 1st of January of the year in which the study is taken at Unit 3 & 4

and

- English has been the student's major language of instruction for a total period of not more than seven years prior to the commencement of the year in which the study is taken at Units 3 & 4.

Special circumstances for EAL status

There are special circumstances that may be considered by the VCAA in determining a student's eligibility for EAL status, including:

- minimal or no primary school education
- material interruptions to schooling during primary years, particularly if there were changes to the language of instruction
- material interruptions to schooling after arrival in Australia.

Areas of Study

1   Listening to text

In this area of study, students develop and refine their listening skills. They listen to a range of spoken texts and use active listening strategies to understand information, ideas and opinions presented in texts. Students develop skills to understand spoken texts on a literal and inferential level, demonstrating an understanding of how spoken texts construct meaning for a variety of listeners. This understanding includes the relationship between the speaker/s and their audience, the purpose of the spoken text and the speaker's views and attitudes and how these affect the structure and language of the spoken text. Students demonstrate their understanding through a range of spoken, written and visual forms, including class discussion, note-taking and responses to short-answer questions.

Outcome 3: *On completion of this unit, the student should be able to comprehend a spoken text.*

Assessment

Satisfactory completion of the outcomes specified for the unit.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

English Language

Unit 1: Language and Communication

The focus of this unit is language and its use in communication. The use of language is an essential aspect of human behaviour, the means by which individuals relate to the world, to each other, and to the community of which they are members. This unit focuses on the nature and functions of language itself and the way language is organised so that it provides its users with the means by which they can make sense of their experience and have contact with others. It enables students to explore the informational and expressive functions of language, the nature of language as a highly elaborate system of signs, the development of language in an individual, and the relationship between speech and writing as the dominant modes of use.

Areas of study

1   The nature and functions of language

This area of study provides students with an understanding of the nature of language and how language can be used for a variety of functions. It also explores the properties that distinguish human communication as unique.

Outcome 1: *On completion of this unit the student should be able to identify and describe primary aspects of the nature and functions of human language.*

2   Language acquisition

This area of study focuses on the developmental stages of child language acquisition and what children need to learn as they develop from babyhood to early adolescence. In addition to words and their meanings, children learn to use the phonological and grammatical conventions of the language, as well as the appropriate use of these conventions in different social situations.

Outcome 2: *On completion of this unit, the student should be able to describe what children learn when they acquire language and discuss a range of perspectives on how language is acquired.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Tests
- Short-answer questions
- Written analysis of written and spoken discourse
- Essays

Please Note:

Students must satisfactorily complete Units 1 & 2 English Language before undertaking Units 3 & 4.

English Language

Unit 2: Language Change

The focus of this unit is language change. Languages are dynamic and change is an inevitable and a continual process. Engaging with texts from the past can show us how all subsystems of the language system are affected – phonetics and phonology, morphology and lexicology, syntax, discourse and semantics – as well as how English has transformed over the centuries and how it continues to evolve today. This unit explores how the global spread of English has led to a diversification of the language, and to English now being used by more people as an additional or a foreign language than as a first language. Students consider the cultural repercussions of the spread of English.

Areas of study

1   English across time

This area of study introduces the idea of language families, in particular the Indo-European language family, of which English is a member. It examines the origins of English as a Germanic language and traces its development from Old through to Early Modern English, and the establishment of a standard language in the eighteenth century. The development of Australian English is explored. The general concept of standardisation and the notion of 'correct English' are examined, emphasising that standard languages do not arise because of any inherent quality, but more as geographical and historical accidents.

Outcome 1: *On completion of this unit, the student should be able to describe language change as represented in a range of texts and analyse a range of attitudes to language change.*

2   Englishes in contact

This area of study considers 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 significant repercussions of language contact. Students explore factors that have contributed to the spread of English in the past, such as trade and colonisation, and the consequences of the growth of English as an additional or foreign language. Students develop an understanding of how change to a language has significant repercussions for its users' cultural identity and worldview.

Outcome 2: *On completion of this unit, the student should be able to describe and explain the effects of the global spread of English in terms of both conformity and diversity, through a range of spoken and written texts.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Tests
- Short-answer questions
- Written analysis of written and spoken discourse
- Essays

Please Note:

Students must satisfactorily complete Units 1 & 2 English Language before undertaking Units 3 & 4.

English Language

Unit 3: Language variation and social purpose

The focus of this unit is English language in the Australian social setting, along a continuum of informal and formal registers. Language is a means of social interaction where we communicate information, ideas, attitudes, prejudices and ideological stances through written and spoken texts. Students examine the stylistic features of formal and informal language in both spoken and written modes. How texts are influenced by the situational and cultural contexts in which they occur is considered. Students examine how function, field, mode, setting and the relationships between participants all contribute to a person's language choice, as do the values, attitudes and beliefs held by participants and the wider community.

Areas of Study

1   Informal language

This area of study allows students to consider the features and functions of informal language in written, spoken and electronic interactions, understanding that the situational and cultural context of an exchange determines the language used. Students investigate how informal language can be used to meet participants' positive face needs (the need to be liked, respected and treated as a member of a group), how informal language choices can build rapport by encouraging inclusiveness, intimacy, solidarity and equality, and how informal language features such as slang and swearing patterns are particularly important in encouraging linguistic innovation and in-group membership.

Outcome 1: *On completion of this unit, the student should be able to identify and analyse distinctive features of informal language in written and spoken texts.*

2   Formal language

This area of study focuses on the way speakers and writers choose from a repertoire of language in order to achieve a particular purpose. As with informal language, the situational and cultural context determines whether people use formal language and in what mode they choose to communicate. Students investigate how formal language can be used to meet participants' negative face needs: the need to be autonomous and act without imposition from others. Texts in which speakers and writers use formal language to clarify, manipulate or obfuscate, particularly in public language, are examined. Students learn that formal language enables users to carefully negotiate social taboos through the employment of euphemisms, non-discriminatory language and political correctness.

Outcome 2: *On completion of this unit, the student should be able to identify and analyse distinctive features of formal language in written and spoken texts.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks will take any one or a combination of the following formats:

- Short answer test
- Folio
- Analytical commentary of written and spoken discourse
- Essay

English Language

Unit 4: Language variation and identity

The focus of this unit is on the role of language in establishing and challenging different identities. Students examine both print and digital texts to consider the ways different identities are constructed. Students explore how our sense of who we are is constantly evolving and responding to the situations in which we find ourselves and is determined not only by how we see ourselves, but by how others see us. Through our language, we establish how we are unique as individuals, as well as signalling our membership of particular groups.

Areas of Study

1   Language variation in Australian society

This area of study enables students to understand the range of language varieties that exist in contemporary Australian society and the contributions these varieties make to a shared identity.

Outcome 1: On completion of this unit, the student should be able to investigate and analyse varieties of Australian English and attitudes towards them.

2   Individual and group identities

In this area of study students focus on the role of language in reflecting and constructing individual and group identities. They learn that language users are able to play different roles within speech communities and are able to construct their identities through subconscious and conscious language variation according to age, gender, occupation, interests, aspiration and education. Students learn how language can function as a social disadvantage for people in different language communities and how social attitudes, personal associations and prejudices of individual speakers can lead to discrimination against the use of non-standard dialects and accents.

Outcome 2: On completion of this unit, the student should be able to analyse how people's choice of language reflects and constructs their identities.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks will include any one or a combination of the following formats:

- Short answer test
- Folio
- Analytical commentary of written and spoken discourse
- Essay

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Environmental Science

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

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

Areas of Study

1   How are earths systems organised and connected?

Living organisms are able to survive in ecosystems as diverse as deserts, sea beds, the tropics and Antarctica, as well as in backyard gardens and ponds. In this area of study students analyse the range of components and processes that contribute to ecosystem functioning, and examine how events occurring in one of Earth's four interrelated systems can affect all systems to support life on Earth.

Outcome 1: *On completion of this unit the student should be able to describe the movement of energy and nutrients across Earth's four interrelated systems, and analyse how dynamic interactions among biotic and abiotic components of selected local and regional ecosystems contribute to their capacity to support life and sustain ecological integrity.*

2   How do Earth's systems change over time?

In this area of study students compare Earth's changing features, examine different ways to measure and make predictions about changes in Earth's four systems, and explore different options for managing environmental changes and challenges.

Outcome 2: *In this area of study students compare Earth's changing features, examine different ways to measure and make predictions about changes in Earth's four systems, and explore different options for managing environmental changes and challenges.*

3   How do scientific investigations develop understanding of how Earth's systems support life?

Ecosystems are subject to change in response to biotic or abiotic disturbances, or variations in the magnitude or frequency of disturbances, which can have flow-on effects for the atmosphere, biosphere, hydrosphere and lithosphere. In this area of study students adapt or design and then conduct a scientific investigation into the monitoring of ecosystems or their components and/or change in ecosystems. The investigation must include the generation of primary data.

Outcome 3: *On completion of this unit the student should be able to draw an evidence-based conclusion from primary data generated from a student-designed or student-adapted scientific investigation related to ecosystem components, ecosystem monitoring and/or change affecting Earth's systems.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Unit 1 and 2 may include:

- A fieldwork report/case study
- A report of a practical activity
- Annotations of practical work
- A research investigation
- A reflective journal/blog
- A logbook of practical activities
- Analysis of data
- Media analysis/report
- Test, multiple choice, short answer and/or extended response
- A report of a student-designed and/or adapted and/or extended practical investigation
- Problem-solving

Environmental Science

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

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

Areas of Study

1   How can we manage pollution to sustain Earth's systems?

In this area of study students link the characteristics of pollutants to their impacts on Earth's four interrelated systems, and examine emerging opportunities to mitigate pollution discharge and manage the adverse effects of pollution for living and non-living things.

Outcome 1: *On completion of this unit the student should be able to explain how the chemical and physical characteristics of pollutants impact on Earth's four systems, and recommend and justify a range of options for managing the local and global impacts of pollution.*

2   How can we manage food and water security to sustain Earth's systems?

In this area of study students examine various approaches for meeting the food and water security challenges facing current and future populations of humans and other species, while minimising negative environmental impacts. Students apply ecological footprint analysis to a selected context and explore options for addressing food and water challenges for a nominated region.

Outcome 2: *On completion of this unit the student should be able to compare the advantages and limitations of different agricultural systems for achieving regional and global food security, evaluate the use of ecological footprint analysis for assessing future food and/or water security, and recommend and justify a range of options for improving food and/or water security for a nominated region.*

3   How do scientific endeavors contribute to minimising human impacts on Earth's systems?

In this area of study students investigate a contemporary example of how science is influenced by, and responds to, the needs and priorities of society in managing a selected pollutant of interest and/or in securing water or food. Students select and explore a recent discovery, innovation, issue, advance or case study linked to their knowledge and skills developed in Area of Study 1 and/or Area of Study 2. Stimulus material for the investigation could include announcements of recent discoveries, an expert's published point of view, an interview with an expert, an online presentation, an article from a scientific publication, public concern about an issue, 'green field' research leading to new technologies, or changes in government funding for environmental science purposes such as maximum sustainable yields in fisheries or the social impacts of resource extraction.

Outcome 3: *On completion of this unit the student should be able to investigate and explain how science can be applied to address the impacts of natural and human activities in the context of the management of a selected pollutant and/or the maintenance of food and/or water security.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Unit 1 and 2 may include:

- A fieldwork report/case study
- A report of a practical activity
- Annotations of practical work
- A research investigation
- A reflective journal/blog
- A logbook of practical activities
- Analysis of data
- Media analysis/report
- Test, multiple choice, short answer and/or extended response
- A report of a student-designed and/or adapted and/or extended practical investigation
- Problem-solving

Environmental Science

Unit 3: How can biodiversity and development be sustained?

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

Areas of Study

1   Why is maintaining biodiversity worth a sustained effort?

In this area of study students use biodiversity as a lens through which to investigate the management of a single Earth system – the biosphere. They examine the categories of biodiversity, the role of biodiversity in sustaining ecosystems, the provision of ecosystem services for human well-being and the strategies employed to counteract threats, both natural and human-induced, to maintain biodiversity in the short-, medium- and long-term.

Outcome 1: *On completion of this unit the student should be able to explain the importance of Earth's biodiversity and how it has changed over time, analyse the threats to biodiversity, and evaluate management strategies to maintain biodiversity in the context of one selected threatened endemic species.*

2   When is development sustainable?

Society requires sustainable solutions for the environmental challenges it is facing today. In this area of study students explore variations in definitions of sustainability and consider how these may be interpreted and applied in addressing a selected environmental science case study.

Outcome 2: *On completion of this unit the student should be able to explain how sustainability principles relate to environmental management, analyse how stakeholder perspectives can influence environmental decision-making, and evaluate the effectiveness of environmental management strategies in a selected case study.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Unit 3 & 4 will include:

* presentation of recommendations using evidence-based decision-making including analysis and evaluation of primary data
* designed or practical response to a real or theoretical environmental issue or challenge
* application of Earth systems thinking in the evaluation of a response to an environmental scenario, case study, issue or challenge.
* analysis and evaluation of a case study, secondary data or a media communication, with reference to sustainability principles and stakeholder perspectives

Environmental Science

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

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

Areas of Study

1   How can we respond to climate change?

In this area of study students investigate natural as well as human-based factors that affect Earth's climate. Students compare natural and enhanced greenhouse effects and their significance for sustaining ecological integrity. They explain different methods for measuring and predicting climate change, and consider the degree of certainty associated with climate projections. Students explore risks and opportunities for human societies and ecological systems associated with climate change at a selected region or location, and evaluate mitigation and adaptation strategies for managing climate change.

Outcome 1: On completion of this unit the student should be able to analyse the major factors that affect Earth's climate, explain how past and future climate variability can be measured and modelled, and evaluate options for managing climate change.

2   What might be a more sustainable mix of energy sources?

In this area of study students explore the concepts associated with the use of different energy sources by human societies. Students develop their understanding of the advantages and disadvantages of the uses of different sources of energy and consider the local and global impacts of these uses, including possible consequences over short (seconds to years), medium (multiple years to hundreds of years) and long (thousands to millions of years) time scales. They investigate the extent, availability and consequences of selecting alternative sources of energy for meeting current and projected energy demands, while considering the environmental, sociocultural, economic and ethical challenges involved in building a sustainable energy future.

Outcome 2: On completion of this unit the student should be able to compare the advantages and disadvantages of using a range of energy sources, and evaluate the suitability and impacts of their use in terms of upholding sustainability principles.

3   How is scientific inquiry used to investigate contemporary environmental challenges?

Students undertake a student-designed scientific investigation which involves the generation of primary data related to biodiversity, environmental management, climate change and/or energy use, and should be inspired by a contemporary environmental science challenge or issue.

Outcome 3: On completion of this unit the student should be able to design and conduct a scientific investigation related to biodiversity, environmental management, climate change and/or energy use, and present an aim, methodology and method, results, discussion and a conclusion in a scientific poster.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Refer to Unit 3 for types of assessment tasks.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	50%

Food Studies

Unit 1: Food origins

Unit 1 focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world. They explore how humanity has historically sourced its 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 particular food-producing regions of the world.

Students 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. They consider the influence of technology and globalisation on food patterns.

Areas of Study

1   Food around the world

In this area of study students explore the origins and cultural roles of food, from early civilisations through to today's industrialised and global world. Through an overview of the earliest food production regions and systems, students gain an understanding of the natural resources, climatic influences and social circumstances that have led to global variety in food commodities, cuisines and cultures with a focus on one selected region other than Australia. The practical component explores the use of ingredients available today that were used in earlier cultures. It also provides opportunities for students to extend and share their research into the world's earliest food-producing regions, and to demonstrate adaptations of selected food from earlier cuisines.

Outcome 1: *On completion of this unit the student should be able to identify and explain major factors in the development of a globalised food supply and demonstrate adaptations of selected food from earlier cuisines through practical activities..*

2   Food in Australia

In this area of study students focus on the history and culture of food in Australia. They look at indigenous food prior to European settlement and the attempts of the first non-indigenous settlers to establish a secure and sustainable food supply. Students consider the development of food production, processing and manufacturing industries and conduct a critical inquiry into how Australian food producers and consumers today have been influenced by immigration and other cultural factors. Students conduct research into foods and food preparation techniques introduced by immigrants over time and consider the resurgence in interest in indigenous food practices, while reflecting on whether Australia has developed a distinctive cuisine of its own.

Outcome 2: *On completion of this unit the student should be able to describe patterns of change in Australia's food industries and cultures and use foods indigenous to Australia and those introduced through migration in the preparation of food products.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A range of practical activities, with written records
- Practical demonstration
- Tests (practical, short and/or extended answer)
- Short written reports / knowledge check questions
- Oral reports supported by visual presentations
- Production work

NB: Practical work comprises approximately one-third of the course.

Food Studies

Unit 2: Food makers

In Unit 2 students investigate food systems in contemporary Australia. 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. They 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.

Areas of Study

1   Food industries

In this area of study students focus on commercial food production in Australia, encompassing primary production and food processing and manufacturing, and the retail and food service sectors. Students apply an inquiry approach, with emphasis on the ever-changing and dynamic nature of our food industries and their ongoing importance to Australia's economy. Students investigate the characteristics of the various food industries and identify current and future challenges and opportunities. They consider the influences on food industries, and in turn how they influence people. Students investigate new food product development and innovation, and the processes in place to ensure a safe food supply. Students undertake a practical component, creating new food products using design briefs, and applying commercial principles such as research, design, product testing, production, evaluation and marketing.

Outcome 1: *On completion of this unit the student should be able to describe Australia's major food industries, analyse relationships between food suppliers and consumers, discuss measures in place to ensure a safe food supply and design a brief and a food product that demonstrates the application of commercial principles.*

2   Food in the home

In this area of study students further explore food production, focusing on domestic and small-scale food production. Students compare similar products prepared in different settings and evaluate them using a range of measures. They consider the influences on the effective provision and preparation of food in the home. Their practical skills are extended through designing and adapting recipes, encompassing a range of dietary requirements commonly encountered by the food service sector and within families. Students propose and test ideas for applying their food skills to entrepreneurial projects that potentially may move their products from a domestic or small-scale setting to a commercial context.

Outcome 2: *On completion of this unit the student should be able to compare and evaluate similar foods prepared in different settings, explain the influences on effective food provision and preparation in the home, and design and create a food product that illustrates potential adaptation in a commercial context.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

* Designing and developing a solution in response to a design brief, including practical work
* A range of practical activities, with written records
* Tests (practical, short and/or extended answer)
* Short written reports / knowledge check questions
* Oral reports supported by visual presentations
* Production work.

NB: Practical work comprises approximately one-third of the course.

Food Studies

Unit 3: Food in daily life

Unit 3 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 and develop their understanding of diverse nutrient requirements.

Students investigate the 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.

The practical component of this unit enables students to understand food science terminology and to apply specific techniques to the production of everyday food that facilitates the establishment of nutritious and sustainable meal patterns.

Areas of Study

1   The science of food

In this area of study students focus on the science of food. They investigate the physiology of eating and microbiology of digesting, and the absorption and utilisation of macronutrients. They investigate food allergies, food intolerances and the microbiology of food contamination. By identifying evidence-based principles, students develop their capacity to analyse advice on food choices. Students learn and apply food science terminology relating to chemical changes that occur during food preparation and cooking, and undertake hands-on experimentation to demonstrate techniques and effects. They apply knowledge in the safe production of nutritious meals.

Outcome 1: On completion of this unit the student should be able to explain the processes of eating and digesting food and absorption of macronutrients, explain causes and effects of food allergies, food intolerances and food contamination, analyse food selection models, and apply principles of nutrition and food science in the creation of food products.

2   Food choice, health and wellbeing

In this area of study students focus on patterns of eating in Australia and the influences on the food we eat. Students look at relationships between social factors and food access and choice, as well as the social and emotional roles of food in shaping and expressing identity, and how food may link to psychological factors. They inquire into the role of media, technology and advertising as influences on the formation of food habits and beliefs, and investigate the principles of encouraging healthy food patterns in children. In this area of study students undertake a practical component developing a repertoire of healthy meals suitable for children and families.

Outcome 2: On completion of this unit the student should be able to explain and analyse factors affecting food access and choice, analyse the influences that shape an individual's food values, beliefs and behaviours, and apply practical skills to create a range of healthy meals for children and families.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessments may include:

- A range of practical activities with written records
- A short written report: media analysis, research inquiry, structured questions, case study analysis
- An annotated visual report
- An oral presentation or a practical demonstration
- A video or podcast.

Food Studies

Unit 4: Food issues, challenges and futures

In Unit 4 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.

Students investigate individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices. Students consider how to assess information and draw evidence-based conclusions. 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.

Areas of Study

1   Environment and ethics

In this area of study students address debates concerning Australian and global food systems, relating to issues on the environment, ethics, technologies, food access, food safety, and the use of agricultural resources. Students conduct a critical inquiry into a range of debates through identifying issues involved, forming an understanding of current situations and considering possible futures. They research one selected debate in depth, seeking clarity on disparate points of view, considering proposed solutions and analysing work undertaken to solve problems and support sustainable futures. Students will consider environmental and ethical issues relating to the selected debate and apply their responses in practical ways.

Outcome 1: *On completion of this unit the student should be able to explain a range of food systems issues, respond to a selected debate with analysis of problems and proposals for future solutions, apply questions of sustainability and ethics to the selected food issue and develop and create a food repertoire that reflects personal food values and goals.*

2   Navigating food information

In this area of study students focus on food information and misinformation and the development of food knowledge, skills and habits. Students learn to assess information and draw evidence-based conclusions to navigate contemporary food fads, trends and diets. They investigate a selected food fad, trend or diet and assess its credibility and the reliability of its claims, taking into consideration the evidenced-based recommendations of the Australian Dietary Guidelines and the Australian Guide to Healthy Eating. Students practise and improve their food selection skills by interpreting food labels and interrogating the marketing terms on food packaging.

Outcome 2: *On completion of this unit the student should be able to explain a variety of food information contexts, analyse the formation of food beliefs, evaluate a selected food trend, fad or diet and create food products that meet the Australian Dietary Guidelines.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessments may include:

- A range of practical activities with written records
- A written report
- A short written report: media analysis, research inquiry, structured questions, case study analysis
- An annotated visual report
- An oral presentation or a practical demonstration
- A video or podcast.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	30%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	40%

Foundation Mathematics

Units 1 & 2

Foundation Mathematics Units 1 & 2 focuses 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. 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. Students should have an appropriate level of competency with relevant mental and by-hand approaches to estimation and computation. This course leads to Foundation Mathematics Units 3 & 4.

Please Note: All students are expected to have a scientific calculator.

Areas of Study

1   Algebra, number and structure

This area of study covers estimation, and the use and application of different forms of number and related calculations. It will also explore the representation of generalisations and patterns in number in practical, everyday and work contexts.

2   Data analysis, probability and statistics

Throughout this area of study students will cover the collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts, including consideration of suitable forms of data representation.

3   Discrete mathematics

In this area of study students will explore the use of number and calculations, and their application in relation to the understanding and management of personal, local and national financial matters.

4   Space and measurement

Students will investigate the use and application of measurement, shape and location in a variety of domestic societal, industrial and commercial contexts.

The following Outcomes encompass all of the selected areas for each Unit.:

Outcome 1: *On completion of this unit the student should use and apply a range of mathematical concepts, skills and procedures from selected areas of study to solve practical problems based on a range of everyday and real-life contexts.*

Outcome 2: *On completion of this unit the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.*

Outcome 3: *On completion of this unit the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches..*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Mathematical investigation tasks
- Tests
- Assignments
- Examinations

Further Mathematics

Unit 3 & 4

Foundation Mathematics Units 3 & 4 focuses on providing students with the mathematical knowledge, skills, understanding to solve problems in real contexts for a range of workplace, personal, further learning, community and global settings relevant to contemporary society. Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, contemporary data displays, diagrams, plans, geometric objects and constructions, algebra, algorithms, measures, equations and graphs. Students should have an appropriate level of competency with relevant mental and by-hand approaches to estimation and computation.

Please Note: All students are expected to have a scientific calculator.

Area of Study

1 Algebra, number and structure

This area of study covers estimation, and the use and application of different forms of numbers and calculations, algorithmic and computational thinking, and the representation of formal mathematical expressions and processes to solve practical problems in community, business and industry contexts.

2 Data analysis, probability and statistics

Throughout this area of study students will cover the collection, presentation and analysis of gathered and provided data from community, work, recreation and media contexts, including consideration of suitable forms of data representation. This will incorporate the ability to critically reflect on statistical data and results, and communicate and report on the outcomes and any implications.

3 Discrete mathematics

In this area of study students will explore the use and application different forms of number and calculations, and their application in relation to the analysis of, and critical reflection on, personal, local, national and global financial, consumer and global matters.

4 Space and measurement

This area of study covers the use and application of the metric system and related measurement in a variety of domestic, societal, industrial and commercial contexts, including consideration of accuracy, precision and error.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: *On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures to solve practical problems from a range of everyday and real-life contexts.*

Outcome 2: *On completion of this unit the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.*

Outcome 3: *On completion of this unit the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Mathematical investigations
- Examinations

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	60%
Unit 3 & 4 Examination	40%

General Mathematics

Units 1 & 2

This course provides a study of mathematics for a broad range of students. Students will be expected to apply techniques, routines and processes involving rational and real arithmetic, sets, lists, tables and matrices, diagrams and geometric constructions, algorithms, algebraic manipulation, recurrence relations, equations and graphs. They should have competency with relevant mental and by-hand approaches to estimation and computation.

This course leads to General Mathematics Units 3&4.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1   Data analysis, probability and statistics

In this area of study students will cover univariate and bivariate data.

2   Algebra, number and structure

This area of study will explore the concept of a sequence and its representation by rule, table and graph. Arithmetic and geometric sequences will be explored through simple financial and other applications.

3   Discrete Mathematics

This area of study covers matrices and, graphs and networks. Students will explore their use in modelling across a range of practical scenarios and solve related problems.

4   Functions, relations and graphs

Throughout this area of study students will study linear functions and relations, direct and inverse variation, transformations and non-linear data. This will be explored through a variety of modelling and applied contextual scenarios.

5   Space and measurement

In this area of study students will cover measurement in two and three dimensions, and explore practical applications involving simple and composite shapes and objects. They will also explore problems involving navigation and Pythagoras' theorem and their applications in the plane.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: *On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.*

Outcome 2: *On completion of this unit the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.*

Outcome 3: *On completion of this unit the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Mathematical investigation tasks
- Tests
- Problem-solving tasks
- Examinations

General Mathematics

Units 3 & 4

General Mathematics focuses on real-life application of mathematics. In undertaking this course, 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 competency with relevant mental and by-hand approaches to estimation and computation.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1   Data analysis, probability and statistics

This area of study covers the investigation of data distributions and association between two variables. It also covers investigation and modelling of linear associations and time series data.

2   Discrete mathematics

Throughout this area of study students will explore three key areas 'Recursion and financial modelling', 'Matrices' and 'Networks and decision mathematics'.

Throughout the area of recursion and financial modelling, students will cover the use of first–order linear recurrence relations and the time value of money (TVM) to model and analyse a range of financial situations, and using technology solve related problems involving interest, appreciation and depreciation, loans, annuities and perpetuities.

In the area of matrices, students will cover the various definitions of matrices and use first-order linear matrix recurrence relations to model and range of situations and solve related problems.

Throughout the area of networks and decision mathematics, students cover the definition and representation of different kinds of undirected and directed graphs, and the use of networks to the model and solve problems involving travel, connection, flow, matching, allocation and scheduling.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: *On completion of this unit the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.*

Outcome 2: *On completion of this unit the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.*

Outcome 3: *On completion of this unit the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Application tasks
- Modelling or Problem-solving tasks
- Examinations

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	40%
Unit 3 & 4 Examination 1	30%
Unit 3 & 4 Examination 2	30%

Geography

Unit 1: Hazards and disasters

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

Students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them. Students examine the processes involved with hazards and hazard events, considering their causes and impacts, human responses to hazard events and the interconnections between human activities and natural phenomena, including the impact of climate change.

There may be considerable interconnection between the causes and types of hazards. For example, a region may be at risk from a number of hazards: high seasonal rainfall may result in a primary flood hazard which may in turn generate a secondary hazard of landslides. Students undertake fieldwork and produce a fieldwork report using the structure provided.

Areas of Study

1 Characteristics of hazards

In this area of study students examine hazards and hazard events, and analyse the impacts of hazard events. They study at least two specific hazards at different scales. Students select one hazard from at least two different types of hazards listed above, for example, coastal hazards and an alien animal invasion, or floods and oil spills. The selection of hazards should allow students to use visual representations and topographical maps at various scales and to undertake fieldwork.

Outcome 1: *On completion of this unit the student should be able to analyse, describe and explain the nature of hazards and impacts of hazard events at a range of scales.*

2 Responses to hazards and disasters

In this area of study students distinguish between a hazard and a hazard event, which can result in a disaster depending on its impact and interconnections. They explore the nature and effectiveness of specific measures such as prediction and warning programs, community preparedness and land use planning, as well as actions taken after hazards become harmful and destructive disasters. Students consider natural and human factors influencing the nature of responses, considering the scale of the hazard, levels of risk due to hazards, past experiences and perceptions of similar hazards and hazard events, the capacity of government organisations and communities to act, issues and challenges that arise from responses to hazards and hazard events, available technological resources and the ability to plan and develop effective prevention and mitigation measures. Students investigate the responses to the hazards selected in Area of Study 1, with reference to a variety of locations.

Outcome 2: *On completion of this unit the student should be able to analyse and evaluate the nature, purpose and effectiveness of a range of responses to selected hazards and disasters.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Recording and Reporting on data collected in the field
- Data processing, analysis and presentation
- Research Reports
- Written Responses
- Tests
- Oral presentations
- Unit exam

Geography

Unit 2: Tourism

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

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

Areas of Study

1 Characteristics of tourism

In this area of study students examine the characteristics of tourism, the location and distribution of different types of tourism and tourist destinations and the factors affecting different types of tourism. Students support this investigation with contrasting examples from within Australia and elsewhere in the world. They investigate in detail at least one tourism location using appropriate fieldwork techniques, and one other location elsewhere in the world. The selection of examples should allow students to work with a range of information sources, for example statistical data, digital images, streamed video and a variety of maps at various scales, as well as undertake fieldwork.

Outcome 1: On completion of this unit the student should be able to analyse the nature of tourism at a range of scales.

2 Impact of tourism: issues and challenges

In this area of study students explore the environmental, economic, social and cultural impacts of different types of tourism, and the issues and challenges that these create for people and the environment. They investigate at least one tourism location using appropriate fieldwork techniques, and one location elsewhere in the world that requires an investigation of ethical tourism. Students evaluate the effectiveness of measures taken to enhance the positive impacts and/or to minimise the negative impacts at these locations. This fieldwork site could be the same fieldwork site explored in Area of Study 1. They investigate the interconnection of the two selected locations with their surrounding region and national context.

Outcome 2: On completion of this unit the student should be able to analyse and explain the impacts of tourism on people, places and environments and evaluate the effectiveness of strategies for managing tourism.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Recording and Reporting on data collected in the field
- Data processing, analysis and presentation
- Research Reports
- Written Responses
- Tests
- Oral presentations
- Unit exam

Geography

Unit 3: Changing the land

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

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.

People have modified land cover to produce a range of land uses to satisfy needs such as housing, resource provision, communication and recreation. Land use change is a characteristic of both urban and rural environments and occurs at both spatial and temporal 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 using the structure provided. They develop a research question and hypothesis and use both primary and secondary sources to collect data. Fieldwork techniques including geospatial technologies are employed to collect and present data.

Areas of Study

1   Land use change

In this area of study students undertake an overview of global land cover and changes that have occurred over time. Students investigate two major processes that are changing land cover: melting glaciers and ice sheets, and deforestation. They analyse these processes, explain their impacts on land cover and discuss responses to these land cover changes in two different locations in the world – one location for each process. Students evaluate two different global responses to the impacts of land cover change, one global response for each process.

Outcome 1: On completion of this unit the student should be able to analyse processes that result in changes to land cover and evaluate the impacts and responses resulting from these changes.

2   Land cover change

In this area of study students select a local area and use appropriate fieldwork techniques and secondary sources to investigate the nature, processes and impacts of land use change. This change may have recently occurred, be underway or be planned for the near future.

Outcome 2: On completion of this unit the student should be able to analyse land use change and evaluate its impacts.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Fieldwork report
- Structured questions
- Analysis of geographic data

Geography

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 responses to 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.

The growth of the world's population from 2.5 billion in 1950 to over 7 billion since 2010 has been on a scale without parallel in human history. Populations change through growth and decline in fertility and mortality, and by people moving to different places. The Demographic Transition Model and population structure diagrams provide frameworks for investigating the key dynamics of population.

Population movements such as voluntary and forced movements over long or short terms add further complexity to population structures and to environmental, economic, social, and cultural conditions. Many factors influence population change. Students investigate the interconnections between the reasons for population change. They evaluate strategies developed in response to population issues and challenges, in both a growing population trend of one country and an ageing population trend of another country, in different parts of the world.

Areas of Study

1 Population dynamics

In this area of study students undertake an overview of world population distribution and growth before investigating the dynamics of population change over time and space. Through the study of population dynamics students investigate growth and decline in fertility and mortality, together with population movements. Students study forced and voluntary, and internal and external, population movements and how they can be long term or short term. The study is supported with examples from within and between countries with different economic and political conditions and social structures that illustrate the dynamics of population. Students develop understanding of the Demographic Transition Model and its applications, and the Malthusian theory of population.

Outcome 1: On completion of this unit the student should be able to analyse and discuss population dynamics on a global scale.

2 Population issues and challenges

Students undertake investigations into two countries with significant population trends in different parts of the world: a growing population of one country and an ageing population of another country. Students place these trends and resulting issues and challenges in their world regional context. Issues resulting from these population trends include, among others, meeting the differing economic and social needs of the people for each country and the needs of the environment. Students investigate issues arising from each population trend and the challenges that arise in coping with the issues. Students study the interconnection between these issues and challenges with population dynamics. Students evaluate the effectiveness of strategies in response to these issues and challenges. Strategies can be selected from government and/or non-government organisations. Comparison of strategies is undertaken within each selected country.

Outcome 2: On completion of this unit the student should be able to analyse the nature of significant population issues and challenges in selected countries and evaluate strategies in response to these.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A research report
- Analysis of geographic data
- A case study

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Health and Human Development

Unit 1: Understanding health and wellbeing

This unit looks at health and wellbeing as a concept with varied and evolving perspectives and definitions.

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

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

Areas of Study

1   Health perspectives and influences

This area of study takes a broad, multidimensional approach to health and wellbeing which acknowledges that defining and measuring these concepts is complicated by a diversity of social and cultural contexts. Students consider the influence of age, culture, religion, gender and socioeconomic status on perceptions of and priorities relating to health and wellbeing. They look at measurable indicators of population health, and at data reflecting the health status of Australians. With a focus on youth, students enquire into reasons for variations and inequalities in health status, including sociocultural factors that contribute to variations in health behaviours.

Outcome 1: *On completion of this unit the student should be able to explain multiple dimensions of health and wellbeing, explain indicators used to measure health status and analyse factors that contribute to variations in health status of youth.*

2   Health and Nutrition

This area of study explores food and nutrition as foundations for good health and wellbeing. Students investigate the roles and sources of major nutrients and the use of food selection models to promote healthy eating. They look at the consequences of dietary imbalance and consider the social, cultural and political factors that influence the food practices of and food choices made. They develop strategies for building health literacy and evaluating nutrition information from various sources, including advertisements and social media.

Outcome 2: *On completion of this unit the student should be able to apply nutrition knowledge and tools to the selection of food and the evaluation of nutrition information.*

3 Youth health and wellbeing

In this area of study students focus on the health and wellbeing of Australia's youth, and conduct independent research into a selected area of interest. Students identify major health inequalities among Australia's youth and reflect on the causes. They apply research skills to find out what young people are most focused on and concerned about with regard to health and wellbeing. Students inquire into how governments and organisations develop and implement youth health programs, and consider the use of health data and the influence of community values and expectations. Students select a particular focus area and conduct research, interpret data and draw conclusions on how the health and wellbeing of Australia's youth can be promoted and improved.

Outcome 3: *On completion of this unit the student should be able to interpret data to identify key areas for improving youth health and wellbeing, and plan for action by analysing one particular area in detail.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- Case study analysis
- Data analysis
- Blog
- Test
- Oral presentation
- Visual presentation
- Written response

Health and Human Development

Unit 2: Managing health and development

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

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

Areas of Study

1 Developmental transitions

This area of study examines the developmental transitions from youth to adulthood, with a focus on expected changes, significant decisions, and protective factors, including behaviours. Students consider perceptions of what it means to be a youth and an adult and investigate the expected physical and social changes. They inquire into factors that influence both the transition from youth to adulthood and later health status. They consider the characteristics of respectful, healthy relationships. Students examine parenthood as a potential transition in life. With a focus on the influence of parents/carers and families, students investigate factors that contribute to development, health and wellbeing during the prenatal, infancy and early childhood stages of the lifespan. Health and wellbeing is considered as an intergenerational concept (that is, the health and wellbeing of one generation affects the next).

Outcome 1: *On completion of this unit the student should be able to explain developmental changes in the transition from youth to adulthood, analyse factors that contribute to healthy development during prenatal and early childhood stages of the lifespan and explain health and wellbeing as an intergenerational concept.*

2 Health care in Australia

This area of study investigates the health system in Australia. Students examine the functions of various entities that play a role in our health system. They inquire into equity of access to health services, as well as the rights and responsibilities of individuals receiving care. Students research the range of health services in their communities and suggest how to improve health and wellbeing outcomes and health literacy in Australia. They explore a range of issues associated with the use of new and emerging health procedures and technologies such as reproductive technologies, artificial intelligence, robotics, nanotechnology, three-dimensional printing of body parts and use of stem cells.

Outcome 2: *On completion of this unit the student should be able to describe how to access Australia's health system, explain how it promotes health and wellbeing in their local community, and analyse a range of issues associated with the use of new and emerging health procedures and technologies.*

Assessment

The majority of the assessment will be completed in class and within a limited time frame. Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks include:

- Case study analysis
- Data analysis
- Visual presentation
- Blog
- Oral presentation
- Test
- Written response

Health and Human Development

Unit 3: Australia's health in a globalised world

This unit looks at health, wellbeing and illness as multidimensional, dynamic and subject to different interpretations and contexts. Students begin to explore health and wellbeing as a global concept and to take a broader approach to inquiry. As they consider the benefits of optimal health and wellbeing and its importance as an individual and a collective resource, their thinking extends to health as a universal right. Students look at the fundamental conditions required for health improvement, as stated by the World Health Organization (WHO). They use this knowledge as background to their analysis and evaluation of variations in the health status of Australians. Area of Study 2 focuses on health promotion and improvements in population health over time. Students look at various public health approaches and the interdependence of different models as they research health improvements and evaluate successful programs. While the emphasis is on the Australian health system, the progression of change in public health approaches should be seen within a global context.

Areas of Study

1   Understanding health and wellbeing

This area of study explores health and wellbeing and illness as complex, dynamic and subjective concepts.

While the major focus is on the health of Australians, this area of study also emphasises that Australia's health is not isolated from the rest of the world. Students inquire into the WHO's prerequisites for health and wellbeing and reflect on both the universality of public health goals and the increasing influence of global conditions on Australians. Students develop their understanding of the indicators used to measure and evaluate health status, and the factors that contribute to variations between population groups in Australia.

Outcome 1: On completion of this unit the student should be able to explain the complex, dynamic and global nature of health and wellbeing, interpret and apply Australia's health status data and analyse variations in health status.

2   Promoting health and wellbeing

This area of study looks at different approaches to public health over time, with an emphasis on changes and strategies that have succeeded in improving health and wellbeing. Students examine the progression of public health in Australia since 1900, noting global changes and influences such as the Ottawa Charter for Health Promotion and the general transition of focus from the health and wellbeing of individuals to that of populations. Students investigate the Australian health system and its role in promoting health and wellbeing. They conduct a detailed study on a successful health promotion campaign or program, and inquire into priorities for health improvements in Australia.

Outcome 2: On completion of this unit the student should be able to discuss and analyse approaches to health and health promotion, and describe Australia's health system and the different roles of government and non-government organisations in promoting health.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Case study analysis
- Data analysis
- Media analysis
- Reports – written and oral
- Structured questions

Health and Human Development

Unit 4: Health and human development in global context

This unit examines health and wellbeing, and human development in a global context. Students use data to investigate health status and burden of disease in different countries, exploring factors that contribute to health inequalities between and within countries, including the physical, social and economic conditions in which people live. Students build their understanding of health in a global context through examining changes in burden of disease over time and studying the key concepts of sustainability and human development. They consider the health implications of increased globalisation and worldwide trends relating to climate change, digital technologies, world trade and the mass movement of people. Area of Study 2 looks at global action to improve health and wellbeing and human development, focusing on the United Nations' (UN's) Sustainable Development Goals (SDGs) and the work of the World Health Organization (WHO). Students also investigate the role of non-government organisations and Australia's overseas aid program. Students evaluate the effectiveness of health initiatives and programs in a global context and reflect on their capacity to take action.

Areas of Study

1   Health and wellbeing in a global context

This area of study looks at similarities and differences in major burdens of disease in low-, middle- and high-income countries, including Australia. Students investigate a range of factors that contribute to health inequalities and study the concepts of sustainability, human development and the Human Development Index to further their understanding of health in a global context. Students consider the global reach of product marketing and inquire into the effects of particular global trends on health and wellbeing.

Outcome 1: *On completion of this unit the student should be able to analyse similarities and differences in health status and burden of disease globally and the factors that contribute to differences in health and wellbeing.*

2   Health and the Sustainable Development Goals

This area of study looks at action for promoting health globally. It looks at the rationale, objectives and interdependencies of the UN's SDGs, focusing on their promotion of health and wellbeing and human development. Students investigate the priorities and work of the WHO and evaluate Australia's aid program and the role of non-government organisations, selecting one aid program for detailed research and analysis. They reflect on meaningful and achievable individual actions that could contribute to the work of national and international organisations that promote health and wellbeing.

Outcome 2: *On completion of this unit the student should be able to analyse relationships between the SDGs and their role in the promotion of health and human development, and evaluate the effectiveness of global aid programs.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Case study analysis
- Data analysis
- Reports – written and oral
- Structured questions
- Media analysis

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

History – Modern History

Unit 1: Change and Conflict

In this unit students investigate the nature of social, political, economic and cultural change in the later part of the 19th century and the first half of the 20th century. Modern History provides students with an opportunity to explore the significant events, ideas, individuals and movements that shaped the social, political, economic and technological conditions and developments that have defined the modern world.

World War One was a significant turning point in modern history. It represented a complete departure from the past and heralded changes that were to have significant consequences for the rest of the twentieth century. The post-war treaties ushered in a period where the world was, to a large degree, reshaped with new borders, movements, ideologies and power structures and led to the creation of many new nation states. These changes had many unintended consequences that would lay the foundations for future conflict and instability in Europe, the Americas, Asia, Africa and the Middle East. Economic instability caused by the Great Depression contributed to great social hardship as well as to the development of new political movements. The period after World War One, in the contrasting decades of the 1920s and 1930s, was characterised by significant social, political, economic, cultural and technological change.

Areas of Study

1 Ideology and conflict

In this area of study students focus on the events, ideologies, individuals and movements of the period that led to the end of empires and the emergence of new nation states before and after World War One; the consequences of World War One; the emergence of conflict; and the causes of World War Two. They investigate the impact of the treaties which ended the Great War and which redrew the maps of Europe and its colonies, breaking up the former empires of the defeated nations. As a result of the post-World War One treaties and despite the establishment of the League of Nations, the world became increasingly hostile and unstable. Widespread economic instability, failure of diplomacy, growing militarism and territorial aggression in Europe, along with totalitarianism, combined in 1939 to draw the world into a second major conflict. Students will focus on Germany during the inter-war period.

Outcome 1: On completion of this unit the student should be able to explain how significant events, ideologies and individuals contributed to political and economic changes in the first half of the 20th century, and analyse how these contributed to the causes of World War Two.

2 Social and cultural change

In this area of study students focus on the social life and cultural expression in the late nineteenth century and the first half of the twentieth century, and their relation to the technological, political and economic changes of the period. Students explore particular forms of cultural expression from the period. The creative arts both reflected and challenged social and political life and change in this period. Mass entertainment and information by means of radio and film became widespread. Students will focus on the social life and cultural expression of Germany and the USA during the inter-war period.

Outcome 2: On completion of this unit the student should be able to explain patterns of social and cultural change in everyday life in the first half of the twentieth century, and analyse the conditions which influenced these changes.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- Historical inquiry
- Essay
- Evaluation of historical sources
- Short-answer questions
- Extended responses
- Unit exam

History – Modern History

Unit 2: The changing world order

In this unit students investigate the nature and impact of the Cold War and challenges and changes to social, political and economic structures and systems of power in the second half of the twentieth century and the first decade of the twenty-first century.

The establishment of the United Nations (UN) in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948 was the first global expression of human rights. However, despite internationalist moves, the second half of the twentieth century was dominated by the Cold War, competing ideologies of democracy and communism and proxy wars. By 1989 the USSR began to collapse. Beginning with Poland, Eastern European communist dictatorships fell one by one. The fall of the Berlin Wall was a significant turning point in modern history. The period also saw continuities in and challenges and changes to the established social, political and economic order in many countries. The beginning of the twenty-first century heralded both a changing world order and further advancements in technology and social mobility on a global scale. However, terrorism remained a major threat, influencing politics, social dynamics and the migration of people across the world.

Areas of Study

1   Causes and consequences of the cold war

In this area of study students focus on the causes and consequences of the Cold War; the competing ideologies that underpinned events, the consequences on people, groups and nations, and the causes of the end of the Cold War and the collapse of the USSR. Students investigate the causes of the Cold War in the decades that followed World War Two. They analyse the significant contribution of events, ideologies and individuals, and the consequences for nations and people in the period 1945–1991. While the USA and the USSR never engaged in direct armed conflict, they opposed each other in a range of international conflicts and proxy wars. Students consider the reasons for the end of this long-running period of ideological conflict and the collapse of the USSR in 1991, as well as exploring the legacy of communism and/or socialism in the post-Soviet era and the emergence of democracy in new nations.

Outcome 1: *On completion of this unit the student should be able to explain the causes of the Cold War and analyse its consequences on nations and people.*

2   Challenge and change

In this area of study students focus on the ways in which traditional ideas, values and political systems were challenged and changed by individuals and groups in a range of contexts during the second half of the twentieth century and first decade of the twenty-first century. Students also consider the extent to which ideas, values and political systems remained the same and/or change was resisted. Students explore the causes of significant political and social events and movements, and their consequences for nations and people. While the Cold War dominated the second half of the twentieth century, social and political challenges, continuities and changes occurred within and between nations based on religion, nationalism, race, gender, human rights and regional conflicts. Students will focus on the Popular Movements within Australia.

Outcome 2: *On completion of this unit the student should be able to explain the challenges to social, political and/or economic structures of power and evaluate the extent to which continuity and change occurred.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:
- Historical inquiry
- Essay
- Evaluation of historical sources
- Short-answer questions
- Extended responses
- Unit exam.

History – Empires

Unit 1 and Unit 2

In Unit 1 and 2 Empires, students investigate the foundations and features of empires and the significant global changes they brought to the wider world in the early modern period. Empires at their core were expansionist, dominating trade and political influence in their regional or global contexts.

By the 15th century, international trade was dominated by the Republic of Venice, the Ming Dynasty in China and the Byzantine Empire. Between them they controlled key trading hubs along the Silk Road and Mediterranean Sea, in cities such as Constantinople, Venice and Beijing. Emerging European powers Portugal, Spain, France, Britain and the Netherlands circumvented the power of these established empires, gaining access to goods through alternative routes. By harnessing new knowledge and technologies, their voyages of exploration into the Asia-Pacific, the Americas and Africa challenged the hegemony of power of existing empires beyond the Mediterranean world.

Mindsets also changed. Emergent new ideas of the Renaissance brought forth innovative theories of the Scientific Revolution, the reforms of Protestant Reformation and the Counter-Reformation and, later, the Enlightenment. New economic structures of capitalism and mercantilism and the political ideas of absolute authority enabled European empires to entrench and impose their power on their colonial subjects. Consequently, new trade networks such as the 'Columbian Exchange' increased the prevalence and reliance on the slave trade and the demand for resources. Europe and Asia profited in their monopolies at the expense of indigenous cultures and environmental sustainability.

Imperial exploitation of colonial outposts and occupied territories drastically affected the indigenous peoples and the colonial societies. The local and international rivalries that ensued had an impact on the management and defence of empires. Wars and conflicts escalated as the quest for territorial power and resources intensified.

Two empires to be studied, one empire for Unit 1 and one empire for Unit 2 from the following:

- Ottoman Empire (1299–1699)
- Venetian Empire (1300–1797)
- Ming Dynasty (1368–1644)
- Portuguese Empire (1415–1822)
- Spanish Empire (1492–1713)
- Mughal Empire (1526–1758)
- Russian Empire (1552–1894)
- Dutch Empire (1543–1795)
- British Empire (1583–1788)
- French Empire (1605–1774)
- Qing Dynasty (1644- 1911)

Areas of Study

1 The rise of empires

In this area of study students focus on the features of empires and what contributed to their rise. They analyse how the social, political, economic, cultural, religious, environmental and technological features and conditions shaped an empire's quest for expansion.

Outcome 1: On completion of this unit the student should be able to explain the significant features of an empire and analyse its rise and expansion.

2 Encounters, challenges and change

In this area of study students focus on the challenges and changes facing the empire in the age of imperialism. Students explain how and why new colonies and new markets were established, and describe the empire's global power and why their influence prospered. They analyse the empire's social, political, economic and cultural structures of power and evaluate the consequences of empire expansion, especially for indigenous peoples.

Outcome 2: On completion of this unit the student should analyse the challenges and changes faced by the empire and evaluate the consequences of its imperial encounters in new territories and colonies, and on Indigenous peoples.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A historical inquiry
- An essay
- Evaluation of historical sources
- Short-answer questions
- Extended responses
- Unit exam

History – Australian History

Unit 3

In Units 3 and 4 Australian History, students develop their understanding of the foundational and transformative ideas, perspectives and events in Australia's history and the complexity of continuity and change in the nation's story.

The study of Australian history is considered both within a national and a global context, particularly Aboriginal and Torres Strait Islander peoples and culture, a colonial settler society within the British Empire and as part of the Asia-Pacific region. Students come to understand that the history of Australia is contested and that the past continues to contribute to ongoing interpretations, debates and tensions in Australian society.

Areas of Study

1   From custodianship to the Anthropocene (60 000 BCE-1901)

Students investigate the historical role of humans in shaping the Australian landscape and ways in which the environment has influenced human activity. Aboriginal and Torres Strait Islander peoples managed and actively changed the land in response to the environmental features and conditions of the Australian continent. Their perspectives towards land and sea are contrasted with colonisers and settlers whose different beliefs about and uses of land also changed the environment.

Outcome 1: On completion of this unit the students should be able to analyse the nature of change in the Port Phillip District / Victoria in the period 1834–1860.

2   War and upheaval (1909-1950)

Students investigate the debates and perspectives about Australia's participation in World War One and World War Two. Students analyse the ways in which social, political and economic cohesion of the nation was influenced by the impacts of these conflicts, including different perspectives about participation in war and conflict, enlistment and conscription and the ways that different groups experienced the war.

Outcome 2: On completion of this unit the students should be able to analyse the visions and actions that shaped the new nation from 1890 to 1920, and the changes and continuities to these visions that resulted from participation in World War I.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A historical inquiry
- An evaluation of historical responses
- Extended responses
- An essay

History – Australian History

Unit 4

In Units 3 and 4 Australian History, students develop their understanding of the foundational and transformative ideas, perspectives and events in Australia's history and the complexity of continuity and change in the nation's story.

The study of Australian history is considered both within a national and a global context, particularly Aboriginal and Torres Strait Islander peoples and culture, a colonial settler society within the British Empire and as part of the Asia-Pacific region. Students come to understand that the history of Australia is contested and that the past continues to contribute to ongoing interpretations, debates and tensions in Australian society.

Areas of study

1   From custodianship to the Anthropocene (60 000 BCE – 1901)

Students investigate the way in which Australian's perspectives of the environment changed and/or remained the same after 1950. They consider the changing nature and economic importance of rural and resource industries during this time. They explore the perspectives of conservation movements and political parties which emerged to raise awareness and/or contest land use and environmental issues. Students analyse the role and voice of Indigenous peoples both in Australia and in other nations in the debates about environmental protection, and examine how movements challenged the extent to which human actions and responses to environmental issues changed.

Outcome 1: On completion of this unit the students should be able to analyse the social, economic and political consequences of a crisis on the nation.

2   War and upheaval (1950 – 1992)

Students investigate Australia's involvement and reasons for participation in post-World War Two conflicts and the subsequent debates arising from these conflicts. The changing reasons for Australia's participation in conflicts was influenced by shifting alliances, fears of Communism, desires for regional security, concerns regarding terrorism and the evolving nature of enlistment and service in the military forces. Students consider the impacts of these conflicts on groups in Australian society and the differing ways in which Australians responded.

Outcome 2: On completion of this unit the students should be able to analyse and evaluate two key social, economic and political changes in late twentieth century Australia.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A historical inquiry
- An analysis of primary resources
- An analysis of historical interpretation
- An essay.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

History – Revolutions

Unit 3 and Unit 4

In Units 3 and 4 Revolutions students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point 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. Revolution is a dramatically accelerated process whereby the new order attempts to create political and social change and transformation based on a new ideology.

Change in a post-revolutionary society is not guaranteed or inevitable. Post-revolutionary regimes are often threatened internally by civil war and externally by foreign threats. These challenges can result in a compromise of revolutionary ideals and extreme measures of violence, oppression and terror.

In these units, students construct an argument about the past using historical sources (primary sources and historical interpretations) as evidence to analyse the complexity and multiplicity of the causes and consequences of revolution, and to evaluate the extent to which the revolution brought change to the lives of people. Students analyse the different perspectives and experiences of people who lived through dramatic revolutionary moments, and how society changed and/or remained the same. Students use historical interpretations to evaluate the causes and consequences of revolution and the extent of change instigated by the new regime.

Two revolutions will be studied:
- Unit 3: The French Revolution
- Unit 4: The Russian Revolution

For the two selected revolutions, both areas of study must be undertaken. Students are expected to demonstrate a progression from Unit 3 to Unit 4 in historical understanding and skills.

Areas of study (Unit 3 and Unit 4)

1   Causes of revolution
Unit 3 Timeframe: The French Revolution (1774 – 4 August 1789)

Unit 4 Timeframe: The Russian Revolution (1896 – 26 October 1917)

- What were the significant causes of revolution?
- How the actions of popular movements and certain individuals contributed to triggering a revolution?
- To what extent did social tensions and ideological conflicts contribute to the outbreak of revolution?

In this area of study, students analyse the long-term causes and short-term triggers of revolution. They evaluate how revolutionary outbreaks are caused by the interplay of significant events, ideas, individuals and popular movements and assess how these were directly or indirectly influenced by the social, political, economic and cultural conditions. Students analyse significant events and evaluate how particular conditions profoundly influenced and contributed to the outbreak of revolution. They consider triggers such as, in America, the Boston Tea Party or, in France, the calling of the Estates-General. Students evaluate historical interpretations about the causes of revolution and explain why differing emphases are placed on the role of events, ideas, individuals and popular movements.

Outcome 1: On completion of this unit the students should be able to analyse the causes of revolution, and evaluate the contribution of significant ideas, events, individuals and popular movements.

History – Revolutions

Unit 3 and Unit 4 (continued)

2 Consequences of revolution

Unit 3 Timeframe: The French Revolution (5 August 1789 – 1795)

Unit 4 Timeframe: The Russian Revolution (26 October 1917 – 1927)

- What were the consequences of revolution?
- How did the new regime consolidate its power?
- What were the experiences of those who lived through the revolution?
- To what extent was society changed and revolutionary ideas achieved or compromised?

In this area of study students analyse the consequences of the revolution and evaluate the extent to which it changed society. The success of the revolution was not inevitable; therefore, students analyse the significant challenges that confronted the new regime after the initial outbreak of revolution. Students evaluate the success of the new regime's responses to these challenges and the extent to which the consequences of revolution resulted in dramatic and wide reaching social, political, economic and cultural change, progress or decline. In analysing the past, students engage with the historical perspectives as well as the experiences of those whose conditions of everyday life were affected by the revolution, such as the peasants and workers in Russia and the Red Guards in China. Students evaluate historical interpretations about the success of the revolution, the new regime's consolidation of power, their compromise of revolutionary ideology and the degree of change brought to the society.

Outcome 2: On completion of this unit the students should be able to analyse the consequences of revolution and evaluate the extent of change brought to society.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks include:

- A historical inquiry
- An analysis of primary resources
- An analysis of historical interpretation
- An essay

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Languages

Units 1 – 4: Italian / Japanese / French

The areas of study for Languages comprise themes and topics, text types, kinds of writing, vocabulary and grammar. They are common to all four units of the LOTE study, and are designed to be drawn upon in an integrated way, as appropriate to the linguistic needs of the student, and the outcomes for the unit.

The themes and topics are the vehicle through which the student will demonstrate achievement of the outcomes, in the sense that they form the subject of the activities and tasks that the student undertakes.

The text types, kinds of writing, vocabulary and grammar are linked, both to each other, and to the themes and topics. Together, as common areas of study, they add a further layer of definition to the knowledge and skills required for successful achievement of the outcomes.

The common areas of study provide the opportunity for the student to build upon what is familiar, as well as develop knowledge and skills in new and more challenging areas.

Unit 1 & 2 Prerequisites

This course is intended for students who have studied **Italian / Japanese / French** for a period of four years or more and have ideally received a grade of 60% or greater at the end of Year 10.

Unit 3 & 4 Prerequisites

This course is intended for students who have studied **Italian / Japanese / French** for a period of five years or more and have ideally received a grade of 60% or greater at the end of Year 11.

Areas of Study

The areas of study for **Italian / Japanese / French** comprise themes and topics, grammar, text types, vocabulary and kinds of writing.

There are three prescribed themes:
- The individual
- The **Italian / Japanese / French** – speaking communities
- The world around us

The themes have a number of prescribed topics and suggested sub-topics. The topics provide particular perspectives for each theme and the sub-topics expand on the topics and include:

- Personal identity and lifestyles
- Relationships
- Cultural perspectives
- Aspirations, education and careers
- The cultural heritage
- Living in/visiting a community
- Significant people

- Historical perspectives
- The language speaking communities
- Historical/contemporary people and events
- The influence of technology
- Communication and media
- Technology and Science
- Global and contemporary society

Assessment (Unit 3 and Unit 4)

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination • An Oral Examination (Approximately 15 minutes) • A Written Examination (2 hours 15 minutes)	50%

Please Note:

Students must satisfactorily complete Units 1 & 2 Languages before undertaking Units 3 & 4.

Languages

Unit 1: Italian / Japanese / French

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

Cultural products or practices will be drawn from a diverse range of texts, activities and creations. These may include the following: stories, poems, plays, novels, songs, films, photographs, artworks, architecture, technology, food, clothing, sports and festivals. Students apply acquired knowledge of culture and language use in specific contexts and for specific audiences.

Students reflect on the interplay between language and culture, and its impact on the individual's language use in specific contexts and for specific audiences.

Areas of Study

1   Interpersonal communication

Students develop their skills and knowledge to establish and maintain an informal, personal, spoken interaction in the studied language on a selected subtopic. Students consider language as a tool for communication and focus on language important for effective participation in spoken interaction. They develop their understanding that the content and the direction of an exchange are influenced by the participants and the purpose of the interaction, and consider the influence of cultural perspectives on meaning and mutual understanding.

Outcome 1: On completion of this unit the student should be able to exchange meaning in a spoken interaction in the studied language.

2   Interpretive communication

In this area of study students locate and use information from two texts in the selected language, chosen from a written, spoken or audiovisual format. They develop skills and knowledge to read, listen to or view texts in the studied language effectively, to summarise content and to combine information from the texts in written responses in the studied language and English. The subtopic selected for the texts will be drawn from the prescribed themes and topics and should provide an opportunity for students to learn about the culture/s of the studied language-speaking communities.

In preparation for understanding and interpreting information on the selected subtopic, students consider relevant content, language and cultural information. They focus on language important for presenting information in written form, such as answering questions or writing for a specific purpose and audience. Students identify and clarify aspects of language and culture in the texts.

Outcome 2: On completion of this unit the student should be able to interpret information from two texts on the same subtopic presented in the studied language, and respond in writing in the studied language and in English.

3   Presentational communication

Students present content related to the selected subtopic in the studied language in written form, which may include supporting visual elements. Students develop a presentation that recounts, narrates, entertains, retells or interprets information, concepts and ideas for a specific audience. The presentation will feature cultural products or practices from studied language-speaking communities which can be drawn from a diverse range of texts, activities and creations.

Outcome 3: On completion of this unit the student should be able to present information, concepts and ideas in writing in the studied language on the selected subtopic and for a specific audience and purpose.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Languages

Unit 2: Italian / Japanese / French

In this unit, students develop an understanding of aspects of language and culture through the study of three or more topics. Students analyse visual, spoken and written texts. They access and share useful information on the topics and subtopics through the studied language and consolidate and extend vocabulary, grammar knowledge and language skills.

Cultural products or practices can be used to demonstrate how culture and perspectives may vary between communities. Students reflect on the interplay between language and culture, and its impact on meaning, understanding and the individual's language use in specific contexts and for specific audiences.

Areas of Study

1   Interpersonal communication

In this area of study students participate in a written exchange in the studied language. They develop skills and knowledge that enable them to read, listen to and view texts in the studied language and to develop a suitable response in the studied language. The stimulus material may be in spoken or written form, such as a letter, telephone message, video call or email, and may be accompanied by visual information, such as maps, advertisements, menus, photographs, film clips or diagrams.

In preparation for engaging with the subtopic, students consider relevant content, language and cultural information. They focus on language that is important for writing for a specific purpose and audience. Students identify and clarify aspects of language in the exchange and account for the influence of cultural perspectives on meaning and mutual understanding.

Outcome 1: On completion of this unit the student should be able to respond in writing in the studied language to spoken, written or visual texts presented in the studied language.

2   Interpretive communication

In this area of study students extract information from texts provided in the studied language and respond to the texts in writing using elements of this information. They develop skills and knowledge to read, listen to or view texts in the studied language and to use information in a new context. The topic selected for the texts will be drawn from the prescribed themes, with students developing their understanding of the culture/s of the studied language-speaking communities.

In preparation for understanding and interpreting information on the topic, students consider relevant content, language and cultural information. They focus on language that is important for identifying and synthesising information presented in the studied language and for recounting information in the studied language. They recognise and account for other perspectives in their interpretation of information, ideas and opinions.

Outcome 2: On completion of this unit the student should be able to analyse and use information from written, spoken or visual texts to produce an extended written response in the studied language.

3   Presentational communication

In this area of study students research cultural products or practices that demonstrate an aspect of the culture studied. They develop an oral presentation in the studied language on an aspect of the selected subtopic of interest to them. Students consider relevant content, language and cultural information that can be used in the development of their oral presentation. They focus on skills and knowledge that enable them to read, listen to and view texts in the studied language and to speak about cultural connections and comparisons.

Outcome 3: On completion of this unit the student should be able to explain information, ideas and concepts orally in the studied language to a specific audience about an aspect of culture within communities where the studied language is spoken.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Languages

Unit 3: Italian / Japanese / French

In this unit students investigate the way the studied language speakers interpret and express ideas, and negotiate and persuade in the studied language through the study of three or more subtopics from the prescribed themes and topics. Students interpret information, inform others, and reflect upon and develop persuasive arguments. They access and share useful information on the subtopics through the studied language, and consolidate and extend vocabulary and grammar knowledge and language skills.

Students consider the influence of language and culture in shaping meaning and reflect on the practices, products and perspectives of the cultures of the studied language-speaking communities. They reflect on how knowledge of the studied language and the language-speaking communities can be applied in a range of contexts and endeavours, such as further study, travel, business or community involvement.

Areas of Study

1   Interpersonal communication

In this area of study students develop skills and knowledge to resolve a personal issue by negotiating a mutually agreeable outcome in a spoken exchange in the studied language on a selected subtopic. Students research relevant content, language and cultural information, in particular that associated with acknowledging other speakers' points of view, and negotiating and persuading in culturally appropriate ways. They consider the interplay between cultural perspectives and mutual understanding, and focus on language important for effective participation in spoken interactions in the studied language. Students develop their understanding that language choices influence outcomes and impressions created in the exchange.

Outcome 1: On completion of this unit the student should be able to participate in a spoken exchange in the studied language to resolve a personal issue.

2   Interpretive communication

In this area of study students extract information from three or more texts relating to the selected subtopic, and create written responses to specific questions or instructions in the studied language. Students synthesise information from written, spoken and visual texts. Students consider relevant content, language and cultural information from three or more texts to identify and interpret key ideas and detail on the selected subtopic. Texts could include extracts, articles, blogs, webpages, postcards, stories, podcasts, songs, plays, news items, films, photographs, maps and other written, spoken or viewed texts. Students connect and compare ideas and identify different points of view or perspectives in each of the texts. Students respond to the texts in writing in the studied language. They consider the influence of language, culture, social norms and ways of thinking in shaping meaning and the sequencing of ideas in the response.

Outcome 2: On completion of this unit the student should be able to interpret information from texts and write responses in the studied language.

3   Presentational communication

In this area of study students create an extended original piece of personal, informative or imaginative writing in the studied language to express ideas, thoughts or responses on an aspect of the selected subtopic. Students analyse and reflect on content related to the selected subtopic to assist in identifying aspects suited to reflection, informing or storytelling. They may use cultural products or practices as stimulus material for their writing. Students consider the language and features of the types of text they encounter to ensure that their writing includes culturally appropriate content.

Outcome 3: On completion of this unit the student should be able to express ideas in a personal, informative or imaginative piece of writing in the studied language.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Languages

Unit 4: Italian / Japanese / French

In this unit students investigate aspects of culture through the study of two or more subtopics from the prescribed themes and topics. Students build on their knowledge of the studied language-speaking communities, considering cultural perspectives and language and explaining personal observations.

Students identify and reflect on cultural products or practices that provide insights into the studied language-speaking communities. Students reflect on the ways culture, place and time influence values, attitudes and behaviours. They consider how knowledge of more than one culture can influence the ways individuals relate to each other and function in the world.

Areas of Study

1 Interpersonal communication

In this area of study students research and present information on a cultural product or practice from a language speaking community. Students develop knowledge and skills to share observations and consider how the product or practice may reflect a specific cultural perspective or behaviour.

Through the investigation of a cultural product or practice, students research specialised content, language and cultural information related to the selected subtopic. Students use knowledge of the subtopic to explain differences and similarities between cultural contexts, such as the present and the past or between the studied language-speaking communities in different locations around the world. They develop language important for effective participation in spoken interaction in the language, including deep knowledge of the subtopic, to present information, ideas and opinions about the cultural product or practice and to participate in an extended discussion.

Outcome 1: On completion of this unit the student should be able to share information, ideas and opinions in a spoken exchange in the studied language.

2 Interpretive communication

In this area of study students analyse and present in writing information extracted from written, spoken and viewed texts in the studied language on a selected subtopic. They respond to the texts in an extended piece of writing in the studied language that requires a different text type to the stimulus material. Students identify and analyse key ideas and make comparisons between the details, ideas and points of view expressed in each of the texts.

Outcome 2: On completion of this unit the student should be able to analyse information from written, spoken and viewed texts for use in a written response in the studied language.

3 Presentational communication

In this area of study students present information, concepts and ideas in an extended written response to persuade an audience of a point of view or evaluate existing ideas and opinions about an aspect of the selected subtopic. Students investigate relevant content, language and cultural information to assist in persuading others of a particular position or evaluating existing positions and opinions on an issue related to the subtopic. They develop knowledge and understanding of the issue, such as the benefits of learning the studied language, the ongoing effects of an historical event, environmental concerns, youth issues in contemporary society or an aspect of the literary or artistic heritage of the language-speaking communities. Students create an original written text in the studied language on an aspect of the subtopic for a specified audience and text type.

Outcome 3: On completion of this unit the student should be able to present information, concepts and ideas in evaluative or persuasive writing on an issue in the studied language.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Legal Studies

Unit 1: The presumption of innocence

Laws, including criminal law, aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order. 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. 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.

Areas of Study

1   Legal foundations

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.

Outcome 1: *On completion of this unit the student should be able to describe the main sources and types of law and evaluate the effectiveness of laws.*

2   Proving guilt

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.

Outcome 2: *On completion of this unit the student should be able to explain the purposes and key concepts of criminal law and use legal reasoning to argue the criminal culpability of an accused based on actual and/or hypothetical scenarios.*

3   Sanctions

The criminal justice system determines the guilt of an accused and imposes sanctions on offenders. 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.

Outcome 3: *On completion of this unit the student should be able to explain the key concepts in the determination of a criminal case, discuss the principles of justice in relation to experiences of the criminal justice system, and discuss the ability of sanction s to achieve their purposes.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- folio of exercises
- structured questions
- classroom presentation
- role-play
- debate
- report

Legal Studies

Unit 2: Wrongs and rights

Civil law aims to protect the rights of individuals. When rights are infringed, a dispute may arise requiring resolution, and remedies may be awarded. In this unit, students investigate key concepts of civil law and apply these to actual and/or hypothetical scenarios to determine whether a party is liable in a civil dispute. Students explore the methods and institutions that may be used to resolve a civil dispute and provide remedies. 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.

Areas of Study

1   Civil liability

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.

Outcome 1: *On completion of this unit the student should be able to explain the purposes and key concepts of civil law and apply legal reasoning to argue the liability of a party in civil law based on actual and/or hypothetical scenarios.*

2   Remedies

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.

Outcome 2: *On completion of this unit the student should be able to explain the key concepts in the resolution of a civil dispute, discuss the principles of justice in relation to experiences of the civil justice system, and discuss the ability of remedies to achieve their purposes.*

3   Human rights

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. 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.

Outcome 3: *On completion of this unit the student should be able to explain one contemporary human rights issue in Australia and evaluate the ways in which rights are protected in Australia.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- folio of exercises
- structured questions
- classroom presentation
- role-play
- debate
- report

Legal Studies

Unit 3: Rights and justice

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

Students explore topics such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

Areas of Study

1   The Victorian criminal justice system

Students explore the criminal justice system, key personnel, and the use of plea negotiations to determine a criminal case. Students investigate the rights of the accused and of victims, and explore the purposes and types of sanctions and sentencing considerations. They consider the impact of time, costs and cultural differences on the ability of the criminal justice system to achieve the principles of justice. Students synthesise and apply legal principles and information relevant to the criminal justice system to actual and/or hypothetical scenarios.

Outcome 1: *On completion of this unit, students 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.*

2   The Victorian civil justice system

One of the aims of the Victorian civil justice system is to restore a wronged party to the position they were originally in before a breach of civil law occurred. There are a range of institutions in Victoria that aim to help parties resolve a civil dispute, including courts (the Magistrates' Court, County Court and Supreme Court), Consumer Affairs Victoria, and the Victorian Civil and Administrative Tribunal. In this area of study, students consider the factors relevant to commencing a civil claim, examine the institutions and methods used to resolve a civil dispute and explore the purposes and types of remedies. Students consider the impact of time and costs on the ability of the civil justice system to achieve the principles of justice. Students synthesise and apply legal principles and information relevant to the civil justice system to actual and/or hypothetical scenarios.

Outcome 2: *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

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks may include:

- A case study
- Structured questions
- Essays
- Reports and folios

Legal Studies

Unit 4: The people, the law and reform

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

Areas of Study

1   The people and the law makers

Parliament is the supreme law-making body, and courts have a complementary role to parliament in making laws. Courts can make laws through the doctrine of precedent and through statutory interpretation when determining cases. Students examine the ways in which the Australian Constitution acts as a check on parliament in law-making, and factors that affect the ability of parliament and courts to make law. They explore the relationship between parliament and courts in law-making and consider the capacity of both institutions to make law.

Outcome 1: 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.

2   The people and reform

Individuals and groups can actively participate to influence change to laws, and law reform bodies (including the Victorian Law Reform Commission, parliamentary committees, and Royal Commissions) can investigate and make recommendations for change. In this area of study, students investigate the need for law reform and the means by which individuals and groups can influence change in the law. Students draw on examples of individuals, groups and the media influencing law reform, as well as examples from the past four years of inquiries of law reform bodies. Students examine the relationship between the Australian people and the Australian Constitution, the reasons for and processes of constitutional reform, the successful 1967 referendum and calls for future constitutional reform, such as that articulated by the 2017 Uluru Statement from the Heart.

Outcome 2: 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

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A case study
- Structured questions
- Essays
- Reports and folios

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Literature

Unit 1

In this unit, students focus on the ways in which the interaction between text and reader creates meaning. Students' analysis of the features and conventions of texts help them develop increasingly discriminating responses to a range of literary forms and styles. Students respond critically, creatively and reflectively to the ideas and concerns of texts and gain insights into a variety of literary movements and genres. They develop familiarity with key terms, concepts and practices that equip them for further studies in literature. They develop an awareness of how the views and values that readers hold may influence the reading of a text.

Areas of Study

1   Reading practices

In this area of study students consider how language, structure and stylistic choices are used in different literary forms and types of text. They consider both print and non-print texts, reflecting on the contribution of form and style to meaning. Students reflect on the degree to which points of view, experiences and contexts shape their own and others' interpretations of text.

Students closely examine the literary forms, features and language of texts. They begin to identify and explore textual details, including language and features, to develop a close analysis response to a text.

Outcome 1: *On completion of this unit the student should be able to respond to a range of texts through close analysis. To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.*

2   Exploration of literary movements and genres

In this area of study students explore the concerns, ideas, style and conventions common to a distinctive type of literature seen in literary movements or genres. Examples of these groupings include literary movements and/or genres such as modernism, epic, tragedy and magic realism, as well as more popular, or mainstream, genres and subgenres such as crime, romance and science fiction. Students explore texts from the selected movement or genre, identifying and examining attributes, patterns and similarities that locate each text within that grouping. Students engage with the ideas and concerns shared by the texts through language, settings, narrative structures and characterisation, and they experiment with the assumptions and representations embedded in the texts.

Students must study at least one complete text alongside multiple samples of other texts from the selected movement or genre.

Outcome 2: *On completion of this unit the student should be able to explore conventions common to a selected movement or genre, and engage with the ideas, concerns and representations from at least one complete text alongside multiple samples of other texts considered characteristic of the selected movement or genre.*

To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 2.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Please Note:

Students must satisfactorily complete Units 1 & 2 Literature before undertaking Units 3 & 4.

Literature

Unit 2

In this unit, students explore the ways literary texts connect with each other and with the world. They deepen their examination of the ways their own culture and the cultures represented in texts can influence their interpretations and shape different meanings. For Areas of Study One, students specifically focus on the voices of Aboriginal and Torres Straight Islanders in their analysis of texts, considering the relationships between authors, audiences and contexts. Ideas, language and structures of different texts from past and present eras are analysed in this unit. Students engage in a close reading of texts and create analytical responses that are evidence-based. By experimenting with textual structures and language features, students understand how imaginative texts are informed by close analysis.

Areas of Study

1   Voices of Country

In this area of study students explore the voices, perspectives and knowledge of Aboriginal and Torres Strait Islander authors and creators. They consider the interconnectedness of place, culture and identity through the experiences, texts and voices of Aboriginal and Torres Strait Islander peoples, including connections to Country, the impact of colonisation and its ongoing consequences, and issues of reconciliation and reclamation.

Students examine representations of culture and identity in Aboriginal and Torres Strait Islander peoples' texts and the ways in which these texts present voices and perspectives that explore and challenge assumptions and stereotypes arising from colonisation.

Outcome 1: *On completion of this unit the student should be able to explore and reflect on the voices, perspectives and knowledge in the texts of Aboriginal and Torres Strait Islander authors and creators. To achieve this outcome the student will draw on key knowledge and key skills outlined in Area of Study 1.*

2   The text in its context

In this area of study students focus on the text and its historical, social and cultural context. Students reflect on representations of a specific time period and/or culture within a text.

Students explore the text to understand its point of view and what it reflects or comments on. They identify the language and the representations in the text that reflect the specific time period and/or culture, its ideas and concepts. Students develop an understanding that contextual meaning is already implicitly or explicitly inscribed in a text and that textual details and structures can be scrutinised to illustrate its significance.

Outcome 2: *On completion of this unit the student should be able to analyse and respond to the representation of a specific time period and/or culture explored in a text and reflect or comment on the ideas and concerns of individuals and groups in that context.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Please Note:

Students must satisfactorily complete Units 1 & 2 Literature before undertaking Units 3 & 4.

Literature

Unit 3

In this unit, students consider how the form of a text affects its meaning and how meaning is affected when texts are adapted and transformed. They consider how perspectives of texts inform and influence adaptations. Students draw on this awareness to develop their own interpretations taking into consideration the historical, social and cultural context in which the text the written, taking into account their own views and values as a reader. Student also reflect on this initial interpretation having later been informed by a supplementary reading. Students are then required to explicitly state whether this endorses, challenges or in fact contests their initial response. Students develop critical and analytical responses to set texts.

Areas of Study

1   Adaptations and transformations

In this area of study, students focus on how the form of a text contributes to it's meaning. Students explore the form of a set text by constructing a close analysis of the text. They then reflect on the extent to which adapting the text to a different form, and often in a new or reimagined context, affects its meaning, comparing the original with the adaption. By exploring an adaption, students also consider how creators of adaptions may emphasise or minimize viewpoint, assumptions and ideas present in the original text.

Outcome 1: *On completion of this unit, students should be able to analyse aspects of a text, drawing on close analysis of textual detail, and then discuss the extent to which meaning changes when that text is adapted to a different form. To achieve this outcome, students will draw on key knowledge and key skills outlined in Area of Study 1.*

2   Developing interpretations

In this area of study, students explore the different ways we can read and understand a text by developing, considering and comparing interpretations of a set text. Students first develop their own interpretations of a set text, analysing how ideas, views and values are presented in a text, and the ways these are endorsed, challenged and/or marginalised through literary forms, features and language. Student interpretations should consider the historical, social and cultural context in which a text is written and set. Students also consider their own views and values as readers. Students then explore a supplementary reading that can enrich, challenge and/or contest the ideas and the views values and assumptions of the set text to further enhance the students' understanding. Informed by this supplementary reading, students develop a second interpretation of the same text reflecting an enhanced appreciation and understanding of the text. They then apply this understanding to key moments from the text, supporting their work with considered textual evidence.

Outcome 2: *On completion of this unit, students should be able to develop interpretations of a set text informed by the ideas, views and values of the set text and supplementary reading. To achieve this outcome, students will draw on key knowledge and key skills outlined in Area of Study 2.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Literature

Unit 4

In this unit, students focus on how the form of a text creates meaning, and how writers construct texts. They reflect critically on how authors create meaning and explore these strategies in the creation of their own creative pieces. Students scrutinize the language and style of texts and the views and values which underpin these texts. Students use these skills to develop a close of analysis of selected passages which reference the text as a whole.

Areas of Study

1   Creative Response to texts

In this area of study, students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as content and form change to construct their own creative transformations of texts. They learn how authors develop representations of people and places, and they develop and understanding of language, voice, form and structure. Students draw inferences from the original text and develop an understanding of the views and values explored. Students develop an understanding of the various ways in which authors craft texts. They reflect critically on the literary form, features and language of a text, and discuss their own responses as they relate to the text, including the purpose and content of their creations.

Outcome 1: On completion of this unit, students should be able to respond creatively toa a text and comment critically on both the original and the creative response. To achieve this outcome, students will draw on key knowledge and key skills outlined in Area of Study 1.

2   Close analysis of texts

In this area of study, students focus on a detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the way specific passages in a text contribute to their overall understanding of the whole text. Students consider literary forms, features and language, and the views and values of the text. They write expressively to develop close analysis, using detailed references to the text.

Outcome 2: On completion of this unit, students should be able to analyse literary forms, features and language to present a coherent view of a whole text. To achieve this outcome, students will draw on key knowledge and key skills outlined in Area of Study 2.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Mathematical Methods

Unit 1 & 2

Mathematical Methods designed for preparation for Mathematical Methods Units 3&4. This subject provides 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. Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algorithms, algebraic manipulation, equations, graphs and differentiation with and without the use of technology. The appropriate use of computer algebra system (CAS) technology to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the unit.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1 Functions, relations and graphs

This area of study covers graphical representation of functions of a single real variable and the study of key features of graphs of functions. The behaviour of these functions and relations will be explored in a variety of modelling contexts and theoretical investigations.

2 Algebra, number and structure

This area of study supports material in the 'Functions, relations and graphs', 'Calculus' and 'Probability and statistics' areas of study. The focus is on the algebra of polynomial functions, transformations of the plane, exponential functions, logarithmic functions and inverse functions.

3 Calculus

This area of study covers constant and average rates of change and an introduction to instantaneous rate of change of a function in familiar contexts. This will include exploring differentiation and anti-differentiation of polynomial functions by rule, and related applications, including the analysis of graphs.

4 Data analysis, probability and statistics

This area of study covers introductory probability theory, rules for computation of probabilities, introductory counting principles and techniques and their application to probability.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: On completion of this unit, the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.

Outcome 2: On completion of this unit, the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.

Outcome 3: On completion of this unit, the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:
- Mathematical investigation tasks
- Tests
- Modelling or problem-solving tasks
- Examinations

Please Note:

Students must satisfactorily complete Units 1&2 Mathematical Methods before undertaking Units 3&4.

Mathematical Methods

Unit 3 & 4

This study follows directly from Mathematical Methods Units 1&2 and will assume knowledge acquired in these units. It will extend the introductory study of simple elementary functions of single real variables, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. Students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructs, algorithms, algebraic manipulation, equations, graphs, differentiation, anti-differentiation and integration, with and without the use of technology, as applicable. The appropriate use of computer algebra system (CAS) to support and develop the teaching and learning of mathematics, and in related assessments, is to be incorporated throughout the course.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1   Functions, relations and graphs

This area of study covers transformations of the plane and the behaviour of some elementary functions of a single real variable. The behaviour of these functions and their graphs is to be explored in a variety of modelling contexts and theoretical investigations.

2   Algebra, number and structure

This area of study covers the algebra of functions, including composition of functions, inverse functions and the solution of equations. This study includes the identification of appropriate solution processes for solving equations, and systems of simultaneous equations, presented in various forms.

3   Calculus

This area of study covers graphical treatment of limits, continuity and differentiability of functions of a single real variable and differentiation, anti-differentiation and integration of these functions. This material is linked to applications in practical situations.

4   Data analysis, probability and statistics

This area of study covers discrete and continuous random variables. The focus is on understanding the notion of a random variable, related parameters, properties and application and interpretation in context for a given probability distribution.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: On completion of this unit, the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.

Outcome 2: On completion of this unit, the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.

Outcome 3: On completion of this unit, the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:
- Applications Tasks
- Modelling problem-solving tasks
- Examination

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	40%
Unit 3 & 4 Examination 1 – Technology Free Exam	20%
Unit 3 & 4 Examination 2	40%

Media

Unit 1: Media forms, representations and Australian stories

In this unit, students work in a range of media forms and develop and produce representations to demonstrate an understanding of the characteristics of each media form, and how they contribute to the communication of meaning.

Students develop an understanding of the features of Australian fictional and non-fictional narratives in different media forms.

Areas of Study

1   Media Representations: How do we see ourselves and our world in media products?

Students are introduced to the concept of audience. They consider different readings of media products and how meaning is suggested through the complex relationships between content creators and producers, media forms and audiences. They consider how audiences engage with the media to construct and negotiate understandings of the world and themselves through their participation in the consumption, reception, production, curation and distribution of media products.

Outcome 1: On completion of this unit the student should be able to explain the construction of media representations in different products, forms and contexts, including how audiences engage with, consume and read these representations.

2   Media Forms in Production: How can we manipulate codes and conventions to create representations?

Students evaluate how the characteristics of their selected media forms, which they design and produce, influence the representations and construction of the productions.

Outcome 2: On completion of this unit the student should be able to use the media production process to design, produce and evaluate media representations for specified audiences in a range of media forms.

3   Australian stories: How are Australian stories structured in fictional and non-fictional media narratives?

Students study a range of narratives in two or more media forms, exploring the context and features of their construction and how they are consumed and read by audiences.

Outcome 3: On completion of this unit the student should be able to analyse how the structural features of Australian fictional and non-fictional narratives in two or more media forms engage, and are consumed and read by, audiences.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- audio-visual/video sequences
- print layouts
- written responses
- sequences/presentations using digital technologies
- radio or audio sequence
- oral reports
- photographs
- posters

Please Note:

Students must satisfactorily complete Unit 1 &/or 2 Media before undertaking Units 3 & 4.

Media

Unit 2: Narrative across media forms

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

Areas of Study

1   Narrative, style and genre: How do media creators develop their style?

In this area of study, students explore and examine how narratives construct realities and meaning for audiences. Narratives are constructed and shaped referencing a rich production history. This includes the personal and distinctive style of media professionals who play leading roles in the construction of the narrative, the selection and manipulation of media codes and conventions that stem from a range of cultures and histories, and the influence and constraints of contextual factors affecting the creation, construction and distribution of the narrative.

Outcome 1: *On completion of this unit the student should be able to analyse the style of media creators and producers and the influences of narratives on the audience in different media forms.*

2   Narratives in production: How can we use the production process to create our own media narratives?

Students apply their theoretical learning to create and construct narratives in the form of media exercises that demonstrate one or more concepts covered in Area of Study 1, exploring how narratives are constructed and shaped by cultures, histories and contexts.

Outcome 2: *On completion of this unit the student should be able to apply the media production process to create, develop and construct narratives.*

3   Media and change: What is the impact of new media technologies on us as individuals and as a society?

Students investigate the relationship between emerging and pre-existing media forms, products and institutions. They evaluate the impact of developments on individuals, society and culture.

Outcome 3: *On completion of this unit the student should be able to discuss the influence of new media technologies on society, audiences, the individual, media industries and institutions.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- audio-visual or video sequences
- sequences or presentations using digital technologies
- radio or audio sequences
- photographs
- posters
- written responses
- print layouts
- oral reports

Please Note:

Students must satisfactorily complete Unit 1 &/or 2 Media before undertaking Units 3 & 4.

Media

Unit 3: Media narratives, contexts and pre-production

Students use the pre-production stage of the media production process to design the production of a media product for a specified audience. They explore and experiment with media technologies to develop skills in their selected media form and reflect on and document their progress. Students undertake pre-production planning appropriate to their selected media form and develop written and visual planning documents to support the production and post-production of a media product in Unit 4.

Areas of Study

1   Narratives and their contexts: How does the context of a narrative influence its construction and audience readings?

Students examine one fictional or non-fictional narrative in the form of film and/or television and/or radio and/or audio product (that may be broadcast or streamed) and/or photographic products. For the purposes of this area of study, the media product selected for study will comprise of one of the following:

- one feature length film product of one hour or more in length or the equivalent length in television or streaming
- an audio product, such as a podcast or radio drama, of one hour or more
- a photographic series with a narrative structure, such as a photojournalism essay/story or exhibition of narrative images
- a digital product, such as a video game, of equivalent length or complexity to the above media forms.

Outcome 1: On completion of this unit the student should be able to analyse the construction of media narratives; discuss audience engagement, consumption and reading of narratives; and analyse the relationship between narratives and the contexts in which they are produced.

2   Research, Development and Experimentation

Students investigate aspects of the media form in which they will make their productions, developing knowledge of narrative, genre, style, media codes and conventions and aspects of the works of media practitioners relevant to their proposed production. These investigations develop the student's style as a media creator and inform the development of their individual media product. Students also experiment with media technologies and media production processes to inform and document the plan for a media production.

Outcome 2: On completion of this unit the student should be able to research and document aspects of a media form, codes, narrative conventions, style, genre, story and plot to inform the plan for a media production.

3   Pre-production Planning

Informed by their learning in Area of Study 2, students use industry specific planning, using both written and visual documentation, to complete a pre-production plan. The plan incorporates a clear fictional, non-fictional or fictional/non-fictional narrative for a specified audience in a selected media form as outlined below. Students consider the relevant media codes and conventions of the selected media form.

Outcome 3: On completion of this unit the student should be able to develop and document a media pre-production plan demonstrating the student's concepts and intentions in a selected media form for a specified audience.

Assessment

The student's level of achievement in Unit 3 will be determined by School-assessed Coursework and the School-assessed Task. School-assessed Coursework for Unit 3 will contribute 10 per cent to the study score.

Media

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

In this unit students focus on the production and post-production stages of the media production process, bringing the pre-production plans created in Unit 3 to their realisation. Students refine their media production in response to feedback and through personal reflection, documenting the iterations of their production as they work towards completion. Students view a range of media products that demonstrate a range of values and views, and they analyse the role that media products and their creators play within the contexts of their time and place of production. Students explore the relationship between the media and audiences, focusing on the opportunities and challenges afforded by current developments in the media industry. They consider the nature of communication between the media and audiences, explore the capacity of the media to be used by governments, institutions and audiences, and analyse the role of the Australian government in regulating the media.

Areas of Study

1   Media production

The production, post-production and distribution stages of a media product are a natural progression from the pre-production stage of the media production process. Students move from production into post-production, where the manipulation, arrangement or layering of the ideas and material generated in pre-production and production leads to the realisation of their pre-production plans.

Outcome 1: On completion of this unit the student should be able to produce, refine, resolve and distribute to a specified audience a media product designed in Unit 3.

2   Agency and control in and of the media

The relationship between the media and audiences has never been more complex. The contemporary media landscape poses issues and challenges for the way that academics and commentators have traditionally theorised the nature of communication. The media has always been considered to have the capacity to influence, but now the balance of power is changing and arguments around who influences whom have become highly contested. The media and its audiences are now both thought to exercise agency; the capacity to act and exert power.

Outcome 2: On completion of this unit the student should be able to use evidence, arguments and ideas to discuss audience agency, media influence, media regulation and ethical and legal issues in the media.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- One production piece e.g. Photographs, Short film, Magazine\Newspaper
- School Assessed Task

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	20%
School Assessed Tasks (SAT)	40%
Unit 3 & 4 Examination	40%

Music Performance

Units 1 – 4

Music Performance Units 1 to 4 aims to broaden and enrich students' musical experience, to assist students to develop personal awareness of the expressive and aesthetic qualities of music and to encourage a life-long engagement with music and music making.

Music performance involves synthesis of knowledge of the music work/s being performed including their structure, style and context and their expressive qualities. Performance also requires the use of an instrument to interpret and realise the work, and knowledge and understanding of how to use an instrument/s to produce and manipulate sound. Performers use musicianship skills along with instrumental techniques to present musically engaging performances.

Through research and analysis of performances by leading practitioners, students become aware of ways that performance conventions, musical nuance and effective communication between performers and audience can facilitate engaging, exciting and meaningful performances. Students expand their musical vocabulary and develop language to articulate their awareness and understanding of the impact that interpretative decisions have on the music they perform, listen to and analyse.

Performance Examination

In Units 3 & 4, students choose whether they will present their external end-of-year performance examination program as a member of a group OR as a soloist. The program must be based on requirements for the end-of-year performance examination for group and solo contexts, in the *Prescribed List of Group Works* or the *Prescribed List of Notated Solo Works* for the selected instrument as published annually on the Victorian Curriculum and Assessment Authority website.

Please Note:

- Students must satisfactorily complete Units 1 & 2 Music Performance before undertaking Units 3 & 4 or have completed AMEB Grade 4 Music Language / Practical Equivalent
- It is advised and encouraged that all students studying Units 1 – 4 of Music Performance receive guidance from an instrumental teacher who is a specialist in their chosen instrument.
- Prerequisites for Unit 1 & 2 include: Year 10 Music (with a pass in both Aural and Theory) or AMEB Grade 3 Music Language (Theory and Aural) and Practical Equivalent.
- An entrance exam and audition must be satisfactorily completed if the above prerequisites cannot be met.

Music Performance

Unit 1: Organisation of Music

In this unit students explore and develop their understanding of how music is organised. By performing, creating, analysing and responding to music works that exhibit different approaches, students explore and develop their understanding of the possibilities of musical organisation. They prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding on their chosen instrument/sound source. They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied.

Areas of Study

1 Performance

In this area of study, students focus on practical music-making and performance skills by preparing and performing solo and ensemble works, one of which should be associated with a music approach studied in Area of Study 3. They develop their individual instrumental and musicianship skills through regular practice and develop group skills through rehearsal and performance with other musicians.

Outcome 1: *On completion of this unit the student should be able to rehearse and present planned performances using technical control, expression and stylistic understanding in at least two works (solo or ensemble), which demonstrate knowledge drawn from their investigation of music organisation.*

2 Creating

In this area of study, students create a folio of brief creative responses. At least one exercise should demonstrate their understanding of musical organisation and characteristics of at least one work selected for study in Area of Study 3. They develop appropriate methods of recording and preserving their music. Students reflect on their creative organisation by documenting their approach to creating the music, and identifying and describing their use of music elements, concepts and compositional devices.

Outcome 2: *On completion of this unit the student should be able to create short music works/responses that demonstrate their understanding of different approaches to musical organisation, and reflect on the creative process.*

3 Analysing and responding

Students analyse the treatment of specific music elements, concepts and compositional devices in music that have been created using different approaches to musical organisation. They develop skills in identifying how music is organised and the components of this organisation. They develop skills in aural analysis and respond to a range of excerpts in different styles and traditions. They develop their auditory discrimination and memory skills through identifying, recreating and documenting music language concepts, for example chords, scales, melodic and rhythmic patterns.

Outcome 3: *On completion of this unit the student should be able to describe how music is organised in at least two music examples, responding to music characteristics in a range of music excerpts and identifying how music is organised, and identifying, recreating and documenting music language concepts presented in context and in isolation.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

* Performances of at least two works, including at least one ensemble/group work
* A discussion of the challenges presented by these works
* Aural, oral, written and practical tasks
* Composition and/or improvisation exercises and accompanying discussion.

Music Performance

Unit 2: Effect in music

In this unit, students focus on the way music can be used to create an intended effect. By performing, analysing and responding to music works/examples that create different effects, students explore and develop their understanding of the possibilities of how effect can be created. Students prepare and perform ensemble and/or solo musical works to develop technical control, expression and stylistic understanding using their chosen instrument/sound source. They create (arrange, compose or improvise) short music exercises that reflect their understanding of the organisation of music and the processes they have studied.

Areas of Study

1   Performing

In this area of study, students prepare and perform solo and group works, one of which should demonstrate their understanding of effect in music. They convey meaning and/or emotion to an audience through practical music-making and further development of performance skills. They develop their individual instrumental and musicianship skills through regular practice and develop group skills through rehearsal and performance with other musicians. They perform and demonstrate technical skills specific to an instrument or sound source of their own choosing. Students may present on a variety of instruments and/or sound sources, and also sing as part of their program.

Outcome 1: *On completion of this unit the student should be able to rehearse and present planned performances using technical control, expression and stylistic understanding in at least two works (solo and/or group), describing how they intend to convey specific musical effect(s).*

2   Creating

In this area of study, students assemble a folio of brief responses using a variety of sound sources demonstrating their understanding of the possibilities of creating effect in music. They develop appropriate methods of recording and preserving their music. Students reflect on their responses by documenting their approach to creating effect in their music, and identifying and describing their use of music elements, concepts and compositional devices.

Outcome 2: *On completion of this unit students should be able to create short music works/responses that exhibit their understanding of different approaches to musical effects and reflect on the creative process.*

3   Analysing and responding

In this area of study, students develop skills in analysing how effect can be created in music and how the treatment of elements of music, concepts and compositional devices contribute to this effect. They respond to a range of excerpts in different styles and traditions, building understanding of how effect is realised. They continue to develop their auditory discrimination and memory skills through identifying, recreating and recording common musical language concepts and their effect, for example chords, scales and melodic and rhythmic patterns.

Outcome 3: *On completion of this unit the student should be able to identify the ways performers and creators convey effect in music, and they should be able to identify, recreate and document music language concepts in context and isolation.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Performances of at least two works, including at least one ensemble/group work
- A discussion of the challenges presented by these works
- Aural, written and practical tasks
- Composition exercises or improvisations and accompanying discussion that demonstrate an understanding of the organisation of music.

Music Performance

Unit 3: Music contemporary performance

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

Students analyse interpretation in a wide range of recorded music, responding to and analysing music elements, concepts, compositional devices and music language. Students also learn how to recognise and recreate music language concepts such as scales, melodies, chords, harmony and rhythmic materials that relate to contemporary music.

Areas of Study

1 Performing

In this area of study, students perform regularly in a variety of contexts and use these performances to explore and build on ways of developing technical skills and interpretation approaches relevant to the style(s) of the selected works. They investigate the possibilities of exhibiting personal voice by reimagining at least one existing work.

Outcome 1: *On completion of this unit the student should be able to perform a selection of works being prepared for the performance examination, demonstrating an understanding of music style, authentic performance conventions and a range of techniques, using a Performer's Statement of Intent to explain their choice of works for the program.*

2 Analysing for performance

In this area of study, students focus on the processes of analysis and practices that they undertake to develop their performances. This includes investigating how interpretation and a sense of personal voice may be developed in performance. Research materials may include musical scores, recordings and live performances, texts, digital sources and critical discussion with other musicians.

Outcome 2: *On completion of this unit the student should be able to demonstrate and discuss performance development techniques and approaches relevant to performance of selected works and an intended approach to a reimagined existing work.*

3 Responding

In this area of study, students develop their understanding of the ways elements of music, concepts and compositional devices can be interpreted and/or manipulated in contemporary performance. They demonstrate this knowledge through aural analysis and comparison of the ways in which different performers have interpreted and/or reimagined works in performance.

Outcome 3: *On completion of this unit the student should be able to discuss a performer's interpretation and manipulation of music elements and concepts in works, and identify, recreate and notate music language concepts from examples presented, both in context and in isolation.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks may include:

- Performances of works
- Create and/or arrange music
- Analyse and describe the treatment of music elements, concepts and compositional devices
- Listen and respond to selected music excerpts.

Music Performance

Unit 4: Music contemporary performance

Students continue to work towards building a performance program they will present at their end-of-year examination in line with their Statement of Intent. The program will contain at least one performance that is a reimagined version of an existing work and an original work created by an Australian artist since 1990. Students continue to study the work of other performers and their approaches to interpretation and personal voice in performing music works. They refine selected strategies to optimise their own approach to performance.

Areas of Study

1   Performing

In this area of study, students perform regularly in a variety of contexts and use these performances to consolidate their development of technical skills and interpretation approaches relevant to the style(s) of the selected works. They consolidate their approach to reimagining an existing work in performance. Across Unit 4, students must select a program of works for external assessment, using the performance examination specifications. One of the performed works will be a reimagining of an existing work, and the other will be an original work created by an Australian artist since 1990.

Outcome 1: On completion of this unit the student should be able to perform a program of works, including one work demonstrating a creative reimagining of an existing work, relevant to their performer's Statement of Intention.

2   Analysing for performance

In this area of study, students continue to focus on the processes of analysis and practices that they undertake to develop their performances, including approaches to reimagining an existing work. Students refine their understanding of how a sense of personal voice may be achieved in performance.

Outcome 2: On completion of this unit students should be able to demonstrate and discuss performance development techniques and reimagining approaches relevant to performance of selected works.

3   Responding

In this area of study, students continue to develop their understanding of the ways elements of music, concepts and compositional devices can be interpreted and/or manipulated in contemporary performance. They demonstrate this knowledge through aural analysis and comparison of the ways in which different performers have interpreted and/or reimagined works in performance.

Outcome 3: On completion of this unit the student should be able to discuss a performer's interpretation and manipulation of music elements and concepts in works, identifying and transcribing short examples of music using appropriate notation.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Performances of works
- Performance of unprepared material
- Demonstration and explanation of technical work and exercises
- Aural, written and practical tasks.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	10%
End of Year Performance Examination	50%
End of Year Aural and Written Examination	20%

Music Performance

Unit 3: Music repertoire performance

In this unit students begin developing the recital program they will present in Unit 4. This preparation includes consideration of the historical performance practices and interpretative traditions that inform the styles represented in their programs.

Students use music analysis skills to refine strategies for developing their performances. They analyse technical, expressive and stylistic challenges relevant to the works they are preparing for performance, and present these strategies for assessment at a school-based discussion.

Areas of Study

1 Performing

In this area of study, students present performances of musical works including at least one ensemble work. Students perform regularly in a variety of contexts. They reflect on these performances to explore and develop ways of communicating expressive intentions to an audience. They develop musicianship skills through regular individual practice, and ensemble skills through structured rehearsal with other musicians.

Outcome 1: *On completion of this unit the student should be able to explain the artistic and practical considerations used to select a program of works for performance, and demonstrate a diverse range of techniques and expressive qualities through performance of works or sections of works including one work from the prescribed list intended for their final recital program and at least one ensemble work.*

2 Analysing for performance

In this area of study, students focus on the processes of analysis and research that they undertake when preparing musical works for performance. Research materials include musical scores, sound recordings, texts, live performances and critical discussion with other musicians. As students develop their recital program, they trial a wide range of general practise techniques and instrument-specific strategies. Students evaluate the strengths and weaknesses in their performance capabilities and develop a planned approach to improvement.

Outcome 2: *On completion of this unit the student should be able to demonstrate and discuss techniques related to performance of selected works, including aspects of interpretation.*

3 Responding

In this area of study, students develop their understanding of the ways elements of music, concepts and compositional devices can be interpreted and/or manipulated by other musicians. They demonstrate this knowledge through analysis of a wide variety of performances and recordings, including works created by Australian composers since 1990. They also compare the ways different musicians have interpreted the same musical work.

Outcome 3: *On completion of this unit the student should be able to discuss the interpretation of expressive elements of music, and identify, recreate, notate and transcribe short excerpts of music using voice or instrument.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Performances of works
- Create and/or arrange music
- Analyse and describe the treatment of music elements, concepts and compositional devices
- Listen and respond to selected music excerpts.

Music Performance

Unit 4: Music repertoire performance

In this unit students continue to develop the performance program established in Unit 3 for their end-of-year practical examination. This preparation includes consideration of the historical performance practices and interpretative traditions that inform the styles represented in their programs. Students use music analysis skills to refine strategies for further developing and presenting their final recital. They analyse technical, expressive and stylistic challenges relevant to the works they are preparing for performance, and present these strategies for assessment at a school-based viva voce.

Areas of Study

1   Performing

In this area of study, students present performances of musical works including at least one ensemble work. Students perform regularly in a variety of contexts. They reflect on these performances to explore and build on ways of expressively shaping their chosen works and communicating their artistic intentions to an audience. They develop musicianship skills through regular individual practice, and ensemble skills through structured rehearsal with other musicians.

Outcome 1: *On completion of this unit the student should be able to perform a final recital of up to 20 minutes' duration, demonstrating a diverse range of techniques and expressive qualities reflecting an understanding of a range of music styles and performance conventions.*

2   Analysing for performance

In this area of study, students focus on the processes of analysis and research that they undertake when preparing musical works for performance. Research materials include musical scores, sound recordings, live performances, texts and critical discussion with other musicians. As students conclude the refinement of their recital program, they trial a wide range of general practise techniques and instrument-specific strategies. Students evaluate the strengths and weaknesses in their performance capabilities and develop a planned approach to improvement.

Outcome 2: *On completion of this unit the student should be able to demonstrate and discuss techniques (technical and expressive) relevant to the performance and development of a personal interpretation of works selected for performance.*

3   Responding

In this area of study, students develop their understanding of the ways elements of music and musical concepts are interpreted by other musicians. They demonstrate this knowledge through analysis of a wide variety of recordings and live performances, including works created by Australian composers since 1990. They also compare the ways different musicians have interpreted the same musical work.

Outcome 3: *On completion of this unit the student should be able to discuss the interpretation of expressive elements of music in pre-recorded works and develop their auditory discrimination and memory skills through identifying, re-creating and notating short examples.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Performances of works
- Demonstration and explanation of technical work and exercises
- Performance of unprepared material
- Aural, written and practical tasks.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	10%
End of Year Performance Examination	50%
End of Year Aural and Written Examination	20%

Outdoor and Environmental Studies

Outdoor and Environmental Studies offer students the opportunity to develop their understanding of outdoor environments through human-nature relationships and sustainable practices following the minimal impact code. The study enables students to make critically informed comments on outdoor environmental issues, including asking questions about environmental sustainability and human connections to Country, both past and present.

VCE Outdoor and Environmental Studies provide students with the skills and knowledge to participate safely and sustainably in a range of outdoor experiences and environments. By spending extended periods of time in outdoor environments in areas such as coastal areas, rivers, mountains, bushlands, forests, urban parks, cultural and historical sites, and state or national parks students learn to respect and value these environments. Participating in adventure activities which include bushwalking, cross-country skiing, conservation and restoration activities, marine exploration, and community projects. This enables students to critically analyse different human relationships with outdoor environments and their subsequent effects. This includes socio-ecological issues at local and national levels provides students with the knowledge and skills to participate in, and contribute to, contemporary society by supporting and creating solutions for the future health of outdoor environments.

Through its cross-disciplinary approach to studying outdoor environments, the study informs a range of future pathways, including formal study and involvement in areas where knowledge of, and interaction with, outdoor environments is central, such as natural resource management, nature-based tourism, conservation advocacy, outdoor leading and guiding, environmental research and policy, education, and agriculture.

This study enables students to:
- develop experiential relationships with, and knowledge of, outdoor environments through practical experiences varying in duration
- develop an understanding of the ecological, historical, cultural, economic and social factors that have affected and will continue to affect the health of a range of different outdoor environments
- develop practical skills, knowledge and behaviours that promote safe and sustainable interaction with varied outdoor environments, both local and afar
- identify, analyse and contribute to the strategies used to protect, conserve and manage outdoor environments in a sustainable manner
- develop an understanding of historical and contemporary Indigenous peoples' relationships with outdoor environments via knowledge systems and traditional management techniques
- understand the role of environmental policy in maintaining the health of outdoor environments in Australia, including the influence of the public in shaping local, state and federal government legislation.

In order to receive a satisfactory result for all outdoor and environmental study units, students must attend each of the practical experiences. These are designed so students can enrich their understanding and link theory into practice in a range of outdoor environments. In assessments, students will have to demonstrate their understanding of how their participation on the camps links to what they have been studying. The theory looks at learning about different types of environments as well as why and how humans use these environments in different ways and the impacts of this.

A medical certificate must be presented if a student is absent that covers them for the duration of the experience.

Outdoor and Environmental Studies

Unit 1: Connections with outdoor environments

This unit examines some of the ways in which Indigenous peoples and non-Indigenous peoples understand and relate to nature through experiencing outdoor environments. The focus is on individuals and their personal responses to experiencing outdoor environments. Students are provided with the opportunity to explore the many ways in which nature is understood and perceived. Students develop a clear understanding of the range of motivations for interacting with outdoor environments, the factors that affect an individual's access to experiencing outdoor environments and how they connect with outdoor environments. Through outdoor experiences, students develop practical skills and knowledge to help them act 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.

Areas of Study

1   Our place in outdoor environments

Students examine how humans connect with outdoor environments and why these connections are important. They consider a range of contemporary uses and meanings of the term 'nature' and examine a variety of outdoor environments. Students are introduced to Indigenous people's perspectives on the ways humans connect with outdoor environments.

Students learn to participate safely in outdoor experiences and use their experiences and observations as the basis for reflection and analysis of key skills and knowledge from this area of study.

Outcome 1: On completion of this unit, the student should be able to analyse motivations for experiencing outdoor environments and plan to safely participate in specific outdoor experiences.

2   Exploring outdoor environments

Students understand how their personal responses are influenced by media portrayals of outdoor environments and perceptions of risk involved in outdoor experiences.

Practical outdoor experiences provide students with the opportunity to observe and experience various ways of encountering and understanding outdoor environments. Students consider factors that affect access to outdoor experiences and explain the effect of different technologies on outdoor experiences, examining how these factors and technologies influence the ways humans understand nature.

Outcome 2: On completion of this unit the student should be able to explain factors that influence personal responses and access to outdoor experiences and interact sustainably with outdoor environments.

3   Safe and sustainable participation in outdoor experiences

This area of study focuses on planning and participating in outdoor experiences. Experiencing outdoor environments safely requires an understanding of how to plan and conduct sustainable outdoor experiences in chosen outdoor environments.

In this area of study students contribute to designing an outdoor experience(s) that enables them to appropriately demonstrate key knowledge and skills, as well as undertake the outdoor experience, and reflect on its success, suggesting changes for the future.

Outcome 3: On completion of this unit the student should be able to evaluate strategies for safe and sustainable participation in outdoor experiences.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A case study
- An oral presentation which can include the use of multimedia and podcast
- Data analysis
- A written response to an issue
- A visual presentation such as a graphic organiser, concept/mind map, annotated poster or presentation file.
- A practical demonstration of key skills, with reference to outdoor experiences In addition to ongoing logbook entries of outdoor practical experiences.

Outdoor and Environmental Studies

Unit 2: Discovering outdoor environments

This unit focuses on the different ways to understand outdoor environments and the impact of humans on outdoor environments. In this unit students study the effects of natural changes and impacts of land management practices on the sustainability of outdoor environments by examining a number of case studies of specific outdoor environments, including areas where there is evidence of human intervention. Students develop the practical skills required to minimise the impact of humans on outdoor environments. They comprehend a range of vocational perspectives that inform human use of outdoor environments. Through reflecting upon their experiences of outdoor environments, students make comparisons between outdoor environments, as well as develop theoretical knowledge about natural environments.

Areas of Study

1   Understanding outdoor environments

This area of study introduces students to a range of understandings of outdoor environments, including those visited during practical outdoor experiences locally and afar. Students investigate different types of outdoor environments from several perspectives, and how these environments are managed. They investigate a range of vocational perspectives that inform human use of outdoor environments. Students learn to participate safely in outdoor experiences and use their experiences and observations as the basis for reflection on, and analysis of, key knowledge from this area of study.

Outcome 1: *On completion of this unit the student should be able to describe a range of understandings of outdoor environments and the effect of natural changes with reference to specific outdoor experiences.*

2   Observing Impacts on outdoor environments

This area of study focuses on human activities undertaken in outdoor environments and their impacts on those environments. Although environmental impacts include both natural and human-induced changes on components of the environment, the focus in this area of study is on the observation of impacts of humans, both positive and negative. Students investigate and model individual and group responsibilities for activities in outdoor environments, including community-based environmental action to promote positive impacts on outdoor environments.

Practical outdoor experiences enable students to develop skills related to minimal impact travelling and living. Students use these experiences as the basis for reflection on, and analysis of, theoretical knowledge about the effects of natural changes and human-induced impacts on outdoor environments.

Outcome 2: *On completion of this unit the student should be able to evaluate the impacts of humans on outdoor environments and associated management strategies, with reference to specific outdoor experiences.*

3   Independent participation in outdoor environments

In this area of study studanding of the chosen outdoor environment and analyse how this environment is impacted upon by human user groups. Students will plan for their outdoor experience and peer lead the experience with their peers. During the experience they will analyse the impacts of other users and themselves on the outdoor environment and investigate ways to reduce this and promote sustainable interactions. As a result of this outdoor experience investigation, students will suggest changes to the management of users in their chosen outdoor environment and work to promote sustainable interactions into the future.

Outcome 3: *On completion of this unit the student should be able to participate in a range of outdoor experiences safely and sustainably in an independent manner.*

To achieve this outcome the student will gather and analyse evidence that draws on key knowledge and applies the key skills outlined in Area of Study 3.

Assessment

Students will be required to demonstrate satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study
- Media Analysis
- Data analysis
- Oral presentation
- Written response to an issue
- Visual presentation such as a graphic organiser, concept/mind map, annotated poster, or presentation file.

Outdoor and Environmental Studies

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 a range 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 several factors that influence relationships with outdoor environments. They also examine the dynamic nature of relationships between humans and their environment. Students are involved in multiple experiences in outdoor environments, including in areas where there is evidence of human interaction. Through these practical experiences, students make comparisons between, and reflect upon, outdoor environments, as well as develop theoretical knowledge and skills about specific outdoor environments. Students undertake an independent investigation into the changing relationships with, and sustainability of, at least two different visited outdoor environments across both Units 3 and 4.

Areas of Study

1   Changing human relationships with outdoor environments

This area of study explores how humans have understood and interacted with Australian outdoor environments over time. Students examine the unique nature of Australian outdoor environments and investigate a range of human relationships with outdoor environments, from various Indigenous peoples' cultural experiences, through to the influence of several major historical environmental events and issues following European colonisation.

Case studies are used to analyse the role of environmental movements in changing human relationships with outdoor environments at state and local level, and their influence on the development of government policies.

Students engage in practical outdoor experiences that enable them to investigate human relationships with specific outdoor environments.

Outcome 1: *On completion of this unit the student should be able to analyse the changing nature of relationships with outdoor environments between Indigenous and non-Indigenous Australians at a local and state level over time,and evaluate the impact of environmentalism on political parties and/or policies.*

2   Relationships with Australian environments in the past decade

In this area of study students examine conflicting values of human use and relationships with outdoor environments in the past decade. They examine a number of ways outdoor environments are depicted in different media. The dynamic nature of relationships between humans and outdoor environments are considered, as well as the social, cultural, economic and political factors that influence these relationships.

Students engage in practical outdoor experiences that enable them to collect information about, reflect on, and analyse specific relationships with outdoor environments in the last decade, including conflicts over such relationships.

Outcome 2: *On completion of this unit the student should be able to analyse factors that influence relationships between humans and outdoor environments in the last decade, and evaluate methods and processes used to influence relationships and decisions about the use of outdoor environments.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study
- Oral presentation
- Data analysis
- Media analysis
- Visual Presentation such as graphic organiser, concept/mind map, annotated poster.

Outdoor and Environmental Studies

Unit 4: Sustainable outdoor environments

In this unit students explore the sustainable use and management of outdoor environments. They observe and assess the health of outdoor environments and consider the importance of this health for the future of Australian outdoor environments and the Australian population. Students examine the importance of the sustainability of human relationships with outdoor environments and the urgent need to balance human needs and the needs of outdoor environments. They investigate current acts and conventions as well as management strategies for achieving and maintaining healthy and sustainable Australian outdoor environments in contemporary Australian society. 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 healthy outdoor environments and evaluate the strategies and actions they employ.

Areas of Study

1   The importance of healthy outdoor environments

This area of study explores the contemporary state of outdoor environments in Australia and the importance of environments for individuals and society. Students examine the nature of sustainability and use observations to evaluate the health of outdoor environments. They investigate current and potential threats to a range of outdoor environments and the subsequent impacts, as well as proposing improved solutions for environmental sustainability.

Outcome 1: *On completion of this unit the student should be able to describe a range of environmental sustainability measures, analyse threats to outdoor environments and justify the importance of healthy outdoor environments for individuals and society, with reference to specific outdoor experiences.*

2   The future of outdoor environments

Students explore the sustainable use and management of outdoor environments. They examine a range of land management practices in different environments and investigate local and individual actions to sustain outdoor environments, now and into the future. Students examine the importance of developing a balance between human needs and the conservation of outdoor environments, and consider the skills needed to be environmentally responsible citizens. They investigate current Acts and conventions and propose improvements to these for greater conservation benefits.

Outcome 2: *On completion of this unit the student should be able evaluate practices and strategies for sustaining outdoor environments, with reference to specific outdoor experiences.*

3   Investigating outdoor environments

Students undertake an independent investigation, collecting and evaluating information gathered during at least two different visited outdoor environments across both Units 3 and 4. The investigation requires students to generate primary data (such as observations, images, interviews, documents) from time spent in the selected outdoor environments, and combine this with the collation of any required secondary data. The collected data should draw together understandings of outdoor environments related to the human relationships with, and the health and sustainable use of, the selected outdoor environments, and allow for the evaluation of the selected outdoor environments.

Outcome 3: *On completion of this unit the student should be able to plan and conduct an independent investigation that evaluates selected outdoor environments.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Case study or data analysis
- Structured questions
- Oral Presentation
- Written report
- Media analysis

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	50%

Physical Education

Unit 1: The human body in motion

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

Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms.

They also recommend and implement strategies to minimise the risk of illness or injury to each system.

Areas of Study

1   How does the musculoskeletal system work to produce movement?

In this area of study students examine the musculoskeletal system of the human body and how the muscles and bones work together to produce movement. They explore the major components of the musculoskeletal system and their contributions and interactions during physical activity, sport and exercise. Students evaluate the social, cultural and environmental influences on movement, and how the capacity and functioning of the muscular and skeletal systems may act as an enabler or barrier to participation in physical activity.

Sedentary behaviour, overtraining and participation at the elite and recreational level are investigated as possible causes of illness and injury to the musculoskeletal system. Students consider a variety of legal and illegal practices and substances used to enhance performance from an ethical and a biophysical perspective.

Outcome 1: On completion of this unit students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement.

2   How does the cardiorespiratory system function at rest and during physical activity?

In this area of study students examine 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 structure and function of the cardiorespiratory system and their contributions and interactions during physical activity, sport and exercise. Enablers and barriers to the capacity and functioning of the cardiovascular and respiratory systems are investigated from a sociocultural, environmental and physical perspective. Students explore the ethical and performance considerations of the use of a variety of legal and illegal practices and substances specific to each system.

Outcome 2: On completion of this unit students should be able to collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks may include:

- Tests
- Practical Laboratory Reports
- Case Study Analysis
- Written Report
- Exam

Physical Education

Unit 2: Physical activity, sport and society

This unit develops students' understanding of physical activity, sport and society from a participatory perspective.

Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups.

Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied.

Areas of Study

1   What are the relationships between physical activity, sport, health and society?

In this area of study students focus on the role of physical activity, sport and society in developing and promoting healthy lifestyles and participation in physical activity across the lifespan. Students explore the social, cultural and historical influences on participation in various forms of physical activity, including sport. They investigate at the individual and population levels the physical, social, mental and emotional benefits of participation in regular physical activity and the potential negative physical, social, mental and emotional consequences of physical inactivity and sedentary behaviour, including hypokinetic diseases such as Type 2 diabetes and obesity.

Students investigate sociocultural factors that influence physical activity and consider opportunities and barriers to participation for various population groups and settings. They create and implement an individual activity plan that meets the physical activity and sedentary behaviour guidelines.

Outcome 1: *On completion of this unit the student should be able to collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan that meets the physical activity and sedentary behaviour guidelines for an individual or a specific group.*

2   What are the contemporary issues associated with physical activity and sport?

In this area of study students focus on a range of contemporary issues associated with physical activity and/or sport at the local, national and global level. They investigate in detail one issue relevant to physical activity and/ or sport. Students select and explore one issue from a social-ecological perspective to evaluate the affect of individual, social, policy and physical environmental factors on participation in physical activity. Students develop an understanding of the historical, and current perspectives of the issue and forecast future trends. They form conclusions in relation to the impact these factors have on physical activity and sport in society.

Outcome 2: *On completion of this unit the student should be able to apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with participation in physical activity and/or sport in a local, national or global setting.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Tests
- Practical Laboratory reports
- Data Analysis
- Written Report
- Exam

Physical Education

Unit 3: Movement skills and energy for physical activity

This unit introduces students to the biomechanical and skill acquisition principles used to analyse human movement skills and energy production from a physiological perspective. Students use a variety of tools and techniques to analyse movement skills and apply biomechanical and skill acquisition principles to improve and refine movement in physical activity, sport and exercise. They use practical activities to demonstrate how correct application of these principles can lead to improved performance in physical activity and sport. Students investigate the relative contribution and interplay of the three energy systems to performance in physical activity, sport and exercise. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the causes of fatigue and consider different strategies used to postpone fatigue and promote recovery.

Areas of Study

1   How are movement skills improved?

In this area of study students examine the biomechanical and skill acquisition principles that can be applied when analysing and improving movement skills used in physical activity and sport. Through coaching and involvement in a variety of practical activities, students investigate and analyse movements to develop an understanding of how the correct application of biomechanical and skill acquisition principles leads to greater efficiency and accuracy in movement skills.

Outcome 1: *On completion of this unit the student should be able to collect and analyse information from, and participate in, a variety of physical activities to develop and refine movement skills from a coaching perspective, through the application of biomechanical and skill acquisition principles.*

2   How does the body produce energy?

In this area of study students explore the various systems and mechanisms associated with the production of energy required for human movement. They consider the cardiovascular, respiratory and muscular systems and the roles of each in supplying oxygen and energy to the working muscles. They examine the way in which energy for activity is produced by the three energy systems and the associated fuels used for activities of varying intensity and duration. Students also consider the many factors contributing to fatigue as well as recovery strategies used to return to pre-exercise conditions. Through practical activities students explore the interplay of the energy systems during physical activity.

Outcome 2: *On completion of this unit the student should be able to use data collected in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain the factors causing fatigue and suitable recovery strategies.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Tests
- Practical Laboratory reports
- Reflective folio of participation in physical activities
- Case Study and/or Data Analysis
- Visual and/or multimedia presentations
- Exam

Physical Education

Unit 4: Training to improve performance

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

Students participate in a variety of training sessions designed to improve or maintain fitness and evaluate the effectiveness of different training methods. Students critique the effectiveness of the implementation of training principles and methods to meet the needs of the individual, and evaluate the chronic adaptations to training from a theoretical perspective.

Areas of Study

1   What are the foundations of an effective training program?

In this area of study students focus on the information required to form the foundation of an effective training program. They use data from an activity analysis and determine the fitness requirements of a selected physical activity. They also use data collected from participating in a series of fitness tests to inform the design of the training program. Students determine the relevant factors that affect each of the fitness components, and conduct a series of fitness tests that demonstrate correct and ethical implementation of testing protocols and procedures.

Outcome 1: *On completion of this unit the student should be able to analyse data from an activity analysis and fitness tests to determine and assess the fitness components and energy system requirements of the activity.*

2   How is training implemented effectively to improve fitness?

In this area of study students focus on the implementation and evaluation of training principles and methods from a practical and theoretical perspective. They consider the manner in which fitness can be improved through the application of appropriate training principles and methods. Students identify and consider components of an exercise training session, they monitor, record and adjust training. Students explain the chronic adaptations to the cardiovascular, respiratory and muscular systems.

Outcome 2: *On completion of this unit the student should be able to participate in a variety of training methods, and design and evaluate training programs to enhance specific fitness components.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Tests
- Practical Laboratory reports
- Reflective folio of participation in physical activities
- Case Study and/or Data Analysis
- Exam

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Physics

Unit 1: How is energy useful to society?

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

Areas of Study

1   How are light and heat explained?

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

Outcome 1: *On completion of this unit the student should be able to model, investigate and evaluate the wave-like nature of light, thermal energy and the emission and absorption of light by matter.*

2   How is energy from the nucleus ultilised?

In this area of study, students build on their understanding of energy to explore energy that derives from the nuclei of atoms. They learn about the properties of the radiation from the nucleus and the effects of this radiation on human cells and tissues and apply this understanding to the use of radioisotopes in medical therapy. Students explore the transfer of energy from the nucleus through the processes of fission and fusion and apply these ideas to evaluate the viability of nuclear energy as an energy source for Australia.

Outcome 2: *On completion of this unit the student should be able to explain, apply and evaluate nuclear radiation, radioactive decay and nuclear energy.*

3   How can electricity be used to transfer energy?

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

Outcome 3: *On completion of this unit the student should be able to investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Refer to Unit 2 for example assessment tasks.

Please Note:
- It is recommended that students satisfactorily complete (at minimum) Unit 2 Physics before undertaking Units 3 & 4.
- It is recommended that students undertake a minimum of General Mathematics in conjunction with Physics, however the preference is Mathematical Methods.

Physics

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

In this unit students explore the power of experiments in developing models and theories. They investigate a variety of phenomena by making their own observations and generating questions, which in turn lead to experiments. In Area of Study 1, students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary and apply these concepts to a chosen case study of motion. In Area of Study 2, students choose one of eighteen options to pursue an area of interest through an investigation and using physics to justify a stance, response or solution to a contemporary societal issue or application related to the option. A student-adapted or student-designed scientific investigation is undertaken in Area of Study 3.

Areas of Study

1   How is motion understood?

In this area of study, students describe and analyse graphically, numerically and algebraically the energy and motion of an object, using specific physics terminology and conventions. They consider the effects of balanced and unbalanced forces on motion and investigate the translational and rotational forces on static structures. Students apply mathematical models during experimental investigations of motion and apply their understanding of motion and force through a case study.

Outcome 1: On completion of this unit the student should be able to investigate, analyse, mathematically model and apply force, energy and motion.

2   Options: How does physics inform contemporary issues and applications in society?

In this area of study, students develop a deeper understanding of an area of interest within diverse areas of physics. They select from eighteen options, explore the related physics and use this physics to form a stance, opinion or solution to a contemporary societal issue or application. In their explorations, a range of investigation methodologies may be used by students. See the VCAA Physics study design for the eighteen option questions.

Outcome 2: On completion of this unit the student should be able to investigate and apply physics knowledge to develop and communicate an informed response to a contemporary societal issue or application related to a selected option.

3   How do physicists investigate questions?

In this area of study, students adapt or design and then conduct a scientific investigation to generate appropriate primary qualitative and/or quantitative data, organise and interpret the data, and reach and evaluate a conclusion in response to the research question.

Outcome 3: On completion of this unit the student should be able to draw an evidence-based conclusion from primary data generated from a student-adapted or student-designed scientific investigation related to a selected physics question.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks for both Unit 1 and Unit 2 may include:

- Data analysis
- Media response
- Annotations of practical work
- Test, multiple choice, short answer and/or extended response
- Problem-Solving Task
- A report of a student-designed practical investigation

Please Note:

- It is recommended that students satisfactorily complete (at minimum) Unit 2 Physics before undertaking Units 3&4.
- It is recommended that students undertake a minimum of General Mathematics in conjunction with Physics.

Physics

Unit 3: How do fields explain motion and electricity?

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

Areas of Study

1   How do physicists explain motion in two dimensions?

In this area of study, students use Newton's laws of motion to analyse linear motion, circular motion and projectile motion. Newton's laws of motion give important insights into a range of motion both on Earth and beyond through the investigations of objects on land and in orbit. They explore the motion of objects under the influence of a gravitational field on the surface of Earth, close to Earth and above Earth. They explore the relationships between force, energy and mass.

Outcome 1: On completion of this unit the student should be able to investigate motion and related energy transformations experimentally, and analyse motion using Newton's laws of motion in one and two dimensions.

2   How do things move without contact?

Field models are used to explain the behaviour of objects when there is no apparent contact. In this area of study, students examine the similarities and differences between three fields: gravitational, electric and magnetic. Students explore how positions in fields determine the potential energy of, and the force on, an object. They investigate how concepts related to field models can be applied to construct motors, maintain satellite orbits and to accelerate particles including in a synchrotron.

Outcome 2: On completion of this unit the student should be able to analyse gravitational, electric and magnetic fields, and apply these to explain the operation of motors and particle accelerators, and the orbits of satellites.

3   How are fields used in electricity generation?

The production, distribution and use of electricity has had a major impact on the way that humans live. In this area of study, students use empirical evidence and models of electric, magnetic and electromagnetic effects to explain how electricity is produced and delivered to homes. They explore the transformer as critical to the performance of electrical distribution systems in minimising power loss.

Outcome 3: On completion of this unit the student should be able to analyse and evaluate an electricity generation and distribution system.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Unit 3 will include:

- application of physics concepts to explain a model, theory, device, design or innovation
- problem-solving, applying physics concepts and skills to real-world contexts
- analysis and evaluation of primary and/or secondary data, including data plotting, identified assumptions or data limitations, and conclusions
- comparison and evaluation of two solutions to a problem, two explanations of a physics phenomenon or concept, or two methods and/or findings from practical activities.

Physics

Unit 4: How have creative ideas and investigation revolutionised thinking in physics?

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

Areas of Study

1   How has understanding about the physical world changed?

In this area of study, students learn how understanding of light, matter and motion have changed over time. They explore how major experiments led to the development of theories to describe these fundamental aspects of the physical world. Students consider the limitations of classical mechanics as they explore Einstein's view of the Universe. They consider postulates as distinct from theories and explore ideas related to objects moving at speeds approaching the speed of light. They use special relativity to explore length contraction and time dilation as observations are made by observers in different frames of reference, and the interrelationship between matter and energy.

Outcome 1: On completion of this unit the student should be able to analyse and apply models that explain the nature of light and matter, and use special relativity to explain observations made when objects are moving at speeds approaching the speed of light.

2   How is scientific inquiry used to investigate fields, motion or light?

Students undertake a student-designed scientific investigation in either Unit 3 or Unit 4, or across both Units 3 and 4. The investigation involves the generation of primary data relating to fields, motion or light. The investigation draws on knowledge and related key science skills developed across Units 3 and 4 and is undertaken by students in the laboratory and/or in the field.

Outcome 2: On completion of this unit the student should be able to provide evidence for the nature of light and matter, and analyse the data from experiments that supports this evidence.

3   Practical Investigation

The investigation requires the student to develop a question, formulate a hypothesis and plan a course of action to answer the question and that complies with safety and ethical guidelines. Students then undertake an experiment that involves the collection of primary quantitative data, analyse and evaluate the data, identify limitations of data and methods, link experimental results to science ideas, reach a conclusion in response to the question and suggest further investigations that may be undertaken. The student is expected to design and undertake an investigation involving two continuous independent variables.

Outcome 3: On completion of this unit the student should be able to design and conduct a scientific investigation related to fields, motion or light, and present an aim, methodology and method, results, discussion and a conclusion in a scientific poster.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Refer to Unit 3 for types of assessment tasks.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	30%
Unit 4 School Assessed Coursework	20%
Unit 3 & 4 Examination	50%

Politics

Unit 1: Politics, power and political actors

In this unit, students learn that politics is about how political actors use power to resolve issues and conflicts over how society should operate. Students consider the concept of power by examining why and how political power is used, with special attention to the way national and global political actors exercise power and the consequences of that use.

Areas of Study

1 Power and national political actors

In this area of study, students are introduced to the central concepts of power and legitimacy. Power comes in different forms and arises from different sources, such as legal authority, or military, economic, diplomatic, cultural and technological capacities. Students investigate the types of political actors within states including Australia, and the sources and forms of their power. Students engage with political thinking through the ideas, institutions and processes that underpin the legitimacy of the Australian system of government.

Outcome 1: On completion of this unit the student should be able to explain the sources of power and legitimacy of national political actors and analyse the political significance of Australian political actors' use of power in a contested domestic political issue.

2 Power and global political actors

In this area of study, students focus on the political actors who can move beyond and across national and regional boundaries to pursue their interests globally. This has been facilitated by the increasing interconnectedness of the world. These 'global' actors are predominantly states and their leaders, institutions of global governance or of regional cooperation, non-government organisations, transnational corporations of all kinds and some high-profile individuals. Students engage with political thinking through an inquiry into the power, interests, and perspectives of global actors' responses to an issue. They explain how ideology and interests can lead to a global political actor becoming involved in conflict or cooperation. They analyse the power of a variety of global political actors and examine the impact of global interconnectedness on that power, leading to an assessment of the political significance of those actors.

Outcome 2: On completion of this unit the student should be able to analyse the power, interests and perspectives of global political actors and evaluate their political significance in at least one global issue.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:
- a political inquiry
- analysis and evaluation of sources
- a multimedia presentation
- a political debate
- a political simulation
- a political brief
- extended responses
- short-answer questions
- an essay

Politics

Unit 2: Democracy: stability and change

In this unit, students investigate the key principles of democracy and assess the degree to which these principles are expressed, experienced and challenged, in Australia and internationally. They consider democratic principles in the Australian context and complete an in-depth study of a political issue or crisis that inherently challenges basic democratic ideas or practice. Students also investigate the degree to which global political actors and trends can challenge, inhibit or undermine democracy, and evaluate the political significance of these challenges.

Areas of Study

1   Issues for Australia's democracy

In this area of study, students analyse the operation of Australian democracy, democratic institutions and processes, and assess the political significance of challenges to democratic principles. Students investigate a key issue and consider its relationship to the success of Australian democracy, the tensions and conflict between forces working for political stability and those working for change, and how the democratic rights of citizens may challenge established policies, practices and norms.

Outcome 1: On completion of this unit the student should be able to analyse at least one Australian political issue and evaluate the extent to which Australian democracy and democratic principles are upheld.

2   Global challenges to democracy

In this area of study, students analyse global challenges to the principles of democracy and assess threats to their effectiveness, legitimacy, spread and impact. Students explore at least one global issue or crisis that challenges the importance of democratic principles and consider the causes and consequences of this issue or crisis. Through their investigation, students discover the significant impact states and other global actors may have on the legitimacy and spread of democratic principles, such as free and fair elections, accountability and transparency in political processes, rule of law, human rights, equality and the separation of powers. They analyse the degree to which the interests of global actors can significantly undermine or promote these principles, especially in situations of crisis where political, economic or security needs may be prioritised over human rights or the rule of law.

Outcome 2: On completion of this unit the student should be able to analyse at least one global challenge to the legitimacy and spread of democracy and evaluate the political significance of this challenge to democratic principles.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- a political inquiry
- analysis and evaluation of sources
- a multimedia presentation
- a political debate
- a political simulation
- a political brief
- extended responses
- short-answer questions
- an essay

Product Design and Technology (Textiles)

Unit 1: Design practices

In this unit, students analyse and evaluate existing products and current technological innovations in product design. They achieve this through understanding the importance of a design brief, learning about factors that influence design, and using the Double Diamond design approach as a framework.

In their practical work, students explore and test materials, tools and processes available to them in order to work technologically, and they practise safe skill development when creating an innovative product. This is achieved through the development of graphical product concepts and the use of prototypes to explore and propose physical product concepts.

Areas of Study

1   Developing and conceptualising designs

In this area of study, students focus on the first diamond in the Double Diamond design approach to investigate and define needs and/or opportunities. They propose graphical product concepts using visualisations, design options and working drawings. This gives them the opportunity to demonstrate design thinking that incorporates critical, creative and speculative thinking.

Students work in various design specialisations and have opportunities to work individually, in teams, and collaboratively in their classroom environment. Teamwork encourages communication between students and mirrors professional design practice where designers, when developing designed solutions, have identified roles within transdisciplinary and interdisciplinary teams. Teamwork combines individual efforts of all team members to achieve a goal. Additionally, collaboration occurs when students are working together on classroom activities and completing work collectively.

Outcome 1: On completion of this unit the student should be able to apply design thinking strategies to research, critique and communicate a response to a need or opportunity and work collaboratively and in teams to develop and propose graphical product concepts that address a design brief.

2   Generating, designing and producing

In this area of study, students focus on the second diamond in the Double Diamond design approach to develop, trial and test physical product concepts, and make a designed product. Based on the graphical product concepts proposed in Outcome 1, trials and tests are conducted to inform, evaluate and critique physical product concepts and to justify the selection of the chosen product concept and its production processes. Students develop a final proof of concept and implement a scheduled production plan to make the product efficiently and effectively. They explore available materials, tools and processes, and develop skills in using them to develop technacy through generating, designing, producing and implementing. Students use various materials, tools and processes to demonstrate how products can be a synthesis of various design specialisations and technologies. They have further opportunities to work individually, collaboratively and in teams to share work, knowledge and skills. Students evaluate their designed product and their contributions to collaborations and teamwork to complete the project.

Outcome 2: On completion of this unit the student should be able to work collaboratively and in teams to trial and test, evaluate and use materials, tools and processes to determine their chosen product concept and produce a product through implementing a scheduled production plan, as well as reflect on and make suggestions for future improvements when working collaboratively and as a team.

Assessment

For this unit students are required to demonstrate two outcomes. As a set, these outcomes encompass the areas of study in the unit. Assessment tasks for this unit will comprise of:

- a multimodal record of evidence of research, development and conceptualisation of products as well as a reflection on collaboration, teamwork and ways to improve in the future
- practical work: a demonstration of graphical and physical product concepts including prototyping and making final proof of concept along with a finished product.

Please Note:

- Students must satisfactorily complete Unit 1 &/or 2 Product Design and Technology before undertaking Units 3 & 4.

Product Design and Technology (Textiles)

Unit 2: Positive impacts for end users

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.

Areas of Study

1 Opportunities for positive impacts for end users

In this unit, students research designs across a range of design specialisations, and critique products to make judgments about their success (or failure) using the factors that influence product design. Products selected for research should address inclusion through belonging, access, usability and/or equity considerations. Students also analyse and evaluate future market opportunities or needs for products.

Outcome 1: *On completion of this outcome the student should be able to investigate and critique products using the factors that influence design, to make judgments about the success or failure of the products to support positive impacts for end users.*

2 Designing for positive impacts for end users

In this area of study, students respond to a need or opportunity to develop a profile of an end user(s), and they design and make an inclusive product that improves belonging, access, usability and/or equity for the end user(s). Students explore needs and/or opportunities of end users, which may involve adjustments and/or variations for specific needs or opportunities, to create positive impacts and minimise harm by supporting inclusion through increased belonging, access, usability and/or equity.

Outcome 2: *On completion of this unit the student should be able to design and make an inclusive product that responds to a need or opportunity of an end user(s) that addresses positive impacts in relation to belonging, access, usability and/or equity.*

3 Cultural influences on design

In this area of study, students look at how culture influences products, and how a designer should engage with culture as they develop a profile of an end user(s) when designing products to address their needs and/or opportunities. Specifically, students look through a cultural lens to extend their thinking about the needs and opportunities of end users, going beyond physical requirements.

Outcome 3: *On completion of this unit the student should be able to research and discuss how designers and end users are influenced by culture.*

Assessment

For this unit students are required to demonstrate three outcomes. As a set these outcomes encompass the areas of study in the unit. Assessment tasks may include:

- multimodal record of evidence of research, development and conceptualisation of products addressing a need or opportunity related to positive impacts for the end user(s)
- practical work: demonstration of graphical and physical product concepts including prototyping and making final proof of concept along with the finished product addressing a need or opportunity related to positive impacts for the end user(s)
- case study analysis or research inquiry exploring the influence of culture in product design.

Please Note:
- Students must satisfactorily complete Unit 1 &/or 2 Product Design and Technology before undertaking Units 3 & 4.

Product Design and Technology (Textiles)

Unit 3: Ethical product design and development

Students plan to develop an ethical product through a problem-based design approach, starting with a need or opportunity and using a design process and testing to problem-solve. The design brief, product concepts and the final proof of concept are developed through the Double Diamond design approach, using design thinking. Students undertake the role of a designer to generate, analyse and critique product concepts, with the chosen product concept becoming the final proof of concept. Throughout a design process, the product concepts and the final proof of concept are evaluated using relevant factors that influence product design and shaped using design thinking.

Areas of Study

1 Influence on design, development and production of products

Students explore examples of product design and innovation and evaluate their impact on sustainability and other ethical considerations. They also examine how companies react to market needs and/or opportunities and technological advancements. Students investigate the use of computer modelling, computer-aided design (CAD) and computer-aided manufacture (CAM), and new and emerging technologies including tools and/or materials used in industry. In the context of industrial manufacturing, they develop an understanding of a range of issues relating to innovation, research and development, and how designing ethically positively impacts and creates market needs and/or opportunities.

Outcome 1: *On completion of this unit the student should be able to critique examples of ethical product design and innovation within industrial settings.*

2 Investigating opportunities for ethical design and production

Students work in the first diamond of the Double Diamond design approach to identify a purpose for their product by conducting research, evaluating existing products, and investigating and defining the needs or opportunities of an end user(s). In doing so, they acknowledge and navigate IP and other legal responsibilities. Students collect and present data, demonstrating ethical research practices, including privacy. Students propose graphical product concepts to address the design brief. They draw visualisations and gather feedback to refine design options and working drawings to generate and design graphical product concepts. They record the process in their multimodal record of evidence.

Outcome 2: *On completion of this unit the student should be able to investigate a need or opportunity that relates to ethics and formulate a design brief, conduct research to analyse current market needs or opportunities and propose, evaluate and critique graphical product concepts.*

3 Developing a final proof of concept for ethical production

In this area of study, students engage with the second diamond of the Double Diamond design approach. Students generate and design physical product concepts based on the graphical product concepts developed in Outcome 2. The chosen product concept becomes the final proof of concept, which in turn, becomes the product that the students make. Students develop a scheduled production plan for making their product and evaluating it; then they make judgments and recommendations about ethical considerations regarding use of materials, tools and processes, and they consider resources such as time and costs.

Outcome 3: *On completion of this unit the student should be able to evaluate product concepts related to ethical design, synthesise and apply feedback to justify a final proof of concept, and plan to make the product safely.*

Assessment

The student's level of achievement in Unit 3 will be determined by School-assessed Coursework (SAC) and a School-assessed Task (SAT) (see Unit 4 description).

Outcome 1 (SAC) task may include: case study, oral presentation or research inquiry.

Please Note:

Students must satisfactorily complete Units 1 or 2 Product Design and Technology (Textiles) before undertaking Units 3 & 4.

Product Design and Technology (Textiles)

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.

Areas of Study

1   Managing production for ethical designs

In this area of study, students focus on working technologically to implement the scheduled production plan and make a product that relates to ethics in order to address the needs or opportunities of an end user(s) as described in Unit 3. Students continue to use materials, tools and processes safely and manage the risks involved. They record and monitor their implementation of the scheduled production plan and document decisions and modifications made throughout this process.

Outcome 1: On completion of this unit the student should be able to implement a scheduled production plan, using a range of materials, tools and processes and managing time and other resources effectively and efficiently to safely make the product designed in Unit 3.

2   Evaluation and speculative design

In this area of study, students have the opportunity to gather feedback from end users and use criteria to evaluate their product and a range of other existing products. Students follow ethical research practices and use digital technologies that facilitate efficiencies in the collection of data. Students interpret and use these results and other feedback to suggest and justify possible product enhancements and/or improvements. In addition, students explore speculative design thinking and examine how designers can be future-focused, innovative and entrepreneurial in the adaptation and renewal of products, by using research and development to integrate new and emerging technologies and address market trends.

Outcome 2: On completion of this unit the student should be able to synthesise data to evaluate a range of products, including making judgments about the success of each product, and discuss product designs in regard to entrepreneurial activity, innovation and sustainability and/or other ethical considerations.

Assessment

The student's level of achievement in Unit 4 will be determined by the following:

SAC - Outcome 2	SAT – Unit 3 Outcome 2 & 3, Unit 4 Outcome 1
Any one or a combination of: • data analysis • oral presentation using multimedia: face-to-face or recorded as a video or podcast • product analysis • research inquiry	Multimodal record of evidence that records: • formulation of a design brief and gathering evidence of research that explores market needs or opportunities • generation, design and evaluation of product concepts • justification of final proof of concept • scheduled production plan, including progress during the production process and decisions and modifications made to the scheduled production plan. AND Practical work that demonstrates the use of technologies to develop physical product concepts including prototypes and finished product management of time and other resources.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	10%
Unit 4 School Assessed Coursework	10%
School Assessed Task (SAT)	50%
Unit 3 & 4 Examination	30%

Psychology

Unit 1: How are behaviour and mental processes shaped?

In this unit students investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. Students explore brain plasticity and the influence that brain damage may have on a person's psychological functioning. Students examine the contribution that classical and contemporary studies have made to an understanding of the human brain and its functions, and to the development of different psychological models and theories used to predict and explain the development of thoughts, feelings and behaviours.

Areas of Study

1 What influences psychological development?

In this area of study students explore how these factors influence different aspects of a person's psychological development, recognising that individuals are not fixed from birth but instead can grow and change psychologically across their lives. They consider the interactive influences of hereditary & environmental factors on a person's psychological development. Students explore concepts of normality and neurotypicality and consider how typical or atypical psychological development in individuals may be culturally defined, classified and categorised. They consider how normal cognitive variations within society can be illustrated through consideration of neurodiversity, investigating selected developmental differences. The role of mental health workers, psychologists, psychiatrists and organisations in supporting psychological development and the diagnosis and management of atypical behaviour is considered.

Outcome 1: On completion of this unit the student should be able to discuss complexity of psychological development over the life span and evaluate ways of understanding and representing psychological development.

2 How are mental processes and behaviour influenced by the brain?

In this area of study students explore how the understanding of brain structure and function has changed over time, considering the influence of different approaches and contributions to understanding the role of the brain. They develop their understanding of how the brain enables humans to interact with the external world around them and analyse the interactions between different areas of the brain that enable the processing of complex sensory information, the initiation of voluntary movements, language, decision-making, and the regulation of emotions.

Students consider how the brain changes with age and experience, and subsequently how mental functions adapt. Students explore neuroplasticity as the result of experience and brain trauma. They investigate ways to maintain brain functioning and an opportunity is provided to investigate the impact of acquired brain injuries (ABIs), to consolidate students' understanding of brain functioning. Chronic traumatic encephalopathy (CTE) is also considered as area of contemporary research into progressive and fatal brain disease.

Outcome 2: On completion of this unit the student should be able to analyse the role of the brain in mental processes and behaviour and evaluate how brain plasticity and brain injury can change biopsychosocial functioning.

3 How does contemporary psychology conduct and validate psychological research?

In this area of study students investigate how science is used to explore and validate contemporary psychological research questions. Making connections between the research of others and their own learning enables students to explore and compare responses to contemporary psychological concepts as well as engage in the analysis and evaluation of methodologies, methods and conclusions of research studies. Students select and evaluate a recent discovery, finding, innovation, issue, advance or case study linked to the knowledge and skills developed in previous area of studies. Students may develop a research question individually or in conjunction with their class or a group of students.

Outcome 3: On completion of this unit the student should be able to identify, analyse and evaluate the evidence available to answer a research question relating to contemporary psychology.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Refer to Unit 2 for example assessment tasks.

Psychology

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

In this unit 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 investigate how perception of stimuli enables a person to interact with the world around them and how their perception of stimuli can be distorted. A scientific investigation is undertaken in Area of Study 3.

Areas of Study

1   How are people influenced to behave in particular ways?

In this area of study students explore the interplay of psychological and social factors that shape the identity and behaviour of individuals and groups. Students explore how cognitive biases may assist with the avoidance of cognitive dissonance & consider the important role that heuristics have in problem-solving and decision-making. Students are given an opportunity to explore the psychological impact of stereotypes, prejudice, discrimination and stigma on individuals and groups in Australian society, including on Aboriginal and Torres Strait Islander peoples & strategies to reduce these. They explore the positive and negative influences of different media sources on an individual's mental wellbeing and group behaviour.

Outcome 1: *On completion of this unit the student should be able to analyse how social cognition influences individuals to behave in specific ways and evaluate factors that influence individual and group behaviour.*

2   What influences a person's perception of the world?

In this area of study students explore the role of attention in making sense of the world around them and they consider two aspects of human perception – vision and taste – and consider how perception is influence by cultural norms and historical experiences. Students explore the influence of biological, psychological and social factors on visual and gustatory perception. Perceptual distortions of vision and taste are explored when looking at the fallibility of perceptual systems. Aboriginal and Torres Strait Islander experiences of sensory connection to Country and/or Place, ancestors, spirituality and songlines may also be considered.

Outcome 2: *On completion of this unit the student should be able to explain the roles of attention and perception, compare gustatory and visual perception and analyse factors that may lead to perceptual distortions.*

3   How do scientific investigations develop understanding of influences on perception and behaviour?

In this area of study students adapt or design and then conduct a scientific investigation into the internal or external influences on perception and/or behaviour.

Outcome 3: *On completion of this unit the student should be able to adapt or design and then conduct a scientific investigation related to internal and external influences on perception and/or behaviour and draw an evidence-based conclusion from generated primary data.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks for Outcome 1 and 2 over both Unit 1 & 2 Units may include:

- analysis & evaluation of an experiment, case study, model
- review or response to a psychological issue or ethical dilemma
- problem-solving involving psychological concepts, skills and/or issues
- a data analysis or report of an investigation
- media analysis of one or more contemporary media texts
- reflective annotations

Assessment task for Unit 2 Outcome 3 is a report of a student-adapted or student-designed scientific investigation.

Psychology

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

In this unit 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. A student-designed scientific investigation involving the generation of primary data related to mental processes and psychological functioning is undertaken.

Areas of Study

1   How does the nervous system enable psychological functioning?

In this area of study students explore the role of different branches of the nervous system in enabling a person to integrate, coordinate and respond to internal and external sensory stimuli. Students apply their understanding of neurotransmitters in the transmission of neural information across a neural synapse to produce excitatory and inhibitory effects and explore the effect that neuromodulators have on brain activity. The interaction of gut microbiota with stress and the nervous system in the control of processes and behaviour is also explored.

Students evaluate the ways in which stress can affect mental wellbeing, by considering stress as a psychobiological process. They compare the explanatory power of different models that explain stress as well as exploring strategies for coping with stress and improving mental wellbeing.

Outcome 1: On completion of this unit the student should be able to analyse how the functioning of the human nervous system enables a person to interact with the external world and evaluate the different ways in which stress can affect psychobiological functioning.

2   How do people learn and remember?

Learning and memory are interdependent processes that demonstrate the acquisition of skills and knowledge through experience across the life span. In this area of study students evaluate models to explain learning and apply their knowledge of learning to a range of everyday experiences and contemporary social issues.

Students explore memory as the process by which knowledge is encoded, stored and later retrieved, as illustrated by Richard Atkinson and Richard Shiffrin's multi-store model of memory, including how information passes through distinct memory stores in order for it to be stored relatively permanently. Students explore the interconnectedness of brain regions in storing explicit and implicit memories and the role of semantic and episodic memory in cognition. They consider the use of mnemonics to increase the encoding, storage and retrieval of information and develop an understanding of the contribution of Aboriginal and Torres Strait Islander knowledges and perspectives in understanding memory and learning.

Outcome 2: On completion of this unit the student should be able to apply different approaches to explain learning to familiar and novel contexts and discuss memory as a psychobiological process.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks for Outcome 1 and 2 for Unit 3 and Unit 4 will include:

- Analysis and evaluation of at least one psychological case study, experiment, model or simulation
- Analysis and evaluation of generated data
- Analysis and comparison of two or more contemporary media texts
- Comparison and evaluation of psychological concepts, methodologies and methods, and findings from three student practical activities.

Psychology

Unit 4: How is mental wellbeing supported and maintained?

In this unit students explore the demand for sleep and the influences of sleep on mental wellbeing. They consider the biological mechanisms that regulate sleep and study the impact that changes to a person's sleep-wake cycle and sleep hygiene have on a person's psychological functioning.

Students consider ways in which mental wellbeing may be defined and conceptualised, including social and emotional wellbeing (SEWB) as a multidimensional and holistic framework to wellbeing. A student-designed scientific investigation involving the generation of primary data related to mental processes and mental wellbeing is undertaken.

Areas of Study

1   How does sleep affect mental processes and behaviour?

In this area of study students focus on sleep as an example of an altered state of consciousness and the different demands humans have for sleep across the life span. They compare REM and NREM sleep as examples of naturally occurring altered states of consciousness and investigate the biological mechanisms of the sleep-wake cycle in terms of the timing of sleep.

Students analyse the effects of sleep deprivation on psychological functioning, including emotional, behavioural and cognitive functioning. They compare the effects of total sleep deprivation, examine circadian rhythm disorders and suggest ways to improve the sleep-wake cycle and mental wellbeing.

Outcome 1: On completion of this unit the student should be able to analyse the demand for sleep and evaluate the effects of sleep disruption on a person's psychological functioning.

2   What influences mental wellbeing?

In this area of study students explore mental wellbeing in terms of social and emotional wellbeing, levels of functioning, and resilience to cope with and manage change and uncertainty. Students investigate the concept of mental wellbeing as a continuum, recognising that an individual's mental wellbeing is influenced by the interaction of internal and external factors and fluctuates over time. They recognise that for Aboriginal and Torres Strait Islander people mental wellbeing is one element of a multidimensional and holistic view of wellbeing. Students explore protective factors that contribute to an individual's mental wellbeing from a biopsychosocial perspective and the importance of cultural determinants to the wellbeing of Aboriginal and Torres Strait Islander peoples.

Outcome 2: On completion of this unit the student should be able to discuss the concept of mental wellbeing, apply a biopsychosocial approach to explain the development and management of specific phobia, and discuss protective factors that contribute to the maintenance of mental wellbeing.

3   How is scientific inquiry used to investigate mental processes and psychological functioning?

Students undertake a student-designed scientific investigation which involves the generation of primary data relating to mental processes and psychological functioning which draws on knowledge and related key science skills developed. When undertaking the investigation students are required to apply the key science skills.

Outcome 3: On completion of this unit the student should be able to design and conduct a scientific investigation related to mental processes and psychological functioning, and present an aim, methodology and method, results, discussion and conclusion in a scientific poster.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Please refer to Unit 3 for possible assessments for Outcome 1 & 2 within Unit 4.
The assessment task for Unit 4 Outcome 3 is a report of the design, analysis & findings of a scientific investigation.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
Unit 4 School Assessed Coursework	30%
Unit 3 & 4 Examination	50%

Religious Education – School Based Units

In Year 11 and 12 students can choose School Based Religious Education Units or, if they meet the pre-requisites, VCE based Religious Education Units. Students in Year 11 and 12 selecting the School Based Pathway (non-VCE) can choose **one** of the following units to study in Year 11 and a different unit of study in Year 12. Each unit will have two assessment tasks and can only be selected once.

Option 1: The Divine Dilemma – History or Hoax?

In this unit students will research, analyse, and describe a range of perspectives on the identity and mission of Jesus of Nazareth. Exploring the biblical stories of Jesus' virgin birth, His miracles of healing and over nature, and His death and resurrection, students will challenge, and question long held beliefs such as: virgin birth or convenient way to hide an affair? Did Jesus walk on water or was he in the shallow end? Did Jesus rise from the dead or was His body stolen? Did Jesus even exist?

Students will also consider the rapid growth and expansion of Christianity from its poor and simple beginnings in the foothills of Galilee to becoming a financially prosperous world religion.

This unit provides students with an opportunity to explore, express and extend their personal understandings, beliefs, and questions about Jesus Christ.

This unit will address the following essential questions:
- What do we know about Jesus of Nazareth?
- What does it mean to say that Jesus was a man?
- What does it mean to say Jesus was the Son of God?
- What relevance does Jesus have to my life?

Option 2: Are Feelings the Only Guide to Morality

In this unit, students will consider their own morality and that of others. They will consider the factors that influence morality and how it influences their decision-making. This will involve the study of ethics: identifying arguments and analysing the reasoning, and other influences behind ethical decision-making. Ethical theories, concepts and principles will be explored from a range of sources, including philosophical, religious, legal and social.

This unit will address the following essential questions:
- What is morality and how does it differ from ethics?
- What factors contribute to my and others' ethical decision-making?
- What does the Catholic Church teach regarding ethics and morality?
- What contemporary issues require an ethical response?

Option 3: Never See a Need

In this unit students will consider how the words and work of St Mary of the Cross MacKillop inspire us to 'Never see a need without doing something about it.' They will explore causative factors that lead to injustice in our world and the role Catholic Social Teaching plays in the call to action. Students will come to understand the work of the charity organisation 'Mary MacKillop Today' and using the 'See, Judge, Act, Review' approach to social injustice, plan and implement a fundraising activity to support the work of 'Mary MacKillop Today.'

This unit will address the following essential questions:
- How do the words and work of St Mary of the Cross MacKillop inspire us and others?
- What are the principles of Catholic Social Teaching and their biblical foundation?
- What is justice? What is social justice and social injustice? What do these look like in our world?
- What actions can we take to alleviate or eliminate injustice?

Option 4: Pushed to the Margins: A response to Social Injustice

In this unit students will investigate justice issues facing our world today: their causes, the associated problems and their impact on humankind and human dignity. Students will explore Church teachings and scripture relevant to these issues and explore practical Christian responses. The concept of service will be examined in terms of our individual and collective responsibility and the Christian call to think globally and act locally.

This unit will address the following essential questions:
- What is justice? What is social justice/injustice? What do each of these look like in our world?
- How are we to respond to social injustice? What scripture and Church documents ground and guide a Christian response?
- What difference can one person make – how am I to act as a global citizen?

Option 5: Mindful or Mind Full? Be still and know that I AM God

In this unit students will explore ways to deepen and nurture their relationship with God using mindfulness and meditative techniques. They will explore the ways that art, literature, film, poetry, and music have been used throughout history to cultivate stillness and connect with the Divine presence. They will explore different religious and spiritual traditions as a means of exploring, responding to and touching the presence of God in human experience.

This unit will address the following essential questions:
- How has the human quest to encounter the mystery of God who is both within and beyond, been expressed throughout history, and in the present?
- How can we express the sacred in our own lives?
- How can we use 21st century tools to experience the sacred and scripture in prayer?
- How do I use mindfulness and meditative techniques and technologies to slow down and cultivate inner silence and stillness?

Option 6: Breaking Chains: A Journey Through Modern Slavery

In this unit students will explore the many forms of human trafficking and reflect on the significant human impact of this issue. As a Catholic community we are called to action to eradicate slavery from our world. Human trafficking takes on many forms, has many faces and is one of the world's fastest growing crimes. Australia is a destination for trafficked people who are used for a variety of purposes against their will. While the number of those trafficked annually is understood to be in the millions, each person is worthy of dignity and has a story to tell. This issue is about people, not numbers. This unit invites a transformation in attitude and ultimately students are encouraged to take action to address some of the factors that lead to Human trafficking.

This unit will address the following essential questions:
- What does slavery in the modern world look like? Who is affected and how?
- How are we to respond to the issues of slavery in the modern world?
- What scripture and Church documents ground and guide a Christian response?
- What difference can one person make to slavery in the 21st century?

Religion and Society

Unit 1: The role of religion in society

In this unit students explore the spiritual origins of religion and understand its role in the development of society, identifying the nature and purpose of religion over time. They also focus on the role of spiritualities, religious traditions and religious denominations in shaping personal and group identity. The unit provides an opportunity for students to understand the often-complex relationships that exist between individuals, groups, new ideas, truth narratives, spiritualities and religious traditions broadly and in the Australian society in which they live.

Areas of Study

1   The nature and purpose of religion

In this area of study students are introduced to the nature and purpose of religion in general, exploring the role of religion in shaping and giving meaning to individuals and communities. Students examine the aspects of religion in general, and then apply the aspects of religion as a framework to further examine spiritualities, religious traditions and religious denominations. They investigate how the aspects may vary between spiritualities, religious traditions and religious denominations.

Outcome 1: *On completion of this unit the student should be able to discuss the nature and purpose of religion and examine the aspects of religion as they apply to selected examples.*

2   Religion through the ages

In this area of study students investigate how society and religion influence each other. Over time, spiritualities, religious traditions and religious denominations have encountered challenges from philosophical and spiritual movements, political regimes, legal structures, scientific ideas, colonisation, national myths, globalisation, secularisation, technological developments and historical events. These encounters have led to some spiritualities, religious traditions and religious denominations being abandoned; other spiritualities, religious traditions and religious denominations have adapted and been resilient or were re-established in a different form.

Outcome 2: *On completion of this unit the student should be able to discuss the changing roles of religion and the interrelationship between religion and society over time.*

3   Religion in Australia

In this area of study students consider spiritualities and religion in Australia, past and present, and the influences on Australian religious composition, from colonisation, migration and secularisation. They explore how the communities and later institutions of these spiritualities, religious traditions and religious denominations perceived themselves and expressed their collective identity in Australia. Students also examine the influence of religion on the personal identity of members. They explore the influence of spiritualities, religious traditions and religious denominations on the development of social infrastructure in Australia and consider factors such as the laws governing the provision of education and welfare.

Outcome 3: *On completion of this unit the student should be able to discuss the presence of religion in Australia, past and present.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which may include:

- Reports
- Identification exercises
- Essays
- Annotated charts
- Debates
- Analytical exercises
- Written exercises

Religion and Society

Unit 2: Religion and ethics

In this unit students study in detail various methods of ethical decision-making in at least two religious traditions and their related philosophical traditions. They explore ethical issues in societies where multiple worldviews coexist, in the light of these investigations.

Areas of Study

1   Ethical decision-making and moral judgment

In this area of study students are introduced to the nature of ethical decision-making in societies where multiple worldviews coexist. Methods of ethical decision-making such as 'ought' ethics, virtue ethics, character ethics and outcome ethics are discussed, as well as theories leading to and derived from these methods.

Outcome 1: *On completion of this unit the student should be able to able to explain the variety of influences on ethical decision making and moral judgment in societies where multiple worldviews coexist.*

2   Religion and ethics

In this area of study students explore religious ethical perspectives and other influences on the formation of moral judgments of at least two spiritualities, religious traditions and/or religious denominations. They also explore how philosophical ideas and religion have influenced each other's understanding of ethics.

Outcome 2: *On completion of this unit the student should be able to analyse how ethical perspectives and moral judgments are formed within at least two spiritualities, religious traditions and/or religious denominations, in societies in which multiple worldviews coexist.*

3   Ethical issues in society

In this area of study students build on the knowledge explored in Areas of Study 1 and 2. Focusing on two or more ethical issues, students apply this knowledge to an examination of debates about ethical issues conducted in the public arena.

Outcome 3: *On completion of this unit the student should be able to examine two or more debates on ethical issues in societies in which multiple worldviews coexist, and to which spiritualities, religious traditions and religious denominations contribute.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which may include:

- Reports
- Identification exercises
- Essays
- Annotated charts
- Debates
- Analytical exercises
- Written exercises
- Role-plays.

Religion and Society

Unit 3: The search for meaning

In this unit students study the purposes of religion generally and then consider the religious beliefs developed by a religious tradition or religious denomination in response to the big questions of life. Students study how particular beliefs within a religious tradition or religious denomination may be expressed through the other aspects of religion and explore how this is intended to foster meaning for adherents. Students then consider the interaction between significant life experiences and religion.

Areas of Study

1   Responding to the search for meaning

In this area of study students are introduced to the nature and purpose of religion in the human search for meaning. Students are introduced to the purpose of religion in societies in which multiple worldviews coexist through the study in detail of a range of beliefs of one religious tradition or religious denomination. Religious beliefs are ideas that answer the big questions of life according to a religious worldview. In this area of study students relate the beliefs to certain categories and explore the connection of the beliefs to each other.

Outcome 1: *On completion of this unit the student should be able to analyse the nature and purpose of religion and religious beliefs.*

2   Expressing meaning

In this area of study students build on the knowledge of religious beliefs from Area of Study 1. Beliefs are intended to achieve their full meaning when they are expressed through other aspects of religion. Students study how the meaning of beliefs are expressed through other aspects of religion. They consider the roles of the aspects of religion in general. Students then explore at least two beliefs studied in Area of Study 1, as they are expressed in other aspects of the selected religious tradition or religious denomination. They examine how the selected beliefs and their expression in each of the other aspects are intended by the selected religious tradition or religious denomination to support meaning.

Outcome 2: *On completion of this unit the student should be able to examine how beliefs and their expression through other aspects of religion are intended to respond to the search for meaning.*

3   Significant life experience, religious belief and faith

In this area of study students focus on the interplay between religion and significant life experiences of members of religious traditions and religious denominations. They then undertake a detailed study of one particular significant life experience of a member of one selected religious tradition or religious denomination. It has to be an experience that informed, reinforced or changed the person's faith in and understanding of beliefs and their engagement with the expression of those beliefs.

Outcome 3: *On completion of this unit the student should be able to analyse the interplay between religious beliefs and their expression through related aspects of religion and significant life experiences.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which may include:

- Reports
- Case studies
- Essays
- Structured questions
- Analytical exercises
- Extended responses.

Religion and Society

Unit 4: Religion, challenge and change

In this unit students explore challenges for religious traditions or religious denominations generally over time and then undertake a study of challenge and change for a religious tradition or religious denomination.

Areas of Study

1   Challenge and response

In this area of study students investigate how and why religious traditions and religious denominations have taken steps from their inception to the present to respond to challenges in the categories of theology, ethics and continued existence. Religious traditions or their denominations are in a continual process of engagement and negotiation with challenges that may influence them to adopt various stances for, against or of indifference to the challenge. Students consider how some aspects of one religious tradition or religious denomination are more likely to be involved when taking a stance, such as distinctive beliefs, rituals, religious practices, the interpretation of texts, the application of ethical principles, the nature and role of authority, and the manner of participation within the social structure of a religious tradition or religious denomination.

Outcome 1: *On completion of this unit the student should be able to analyse and compare stances and supporting responses taken by religious traditions or religious denominations as they are challenged.*

2   Interaction of religion and society

Students examine in detail one significant challenge that has engaged or continues to engage a religious tradition or religious denomination and society. The selected challenge may be related to a particular time in the past or present of the religious tradition or religious denomination. Students investigate the broader context leading to the challenge, the sources of the challenge, relevant aspects of religion, and the stances and supporting responses adopted by the religious tradition or religious denomination to the challenge. They also examine the influence of the responses on the religious tradition or religious denomination and, where appropriate, on wider society.

Outcome 2: *On completion of this unit the student should be able to discuss the interactions within a religious tradition or religious denomination and between a religious tradition or religious denomination and wider society in relation to a significant challenge, and evaluate the influence of the stances and responses on these interactions.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which can include:

- Reports
- Case studies
- Essays
- Structured questions
- Analytical exercises
- Extended responses.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Specialist Mathematics

Units 1 & 2

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

Units 1&2, taken in conjunction, provide a comprehensive preparation for Specialist Mathematics Units 3&4.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1   Algebra, number and structure

This area of study covers the development of formal mathematical notation, definition, reasoning and proof applied to number systems. Students will also cover the arithmetic and algebra of complex numbers.

2   Discrete Mathematics

This area of study covers sequences, series, and first-order linear difference equations, and combinatorics.

3   Space and measurement

This area of study covers trigonometry and identities, transformations of the plane, vectors and related applications.

4   Functions, relations and graphs

This area of study covers an introduction to partial fractions, reciprocal and inverse circular functions, locus definitions of various relations, and the cartesian, parametric and polar forms of these relations.

5   Data analysis, probability and statistics

This area of study covers the study of linear combinations of random variables and the distribution of sample means of a population, with the use of technology to explore variability of sample means.

The following Outcomes encompass all the selected areas for each Unit:

Outcome 1: *On completion of this unit, the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.*

Outcome 2: *On completion of this unit, the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.*

Outcome 3: *On completion of this unit, the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks include:
- Mathematical Investigation Task
- Tests
- Analysis Task
- Examination

Please Note:

Students must satisfactorily complete:
- Units 1&2 Specialist Mathematics and Mathematical Methods before undertaking Units 3&4
- Unit 3&4 Mathematical Methods whilst completing Specialist Mathematics Units 3&4

Specialist Mathematics

Units 3 & 4

Specialist Mathematics must be taken in conjunction with Mathematical Methods Units 3&4. Students are expected to be able to apply techniques, routines and processes involving rational, real and complex arithmetic, sets, lists, tables and vectors, diagrams and geometric constructions, algorithms, algebraic manipulation, equations, graphs, differentiation, anti-differentiation, integration and inference to the related to the area of study, as applicable, both with and without the use of technology.

Please Note: All students are expected to have a TI-Nspire CAS calculator.

Areas of Study

1   Discrete mathematics

In this area of study students will cover the development of mathematical argument and proof. The concepts, skills and processes from this area of study will be applied to other areas of study.

2   Functions, relations and graphs

Throughout this area of study students will cover rational functions and other simple quotient functions, sketching their graphs and explore their graphical properties.

3   Algebra, number and structure

Students will explore the algebra of complex numbers, including polar form, polynomials over the complex field and an informal treatment of the fundamental theorem of algebra.

4   Calculus

This area of study explores advanced calculus techniques for analytical and numerical differentiation and integration of a broad range of functions and their application in a variety of theoretical and practical situations.

5   Space and measurement

This area covers the arithmetic and algebra of vectors.

6   Data analysis, probability and statistics

Throughout this area of study students study linear combinations of random variables, introductory statistical interference, confidence intervals, and related hypothesis testing.

The following Outcomes encompass all of the selected areas for each Unit:

Outcome 1: On completion of this unit, the student should be able to define and explain key concepts as specified in the content from the areas of study and apply a range of related mathematical routines and procedures.

Outcome 2: On completion of this unit, the student should be able to apply mathematical processes in non-routine contexts, including situations with some open-ended aspects requiring investigative, modelling or problem-solving techniques or approaches, and analyse and discuss these applications of mathematics.

Outcome 3: On completion of this unit, the student should be able to apply computational thinking and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring investigative, modelling or problem-solving techniques or approaches.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Application Tasks
- Modelling / Problem-Solving Tasks
- Examinations

Contributions to Final Assessment	
Unit 3 & 4 School Assessed Coursework	40%
Unit 3 & 4 Examination 1 – Technology Free Exam	20%
Unit 3 & 4 Examination 2	40%

Texts and Traditions

Unit 1: Texts in Traditions

In this unit students examine the place of sacred texts and their literary forms within a religious tradition. Students explore the importance of sacred texts as the source of a tradition and learn how to interpret and describe their meaning for the earlier and continuing tradition. This unit introduces students to basic methods of exegesis to bring about a deeper awareness of how sacred texts came about, and the meaning of those texts for the religious tradition. This unit also explores how sacred texts have been used by people both within and beyond the religious tradition to bring meaning to issues or ideas in a new cultural setting.

Areas of Study

1 The importance of sacred texts to the tradition

In this area of study students focus on how texts grew out of a historical setting and how those texts came to be understood as being sacred.

Outcome 1: *On completion of this unit the student should understand the history of the formation of the sacred text and be able to recognise and explain the development and acceptance of the text into the religious tradition.*

2 The exegesis of text

In this area of study students undertake textual analysis, which involves an understanding of the sociocultural, political, religious and historical settings of these ancient sacred texts. This gives students an insight into the way the original community might have understood the text.

Outcome 2: *On completion of this unit the student should be able to apply basic exegetical methods to explore the texts within their sociocultural and historical contexts.*

3 Sacred texts and later traditions

In this area of study students focus on interpretations of selected sacred texts at points later than the original founding religious tradition. These interpretations can issue from sources that might carry authority through scholarship, an instituted teaching office, charismatic leadership, or artistic insight. These later interpretations may be contemporary or from an earlier point in history.

Outcome 3: *On completion of this unit the student should be able to analyse a range of understandings and interpretations of sacred texts as understood or expressed by the later religious tradition.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which may include:

- Summaries
- Textual commentaries
- Oral presentations
- Exegetical exercises
- Essays
- Short reports
- Comparative tables
- Short-answer questions

Texts and Traditions

Unit 2: Texts in Society

In this unit students study sacred texts as a means of investigating social attitudes on issues such as social structures, justice, authority, the environment, racism, gender and others. Students consider the social context within which the sacred texts were produced, the conditions under which they are currently read, the reasons for reading them, and the types of authority attributed to them by religious traditions and society in general. They also look at the ways in which the texts shape, and are shaped by, the content of the message contained in them. Students compare how sacred texts from different religious traditions address these social issues.

Areas of Study

1   Sacred texts in the past

In this area of study students investigate the general background to selected texts, using historical research skills and scholarly works to identify people, places and events relevant to the origins of the sacred texts.

Outcome 1: *On completion of this unit the student should be able to understand the origin and development of selected texts that express a religious tradition's relationship to its society.*

2   Sacred texts today

In this area of study students focus on how religious traditions use their sacred texts when confronted with particular social issues.

Outcome 2: *On completion of this unit the student should be able to understand the type of authority that a religious tradition currently attributes to its sacred texts, how these texts affect the current religious tradition's understanding of its relationship to society, and the effects of the sacred text upon society today.*

3   Comparing religious traditions

In this area of study students compare religious traditions. Students explore the similarities and differences between the ways religious traditions approach and depict common social issues in their sacred texts. Examples of common social issues are social structures, justice, authority, the environment, racism, gender and others.

Outcome 3: *On completion of this unit the student should be able to compare the similarities and differences between the ways sacred texts of two or more religious traditions present a particular social issue.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which may include:

- Summaries
- Textual commentaries
- Oral presentations
- Exegetical exercises
- Essays
- Short reports
- Comparative tables
- Short-answer questions.

Texts and Traditions

Unit 3: Texts and the Early Tradition

In this unit students explore the society and culture from which the religious tradition being studied was formed. They develop an understanding of the historical background that influenced the texts themselves. Students develop an understanding of how the chosen set text is a response to particular social, cultural, religious, political and historical needs and events. They explore the formation of the text itself, the intended audience of that text, and the message or teaching found within the text.

Areas of Study

1 The background of the tradition

In this area of study students undertake a sociocultural and historical study of a religious tradition. They examine the origin and early development of the selected religious tradition, focusing on people, places and events, and social, cultural, religious and political conditions and institutions important to the development of the religious tradition.

Outcome 1: *On completion of this unit the student should be able to identify and explain sociocultural conditions and historical contexts that influenced the early development of the religious tradition.*

2 Audience, purposes and literary aspects of the set texts

In this area of study students develop knowledge of the set text in terms of its major purposes and literary form, structure and techniques. Within literary criticism, students examine the formation of texts as well as the texts' intended audiences.

Outcome 2: *On completion of this unit the student should be able to discuss the major purposes of the set text, and analyse literary structure and other aspects related to the formation of the set text, including knowledge of the original audience.*

3 Interpreting texts

In this area of study students develop their understanding and application of at least two exegetical methods, including sociocultural and literary criticism. In exegetical study, students analyse a text in the light of scholarship and their growing knowledge of the background to the text. This analysis then leads to a synthesis of ideas regarding the purpose, meaning and teachings of any particular text within its original setting.

Outcome 3: *On completion of this unit the student should be able to understand the nature of exegetical methods and apply them to develop an interpretation of some of the passages for special study.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which can include:

- Summaries
- Textual commentaries
- Oral presentations
- Exegetical exercises
- Essays
- Short reports
- Comparative tables
- Short-answer questions

Texts and Traditions

Unit 4: Texts and their Teachings

In this unit students study a significant theme contained in the set text and consider the interpretation of the text in light of the theme.

Areas of Study

1 Interpreting Texts

In this area of study students further develop the knowledge and skills required to write exegeses on passages from the set texts begun in Unit 3 Area of Study 3 (Interpreting texts). As the course progresses, students produce exegetical exercises that demonstrate developing skills. Students should be able to write exegeses for all the passages for special study, drawing on the key knowledge and key skills for this outcome.

Outcome 1: *On completion of this unit the student should be able to apply exegetical methods to develop an interpretation of all the passages for special study.*

2 Religious themes and their teaching purpose

In this area of study students will further investigate themes that are published annually by the VCAA, and come to an understanding of how these themes develop in the set text and how these themes would have created meaning for the original audience.

Outcome 2: *On completion of this unit the student should be able to discuss themes arising from the passages for special study and analyse their social, cultural, religious and historical context, and the importance of the themes to the original audience.*

3 Themes in the later tradition and the later use of scripture

In this area of study students examine the way a textual theme has been interpreted by the religious tradition at a later time in history. Consideration is given to the impact of these interpretations on the religious tradition. Students will also analyse how the text is used to justify the interpretations of the theme by the religious tradition.

Outcome 3: *On completion of this unit the student should be able to analyse and evaluate how a textual theme has been interpreted within the religious tradition at a later stage of history and understand how the text is used to justify the interpretation.*

Assessment

Students will be required to demonstrate achievement through assessment tasks which can include:

- Essays
- Reports
- Exegetical tasks
- Extended responses
- Short-answer questions

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	25%
Unit 4 School Assessed Coursework	25%
Unit 3 & 4 Examination	50%

Theatre Studies

Unit 1: Pre-modern theatre styles and conventions

This unit focuses on the application of acting, direction and design in relation to theatre styles from the pre-modern era, that is, works prior to the 1920s. Students creatively and imaginatively work in production roles with scripts from the pre-modern era of theatre, focusing on at least three distinct theatre styles and their conventions. They study innovations in theatre production in the pre-modern era and apply this knowledge to their own works. Students develop knowledge and skills about theatre production processes including dramaturgy, planning, development and performance to an audience and apply this to their work.

Areas of Study

1 Exploring pre-modern theatre styles and conventions

In this area of study students study scripts from the pre-modern era of theatre, that is, works prior to the 1920s. They study at least three distinct theatre styles from the pre-modern era and the conventions and scripts associated with each.

Outcome 1: *On completion of this unit, the student should be able to identify and describe distinguishing features of theatre styles and scripts from the pre-modern era.*

2 Interpreting scripts

In this area of study students focus on the presentation of scripts from the pre-modern era of theatre. They work creatively and imaginatively in at least two production roles to interpret scripts from three or more distinct theatre styles of the pre-modern era.

Outcome 2: *On completion of this unit, the student should be able to work creatively and imaginatively in production roles to interpret scripts from the pre-modern era.*

3 Analysing a play in performance

In this area of study, students focus on an analysis of a professional performance of a script. They study the nature of performance analysis, including audience perspective, acting skills, directorial skills and design skills, and the ways in which the contexts and theatre styles identified or implied in a script are interpreted in performance.

Outcome 3: *On completion of this unit, the student should be able to analyse a performance of a script.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Written analysis
- Research Task
- Performance.

Theatre Studies

Unit 2: Modern theatre styles and conventions

This unit focuses on the application of acting, direction and design in relation to theatre styles from the modern era, that is, the 1920s to the present. Students creatively and imaginatively work in production roles with scripts from the modern era of theatre, focusing on at least three distinct theatre styles. They study innovations in theatre production in the modern era and apply this knowledge to their own works. Students develop knowledge and skills about theatre production processes including dramaturgy, planning, development and performance to an audience and apply this to their work. They study safe and ethical working practices in theatre production and develop skills of performance analysis, which they apply to the analysis of a play in performance.

Areas of Study

1 Exploring modern theatre styles and conventions

In this area of study, students study scripts from the modern era of theatre and investigate innovations in theatre practice from the 1920s to the present. They study at least three distinct theatre styles of the modern era, as well as scripts associated with each.

Outcome 1: On completion of this unit, the student should be able to identify and describe the distinguishing features of theatre styles and scripts from the modern era.

2 Interpreting scripts

In this area of study students work in at least two of the production roles of actor, director and/or designer to realise scripts from at least three distinct theatre styles from the modern era. Through this work, students gain an understanding of how production teams can work collaboratively to interpret scripts.

Outcome 2: On completion of this unit, the student should be able to work creatively and imaginatively in production roles to interpret scripts from the modern era.

3 Analysing and evaluating a theatre production

In this area of study, students focus on analysis and evaluation of a professional theatre production of a script. They study the nature of theatre production analysis and evaluation, including the application of acting, direction and design and their effect on an audience.

Outcome 3: On completion of this unit, the student should be able to analyse and evaluate a theatre production.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Assessment tasks may include:

- Written analysis
- Report and oral presentation
- Performance.

Theatre Studies

Unit 3: Producing theatre

In this unit, students develop an interpretation of a script through the three stages of the theatre production process: planning, development and presentation. Students specialise in two production roles, working collaboratively, creatively and imaginatively to realise the production of a script. They use knowledge developed during this process to analyse and evaluate the ways work in production roles can be used to interpret script excerpts previously unstudied. Students develop knowledge and apply elements of theatre composition, and safe and ethical working practices in the theatre.

Areas of Study

1   Staging theatre

In this area of study students focus on developing skills that can be applied to the interpretation of a script for performance to an audience. They work collaboratively, creatively and imaginatively to contribute to the development of a production of a selected script.

Outcome 1: On completion of this unit, the student should be able to interpret a script across the stages of the production process through creative, imaginative and collaborative work undertaken in two production roles.

2   Interpreting a script

In this area of study, students interpret the theatrical possibilities of excerpts from a script. In doing so, they demonstrate their understanding of working creatively and imaginatively in two production roles across the three stages of the production process.

Outcome 2: On completion of this unit, the student should be able to outline concepts and ideas for a creative interpretation of excerpts from a script and explain how these could be realised in a theatre production.

3   Analysing and evaluating theatre

In this area of study students attend, analyse and evaluate an interpretation of a script in a production from the prescribed VCE Theatre Studies Unit 3 Playlist. Students analyse and evaluate the relationship between the written script and its interpretation on stage.

Outcome 3: On completion of this unit, the student should be able to analyse and evaluate the creative and imaginative interpretation of a written script in production to an audience.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- Research and development task
- Written analysis
- Performance

Prerequisites:

Students must satisfactorily complete Unit 1 &/or 2 Theatre Studies **OR** Unit 1 &/or 2 Drama before undertaking Units 3 & 4. If the above have not been met, student must successfully complete a pre-test/audition.

Theatre Studies

Unit 4: Presenting an interpretation

In this unit, students study a scene and an associated monologue. They initially develop an interpretation of the prescribed scene. This work includes exploring theatrical possibilities and using dramaturgy across the three stages of the production process. Students then develop a creative and imaginative interpretation of the monologue that is embedded in the specified scene. To realise their interpretation, they work in production roles as an actor and director, or as a designer.

Areas of Study

1   Researching and presenting theatrical possibilities

In this area of study students document and report on dramaturgical decisions that could inform a creative and imaginative interpretation of a monologue and its prescribed scene.

Outcome 1: *On completion of this unit, the student should be able to describe and justify a creative and imaginative interpretation of a monologue and its prescribed scene.*

2   Interpreting a monologue

In this area of study, students select a monologue from the current examination list and study the text of the monologue, the prescribed scene in which it is embedded and the complete script from which the scene is derived. Students apply selected production roles and develop an interpretation of the monologue that is informed by a study of the prescribed scene and the complete script and dramaturgy, including the contexts of the play.

Outcome 2: *On completion of this unit, the student should be able to interpret and present a monologue and orally justify and explain their interpretive decisions.*

3   Analysing and evaluating a performance

In this area of study, students attend a production selected from the Unit 4 Playlist. They study the theatrical style/s evident in the performance and analyse and evaluate how actor/s, director/s and designer/s interpret the script for an audience.

Outcome 3: *On completion of this unit, the student should be able to analyse and evaluate acting, direction and design in a production.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

* Research and development task
* Written analysis
* Performance

Prerequisites:

Students must satisfactorily complete Unit 1 &/or 2 Theatre Studies **OR** Unit 1 &/or 2 Drama before undertaking Units 3 & 4. If the above have not been met, student must successfully complete a pre-test/audition.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	30%
Unit 4 School Assessed Coursework	15%
End of Year Monologue Performance Examination	25%
End of Year Written Examination	30%

Visual Communication Design

Unit 1: Finding, reframing and resolving design problems

In this unit students are introduced to the practices and processes used by designers to identify, reframe and resolve human-centred design problems. They learn how design can improve life and living for people, communities and societies, and how understandings of good design have changed over time. Students learn the value of human-centred research methods, working collaboratively to discover design problems and understand the perspectives of stakeholders. They draw on these new insights to determine communication needs and prepare design criteria in the form of a brief.

Areas of Study

1   Reframing design problems

In collaboration with others, students identify a problem impacting people, communities or societies that might be resolved using good design. They apply a range of human-centred, ethical research methods to understand the problem and perspectives of stakeholders, such as interviews, observations, focus groups and secondary research. In doing so, students learn to embrace ambiguity, empathise and collaborate with others, synthesise information and develop insights from which to determine specific communication needs or opportunities.

Outcome 1: *On completion of this unit the student should be able to use human-centred research methods to reframe a design problem and identify a communication need.*

2   Solving communication design problems

Students apply the Develop and Deliver stages of the VCD design process as they respond to a given brief detailing the strategy of a brand or business, its communication need and associated design criteria. They manipulate type and imagery to visually communicate the story of a brand or business through defined language and voice, evoking emotional responses among audiences or users. Students present design ideas for critique, using this feedback together with convergent thinking strategies to guide the selection and refinement of concepts. Students present a resolved design solution that addresses the brief and its design criteria.

Outcome 2: *On completion of this unit the student should be able to create visual language for a business or brand using the Develop and Deliver stages of the VCD design process.*

3   Design's influence and influences on design

Students analyse how the design of objects in both past and present contexts have been influenced by economic, technological, cultural, environmental and social factors. They also examine the potential of design itself to shape behaviours, interactions, systems and outcomes. As students respond to a given brief, they use this knowledge to inform their own design of a sustainable, three-dimensional object, adopting circular design practices and mindsets to address issues such as mass production, consumption and material waste.

Outcome 3: *On completion of this unit the student should be able to develop a sustainable object, considering design's influence and factors that influence design.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- a report or presentation exploring conceptions of good design
- a presentation documenting human-centred research methods and findings relating to a design problem
- a written brief identifying a communication need.
- a folio of work demonstrating the design process to create visual language for a business or brand
- presentation of design concepts for a critique
- designing a sustainable object
- a folio of work demonstrating the design process, and using circular design practices to develop a sustainable object.

Please Note:

Students must satisfactorily complete Unit 1 &/or 2 Visual Communication Design before undertaking Units 3 & 4.

Visual Communication Design

Unit 2: Design Contexts and Connections

Student learning activities highlight the connections between design and its context, and the emotive potential of interactive design experiences in both physical and digital spaces. Students also look to historical movements and cultural design traditions as sources of inspiration, and in doing so consider how design from other times and places might influence designing for the future. Design critiques continue to feature as an integral component of design processes, with students refining skills in articulating and justifying design decisions, and both giving and receiving constructive feedback.

Areas of Study

1   Design, place and time

Students engage with the Discover and Define phases of the VCD design process to identify environmental design problems specific to a location of choice. They use research methods to establish influential contextual factors such as economic, technological, cultural, environmental and social influences.

Outcome 1: *On completion of this unit the student should be able to present an environmental design solution that draws inspiration from its context and a chosen design style.*

2   Cultural ownership and design

In this area of study, students explore the designer's ethical and legal responsibilities when drawing on knowledge and designs belonging to Indigenous communities from Australia or abroad. They learn how to adopt culturally appropriate design practices, including protocols for the creation and commercial use of Indigenous knowledge. Students develop a deep appreciation for the histories, practices and foundational contributions of Aboriginal and Torres Strait Islander peoples to Australian design identity, while learning about respectful and appropriate representations of Aboriginal and Torres Strait Islander culture in design.

Outcome 2: *On completion of this unit the student should be able to apply culturally appropriate design practices and an understanding of the designer's ethical and legal responsibilities when designing personal iconography..*

3   Designing Interactive Experiences

Students examine the role of visual communication in shaping positive interactive experiences, and in catering for the diverse needs of users when interacting with devices, systems or services. They explore how interaction designers contribute to larger user-experience (UX) projects, focusing on the design of visual interfaces rather than their underlying functionality. They adopt inclusive practices and principles during the design of a user interface for a digital site or device, prioritising accessibility and usability.

Outcome 3: *On completion of this unit the student should be able to apply the VCD design process to design an interface for a digital product, environment or service.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.

Assessment tasks may include:

- a folio of work demonstrating the stages of the VCD design process to present an environmental design solution.
- an extended written response
- short-answer responses supported by visual references
- an annotated visual report
- a presentation using digital technologies such as an online presentation or interactive website
- an oral presentation
- a folio demonstrating the stages of the VCD design process to propose an interface for an interactive digital product, environment or service.

Please Note:

Students must satisfactorily complete Unit 1 &/or 2 Visual Communication Design before undertaking Units 3 & 4.

Visual Communication Design

Unit 3: Visual Communication in Design Practice

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, focusing their analysis on the purposes, functions and impacts of aesthetic qualities. This exposure to how, why and where designers work, what they make and the integral role of visual language in design practice provides the foundation for students' own investigation of the VCD design process.

Areas of Study

1   Professional Design Practice

In this area of study, students investigate how and where designers work, identifying the role of visual communication in professional design practice. Contemporary designers working in one or more fields of design practice are selected for study. Students compare the contexts in which these designers work, their applications of a design process, and the ways in which they use visual language to communicate ideas and concepts, and present design solutions. Students explore how designers collaborate with both stakeholders and specialists to shape and resolve design problems.

Outcome 1: On completion of this unit the student should be able to compare the ways in which visual communication practices are used by contemporary designers, using research methods and practical exploration.

2   Design Analysis

In this area of study, students learn how visual language is used to effectively communicate ideas and information to audiences or users. Students analyse the aesthetic decisions made by designers when producing messages, objects, environments or interactive experiences. They compare two or more design examples, considering how the design elements and principles are used in combination with media, methods and materials to address perceived communication needs.

Outcome 2: On completion of this unit the student should be able to compare and analyse design examples from selected field(s) of design practice, describing how aesthetic considerations contribute to the effective communication of information or ideas.

3   Design Process – Defining Problems and Developing Ideas

In this area of study, students explore the Discover, Define and Develop phases of the VCD design process, and apply understandings of good design when addressing a selected design problem. Students begin the Discover phase by using divergent thinking strategies and applying ethical research methods to identify a design problem or opportunity. They gather insights about stakeholder perspectives and other influential factors using a range of research methods such as but not limited to interviews and surveys, audience or user personas, competitor analysis and secondary research.

Outcome 3: On completion of this unit the student should be able to identify two communication needs for a client, prepare a brief and develop design ideas, while applying the VCD design process and design thinking strategies.

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit. Examples of assessment tasks may include:

- a written report
- an annotated visual report
- a response presented in a digital format, such as an online presentation or interactive website.

AND

- two practical design exercises documenting emerging skills in selected field(s) of practice.
- a response presented in a digital format, such as an online presentation or interactive website.

School-assessed Coursework for Unit 3 will contribute 20 per cent to the study score.

Visual Communication Design

Unit 4: Delivering Design Solutions

In this unit students continue to explore the VCD design process, resolving design concepts and presenting solutions for two distinct communication needs. Ideas developed in Unit 3, Outcome 3 are evaluated, selected, refined and shared with others for further review. They select materials, methods and media appropriate for the presentation of final design solutions distinct from one another in purpose and presentation format, and that address design criteria specified in the brief.

Areas of Study

1   Design Process: Refining and Resolving Design Concepts

In this area of study, students reflect critically on feedback received in Unit 3, Outcome 3 as they evaluate, select and evolve design ideas into concepts for further refinement and testing. In doing so, students explore the Deliver phase of the VCD design process. Students resolve selected design concepts and devise a pitch of one concept for each communication need to communicate their design thinking and decision making to an audience or user. Students explain the reasons for their selection and use of particular materials, media and methods, design elements and principles, and formats for presentation. They consider responses to their pitch and further refine each selected concept, in preparation for the presentation of final design solutions.

Outcome 1: *On completion of this unit the student should be able to refine and resolve distinct design concepts for each communication need, and devise and deliver a pitch to communicate concepts to an audience or users, evaluating the extent to which these meet the requirements of the brief.*

2   Presenting design solutions

In this area of study, students present design solutions for each of the communication needs addressed in Area of Study 1. They choose how best to use visual language to communicate solutions to stakeholders, considering aesthetic impact through applications of design elements and principles. Students select materials, methods and media appropriate for the presentation of final design solutions that are distinct from one another in purpose and presentation format, and that address design criteria specified in the brief.

Outcome 2: *On completion of this unit the student should be able to produce a design solution for each communication need defined in the brief, satisfying the specified design criteria.*

Assessment

Students will be required to demonstrate a satisfactory achievement of the specified outcomes for the unit.
Assessment tasks may include:

- A folio of work presenting the development of design concepts for two distinct communication needs.
- Evaluation, testing and resolution of design concepts.
- Devise and deliver a pitch of one design concept for each of the two distinct communication needs.
- Documentation of the development, refinement and resolution of design concepts.
- Two distinct final presentations in two separate presentation formats that fulfil the communication needs and design criteria outlined in Unit 3, Outcome 3.
- Use of visual language and appropriate methods to communicate solutions to an audience or users.

Contributions to Final Assessment	
Unit 3 School Assessed Coursework	20%
School Assessed Task (SAT)	50%
Unit 3 & 4 Examination	30%

VCE VET Program Structure

Introduction

VCE VET programs are Vocational Education and Training programs approved by the Victorian Curriculum and Assessment Authority (VCAA) and accredited by the Victorian Qualifications Authority (VQA).

VCE VET programs lead to nationally recognised qualifications, thereby offering students the opportunity to gain both the VCE and a nationally accredited vocational education and training certificate.

VCE VET programs:
- are fully recognised within the Unit 1 – 4 structure of the VCE and therefore contribute towards satisfactory completion of the VCE. VCE VET units have equal status with other VCE studies
- function within the National Training Framework.

VET in the VCE allows students to include vocational studies within their senior secondary certificate. Students undertake nationally recognised training from either accredited state curriculum or national training packages which may contribute to their VCE. These VET programs may be undertaken in a variety of settings and offer students the opportunity to undertake Structured Workplace Learning (SWL).

Aims

The aims of the VCE VET programs are to:
- provide participants with the knowledge and skills to achieve competencies that will enhance their employment prospects in related industries
- enable participants to gain a recognised credential and make a more informed choice of vocation or career paths.

Assessment

VCE VET programs have specific requirements regarding demonstration of competence and appropriate assessment of competence.

Scored Assessment

Selected VCE VET programs have a study score component based on the designated Unit 3 & 4 sequence of their program. Scored assessment is comprised of:
- School Assessed Coursework – a set of coursework tasks set by the assessor
- an examination set by the VCAA.

The study score can contribute directly to the ATAR as one of the students primary four scaled studies or as the fifth or sixth study.

It is important to note that the Units 3 & 4 sequences of VCE VET programs are not designed as stand-alone studies. In order to receive the VET qualification, students must undertake the entire Units 1 to 4 structure of a VCE VET program.

VCE VET – Music (Sound Production)

The Certificate III in Music (Sound Production) has been developed in conjunction with music industry professionals and is delivered over two years. The program sets out to provide students with a range of competencies that are considered by the Music Industry to be a relevant and useful preparation to pursue a career or further study in industries such as music, radio, television, media or entertainment. VET Music (Sound Production) is studied in conjunction with the full VCE or VCE (VM) or VPC programs, which allow students to achieve their VCE or VCE (VM) or VPC and their VET certificate concurrently.

For this VET program, MacKillop College has partnered with Australian College of the Arts Pty Ltd (RTO 0109)

Units 1 & 2 – Certificate III in Sound Production (CUS30915) – Partial Completion

On successful completion of this program students are eligible for:

- The award of a partial certificate in CUS30915 Certificate III Sound Production
- Receive recognition for three VCE VET at Unit 1 & 2 level
- Receive recognition of one VCE (VM) unit when a student has been assessed as competent in units totaling 90 nominal hours.

Students must achieve the following units of competence and those offered at Unit 3 & 4 in order to be successfully awarded CUS30915 Certificate III Sound Production.

Units of Competence

1   Core

Unit Code	Unit Name	Nominal Hours
BSBWHS201	Contribute to health and safety of self and others	20
CUAIND303	Work effectively in the music industry	35
CUAMLT302	Apply knowledge of style and genre to music industry practice	40
CUFCMP301A	Implement copyright arrangements	20
Total		115

2   Electives

Unit Code	Unit Name	Nominal Hours
CUASOU201	Develop basic audio skills and knowledge	40
CUASOU202	Perform basic sound editing	30
Total		70

Assessment

Students must demonstrate competency by completing practical and theory based outcomes for each Unit of Competence. Assessment will be school based.

VCE VET – Music (Sound Production)

The Certificate III in Music (Sound Production) has been developed in conjunction with music industry professionals. The program sets out to provide students with a range of competencies that are considered by the music industry to be a relevant and useful preparation to pursue a career or further study in industries such as music, radio, television, media or entertainment. VET Music (Sound Production) is studied in conjunction with the full VCE or VCE (VM) or VPC programs, which allow students to achieve their VCE or VCE (VM) or VPC and their VET certificate concurrently.

For this VET program, MacKillop College has partnered with Australian College of the Arts Pty Ltd (RTO 0109)

Units 3 & 4 – Certificate III in Sound Production (CUS30915)

On successful completion of this program, students will:
- Receive the award of CUS30915 Certificate III in Sound Production
- Receive recognition of up to five VCE VET units: three at unit 1 & 2 and a Unit 3 & 4 sequence
- Receive recognition of one VCE (VM) unit when a student has been assessed as competent in units totaling 90 nominal hours.

Units of Competence

Unit Code	Unit Name	Nominal Hours
CUASOU311	Mix music in a studio environment	60
CUASOU306	Operate sound reinforcement systems	40
CUASOU307	Record and mix a basic music demo	40
CUASOU308	Install and disassemble audio equipment	40
CUASOU402	Manage audio input sources	30
Total		210

Assessment

Students must demonstrate competency by completing practical and theory based outcomes for each unit. Assessment will be school based with an external examination for those students wishing to obtain a study score. A study score is available to students who successfully complete all aspects of VCE assessment.

Contributions to Final Assessment	
Coursework Task	66%
Written Examination	34%

Please Note:

Students must satisfactorily complete Unit 1 & 2 VCE VET – Music (Sound Production) before undertaking Unit 3 & 4.

VCE VET – Sport and Recreation

The Certificate III in Sport & Recreation is part of a Vocational Education and Training in Schools program. Parts of the program are offered as credit transfers from VCE units studied in Years 11 and 12. Sport & Recreation is studied in conjunction with the full VCE allowing students to achieve their VCE and their VET certificate concurrently.

The Certificate in Sport & Recreation is designed to provide students with a range of competencies which are considered by the Sport and Recreation Industry to be a relevant and useful preparation for employment in the industry. Students develop a wide-ranging foundation in entry level training for all sectors of the Sport and Recreation industry.

For this VET program, MacKillop College has partnered with IVET Institute Pty Ltd (RTO 40548)

Units 1 & 2 – Certificate III in Sport & Recreation (SIS30115) – Partial Completion

On successful completion of this program students are eligible for:

- The award of **SIS30115** Certificate III in Sport & Recreation – (Partial)
- Recognition for two VCE VET at Unit 1 & 2 level.

Students must achieve the following units of competence in order to be successfully awarded a partial Certificate III in Sport & Recreation.

Units of Competence

Year 1		
Unit Code	Unit Name	Nominal Hours
BSBWOR301	Organise personal work priorities and development	30
HLTAID003	Provide first aid	18
HLTWHS001	Participate in workplace health and safety	20
ICTWEB201	Use social media tools for collaboration and engagement	20
SISXCAI003	Conduct non-instructional sport, fitness or recreation sessions	20
SISXCCS001	Provide quality service	25
SISXEMR001	Respond to emergency situations	18
SISXFAC002	Maintain sport, fitness and recreation facilities	14
SISXCAI002	Assist with activity sessions	15
SISXFAC001	Maintain equipment for activities	5
Total		185

Assessment

Students must demonstrate competency by completing practical and theory-based outcomes for each Unit. Assessment will be school based.

VCE VET – Sport and Recreation

Certificate III in Sport and Recreation provides students with the skills and knowledge to work in the Sport and Recreation industry in areas such as maintaining grounds and playing surfaces, providing customer service, recreation officer and sports administrative services. Possible job outcomes for a student with this qualification may include the provision of sport and recreation programs, grounds and facilities maintenance and working in the service industry in locations such as a fitness centre, outdoor sporting ground or aquatic centres.

For this VET program, MacKillop College has partnered with IVET Institute Pty Ltd (RTO 40548)

Units 3 & 4 – Certificate III in Sport & Recreation (SIS30115)

On successful completion of this program students will:
- Receive the award of SIS30115 Certificate III Sport & Recreation
- Receive recognition for four VCE VET Units: two at Unit 1 & 2 and two at Unit 3 & 4.

Units of Competence

Unit Code	Unit Name	Nominal Hours
SISSSCO001	Conduct sport coaching sessions with foundation level participants	50
SISXCAI004	Plan and conduct programs	35
SISXCAI306	Facilitate groups	25
SISXRES002	Educate user groups	25
BSBWHS303	Participate in WHS hazard identification, risk assessment and risk control	50
Total		185

Assessment

Students must demonstrate competency by completing practical and theory-based outcomes for each Unit.

Contributions to Final Assessment	
Coursework Tasks	66%
Written Examination	34%

Please Note:

Students seeking a study score to contribute towards their ATAR must satisfactorily complete Unit 2 VCE VET - Sport & Recreation before undertaking Unit 3 & 4.

VET - Engineering Studies

The Certificate II in Engineering Studies has been developed to provide pre-employment training and pathways in the engineering, manufacturing or related industries and accommodate entry into the wider engineering industry.

Whilst this subject is best undertaken in the VCE (VM) program, it can be completed by students completing a VCE program as well.

For this VET program, MacKillop College has partnered with Educational Living Pty Ltd (RTO 3784)

Year 1 – Certificate II in Engineering Studies (22470VIC) – Partial Completion

On successful completion of this program students are eligible for:
- The award of a partial certificate in 22470VIC Certificate II in Engineering Studies
- Receive recognition of one VCE (VM) unit when a student has been assessed as competent in units totaling 90 nominal hours.

Students must achieve the following units of competence and those offered at Year 2 in order to be successfully awarded 22209VIC Certificate II Engineering Studies.

Units of Competence

Unit Code	Unit Name	Nominal Hours
MEM13014A	Apply principles of OH&S in the work environment	10
MEM18001C	Use hand tools	20
MEM18002B	Use power tools/handheld operations (F / M)	20
VU22329	Report on a range of sectors in the manufacturing, engineering and related industries	30
VU22330	Select and interpret drawings and prepare three dimensional (3D) sketches and drawings	20
VU22331	Perform basic machining processes	40
VU22332	Apply basic fabrication techniques	40
VU22335	Perform metal machining operations	60
Total		240

Assessment

Students must demonstrate competency by completing practical and theory-based outcomes for each Unit of Competence. Assessment will be school based.

VET Engineering Studies

The Certificate II in Engineering Studies has been developed to provide pre-employment training and pathways in the engineering, manufacturing or related industries and accommodate entry into the wider engineering industry.

Whilst this subject is best undertaken in the VCE (VM) program, it can be completed by students completing a VCE program as well.

For this VET program, MacKillop College has partnered with Educational Living Pty Ltd (RTO 3784)

Year 2 – Certificate II in Engineering Studies (22470VIC)

On successful completion of this program students are eligible for:
- The award of 22470VIC Certificate II in Engineering Studies
- Receive recognition of one VCE (VM) unit when a student has been assessed as competent in units totaling 90 nominal hours.

Units of Competence

Unit Code	Unit Name	Nominal Hours
MEMPE006A	Undertake a basic engineering project	80
VU22333	Perform intermediate engineering computations (F / M / T)	40
VU22334	Produce basic engineering components and products using fabrication and machining operations (F / M)	60
Total		180

Assessment

Students must demonstrate competency by completing practical and theory based outcomes for each Unit of Competence. Assessment will be school based.

VCE (VM) Certificate II - Small Business (Operations/Innovation) – Partial Completion

All VCE (VM) and VPC students complete a semester of 22480VIC Certificate II in Small Business.

The VET Small Business program aims to:

- provide students with the knowledge, skills, and competency that will enhance their training and employment prospects within small business contexts across a range of industry sectors
- · enable students to gain a recognised credential and to make an informed choice of vocation or career path.

For this VET program, MacKillop College has partnered with Ripponlea Institute (RTO 21230).

An AQF Statement of Attainment will be awarded by Ripponlea Institute (RTO 21230) only upon successful completion of assessment requirements for each unit of competency.

Units of Competence

Year 1 (Year 11)		
Unit Code	Unit Name	Nominal Hours
VU22523	Undertake basic market research and promotion for a small business product or service	60
VU22527	Contribute to small business planning	40
BSBCRT301	Develop and extend critical and creative thinking skills	40
VU22522	Identify small business policies and procedures	40
Year 2 (Year 12)		
VU22520	Contribute to small business operations and innovation	50
VU22521	Develop elementary skills for small business environments	40
FNSFLT301	Be Money Smart	40
Total		310

Assessment

Students will be assessed on their skills and knowledge through a variety of assessment tasks. Assessment tasks may include:

- Work project
- Written questions
- Observation of practical tasks.

VCE (VM) – Vocational Education and Training Delivered to Secondary Students (VETDSS)

Introduction

VET programs lead to nationally recognised qualifications, thereby offering students the opportunity to gain both the VCE (VM) and a nationally accredited Vocational Education and Training certificate.

The Curriculum in this Learning Program will provide vocational skills development and experiences that are important for the vocational and employability outcomes of the VCE (VM). All VCE (VM) and VPC students are required to undertake a VET program accredited by the Victorian Qualifications Authority (VQA).

One credit will be given for the successful completion of accredited vocational education and training units or modules that total approximately 90 nominal hours. Students must successfully complete a minimum of one credit in VETDSS each year of their VCE (VM).

Curriculum selected for this strand must be off-campus VETDSS offerings.

Aims

The aims of the VET programs are to:

- provide participants with the knowledge and skills to achieve competencies that will enhance their employment prospects in related industries
- enable participants to gain a recognised credential and make a more informed choice of vocation or career paths.

Study in this strand is designed to:

- develop key knowledge and key skills in a vocational context that assists the student in making informed choices regarding further learning and/or employment
- provide vocational experiences relevant to student interests and abilities
- provide pathways to further study at TAFE or further workplace training.

VETDSS purpose statement

The purpose of the Industry Specific Skills strand is to enable the development of skills, knowledge and attitudes related to one or more vocational contexts in preparation for progression to further learning or employment. Whilst specific VET units can be curriculum components of this strand, the Learning Program should focus on the orientation towards a number of vocational contexts in order for students to make informed choices as to the pathway options available to them through the VCE, VET and employment.

Curriculum selected for the Learning Program should provide a range of experiences within a particular industry sector to assist students to make informed decisions for future pathways choices and to promote the student's employability skills. It is not specifically intended that students will graduate as qualified in an occupational area, but that they will have gained highly relevant experience and developed employability skills for an industry sector.

Assessment

VET programs have specific requirements regarding demonstration of competence and appropriate assessment of competence.

All VCE (VM) students must undertake a work placement program which sanctions students to match their VET course with their Industry Placement (Structured Workplace Learning – SWL), as required. Failure to meet this requirement will result in not meeting the VCE (VM) requirements of the VCAA VCE (VM) certificate.

VET in the VCE (VM) Program

VCE (VM) students may apply to complete the VET courses listed below through the Wyndham Cluster and Trade Training Centres. Students are responsible for their own transport from the relevant campus however a bus will operate taking students to the various campuses. Students who study VET Off-Campus are expected to keep up-to-date with their schoolwork in all subjects.

Certificate	Venue	Years
Certificate III Allied Health assistance (Partial Completion)	The Gordon Werribee Campus	1 & 2
Certificate II Animal Studies	Manor Lakes P-12	1 & 2
Certificate II Applied Fashion Design & Technology	Thomas Carr College	1 & 2
Certificate II Automotive Vocational Preparation	The Grange	1 & 2
Certificate III in Beauty	The Masters Institute of Creative	
Certificate II Building & Construction (Bricklaying Pre-Apprenticeship)	Victoria University Polytechnic (Werribee Campus)	1 & 2
Certificate II Building & Construction (Carpentry Pre-Apprenticeship)	Thomas Carr College and Victoria University Polytechnic (Werribee Campus)	1 & 2
Certificate II in Business (Partial Cert III)	Hoppers Crossing Secondary College	1 & 2
Certificate II Community Services	Werribee Secondary	1 & 2
Certificate II in Cookery	Heathdale Christian College	1 & 2
Certificate II Dance	Hoppers Crossing Secondary College	1 & 2
Certificate III Early Childhood Education & Care	Wyndham Community & Education Centre	1 & 2
Certificate II Electrotechnology Studies	Wyndham Central College and Victoria University Polytechnic (Werribee Campus)	1 & 2
Certificate II Engineering Studies	MacKillop College	1 & 2
Certificate III in Emerging Technologies	Wyndham Tech School, VU Werribee Campus	1 & 2
Certificate II Furniture Making	Thomas Carr College	2
Certificate II Horticulture	Werribee Park - Werribee South	1 & 2
Certificate III Information, Digital Media & Technology	Werribee Secondary College	1 & 2
Certificate II Kitchen Operations	Heathdale Christian College	1
Certificate III Make-Up (Partial)	The Grange	1 & 2
Certificate III Music Industry (Performance)	Manor Lake College	1 & 2
Certificate III Music Industry (Sound Production)	Thomas Carr	1 & 2
Certificate II Plumbing (Pre-Apprenticeship)	Wyndham Central College and The Gordon Hoppers Crossing Campus	1
Certificate II Plumbing (Pre-Apprenticeship)	The Gordon - Hoppers Crossing Campus	2
Certificate III Screen and Media	Werribee Secondary College	1
Certificate III Sport and Recreation	Wyndham Central College	1
Certificate III Sport and Recreation	Hoppers Crossing Secondary College	2
Certificate II Visual Arts	Werribee Secondary College	1

An additional fee applies to these programs which must be paid in full prior to the school year commencing for the enrolment to be completed. Please consult the Applied Learning Leaders for any course that is not listed that you may have an interest in pursuing.

NOTE: This list is based on 2023 electives as the 2024 offerings are still being developed

VPC Certificate II – Workplace Skills

The Certificate II in Workplace Skills program comprises two units within the VPC program.

This qualification reflects the role of individuals who have not yet entered the workforce and are developing the necessary skills in preparation for work.

These individuals carry out a range of basic procedural, clerical, administrative or operational tasks that require self-management and technology skills. They perform a range of mainly routine tasks using limited practical skills and fundamental operational knowledge in a defined context.

BSB20120 Certificate II in Workplace Skills

On successful completion of this program students are eligible for:
- BSB10120 Certificate I in Workplace Skills and
- BSB20120 Certificate II in Workplace Skills

Students must achieve the following units of competence in order to be successfully awarded Certificate II in Workplace Skills.

Compulsory Units		
Unit Code	Unit Name	Nominal Hours
BSBCMM211	Apply communication skills	35
BSBOPS201	Work effectively in business environments	25
BSBPEF202	Plan and apply time management	15
BSBSUS211	Participate in sustainable work practices	15
BSBWHS211	Contribute to the health and safety of self and others	15
Subtotal		105
Elective Units		
BSBCRT201	Develop and apply thinking and problem-solving skills	25
BSBPEF302	Develop self-awareness	25
BSBOPS101	Use business resources	20
BSBPEF101	Plan and prepare for work readiness	20
BSBTEC202	Use digital technologies to communicate in a work environment	20
BSBTEC101	Operate digital devices	20
Total		235

Assessment

Students will be assessed on their skills and knowledge through a variety of assessment tasks. Assessment tasks may include:
- Work project
- Written questions
- Observation of practical tasks.

VCE (VM) – Literacy

Introduction

VCE Vocational Major Literacy focuses on the development of the knowledge and skills required to be literate in Australia today. The key knowledge and key skills encompass a student's ability to interpret and create texts that have purpose, and are accurate and effective, with confidence and fluency. As students develop these skills, they engage with texts that encompass the everyday language of personal experience to the more abstract, specialised and technical language of different workplaces, including the language of further study.

Aims

Along with the literacy practices necessary for reading and interpreting texts, it is important that students develop their capacity to respond to texts. Listening, viewing, reading, speaking and writing are developed systematically and concurrently, so that students' capacity to respond to different texts informs the creation of their own written and oral texts. A further key part of literacy in this study design is that students develop their understanding of how texts are designed to meet the demands of different audiences, purposes and contexts, including workplace, vocational and community contexts. This understanding helps students develop their own writing and oral communication, so that they become confident in their use of language and their ability to comprehend, respond to and create texts for a variety of settings.

Students' development of literate practices includes an emphasis on critical literacy so that they understand the social nature of language and how texts position readers in relation to particular ideologies.

Literacy Skills purpose statement

This study enables students to:

- develop their everyday literacy skills through thinking, listening, speaking, reading, viewing and writing to meet the demands of the workplace, the community, further study and their own life skills, needs and aspirations
- participate in discussion, exploration and analysis of the purpose, audience and language of text types and content drawn from a range of local and global cultures, forms and genres, including First Nations peoples' knowledge and voices, and different contexts and purposes
- discuss and debate the ways in which values of workplace, community and person are represented in different texts
- present ideas in a thoughtful and reasoned manner.

Achievement at each level

One credit will be awarded for the successful completion of one VCE (VM) unit that totals approximately 100 nominal hours. Students must successfully complete a sequence of VCE (VM) - Literacy, that is 3 units of Literacy with the Unit 3 and 4 sequence being compulsory.

VCE (VM) – Numeracy

Introduction

Numeracy is the ability to use mathematical skills in order to carry out purposes and functions within society related to designing, measuring, constructing, using graphical information, money, time and travel, and the underpinning skills and knowledge for further study in mathematics or related fields.

Curriculum selected for numeracy in this strand should develop skills to facilitate the practical application of mathematics at home, work and in the community.

Aims

Study in this strand is designed to:
- develop and enhance their numeracy practices to help them make sense of their personal, public and vocational lives
- develop mathematical skills with consideration of their local, national and global environments and contexts, and an awareness and use of appropriate technologies.

Numeracy Skills purpose statement

Numeracy enables students to develop logical thinking and reasoning strategies in their everyday activities. It develops students' problem-solving skills, and allows them to make sense of numbers, time, patterns and shapes for everyday activities like cooking, gardening, sport and travel. Through the applied learning principles Numeracy students will understand the mathematical requirements for personal organisation matters involving money, time and travel. They can then apply these skills to their everyday lives to recognise monetary value, understand scheduling and timetabling, direction, planning, monetary risk and reward.

Technology is an integral part of everyday and working life in Australia. Handheld devices like tablets are used for common daily uses: connectivity, communication, sourcing information, and as a tool for carrying out a myriad of functions. Software applications are available on a range of devices. There is an expectation that our students are ready with these skills when they transition to independent living, further study or to work. The integration of digital technologies in the learning of mathematical processes is essential and is embedded throughout this study.

Achievement at each level

Students must complete all set tasks to ensure that they have achieved success across all three outcomes – numerical skills and knowledge, the problem-solving cycle and a mathematical toolkit.

Authentication

Work related to the outcomes of each unit will be accepted only if the teacher can attest that, to the best of their knowledge, all unacknowledged work is the student's own. Teachers will refer to the VCE Administrative Handbook for authentication procedures.

VCE (VM) – Work Related Skills Strand

Introduction

The Work Related Skills Units examine a range of skills, knowledge and capabilities relevant to achieving individual career and educational goals. Students will develop a broad understanding of workplace environments and the future of work and education, in order to engage in theoretical and practical planning and decision-making for a successful transition to their desired pathway.

Aims

Students preparing to transition to the workforce and to further education are best placed for success when they have confidence, self-awareness and the skills to interpret relevant information and make informed decisions about their future goals.

The Work Related Skills Units are designed to:
- understand and apply concepts and terminology related to the workplace
- understand the complex and rapidly changing world of work and workplace environments and the impact on the individual
- understand the relationship between skills, knowledge, capabilities and the achievement of pathway goals
- develop effective communication skills to enable self-reflection and self-promotion
- apply skills and knowledge in a practical setting.

Structure

The study considers four key areas: the future of work; workplace skills and capabilities; industrial relations and the workplace environment and practice; and the development of a personal portfolio.

This study is made up of four units:
- Unit 1: Careers and learning for the future
- Unit 2: Workplace skills and capabilities
- Unit 3: Industrial relations, workplace environment and practice
- Unit 4: Portfolio preparation and presentation

Work Related Skills purpose statement

The purpose of Work Related Skills is for students to develop the knowledge, skills and experiences to be active and engaged citizens and future members of the workforce, with the ability to communicate effectively, advocate for themselves and be adaptable to change. The study of WRS leads to opportunities across all industries and areas of work as well as in further education and provides young people with the tools they need to succeed in the future.

The Key Competencies that are the basis of the Work Related Skills Units are as follows:
- key ideas and concepts relating to career and educational goals
- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others and in teams

VCE (VM) – Personal Development Skills Strand

Introduction

The Personal Development Skills units have been developed to recognise learning, not recognised within other qualifications, that is valued within the community and that develops the knowledge, skills and attributes identified in this strand.

The units enable students to develop personal development skills through participation in locally developed curriculum. Locally developed programs must enable the achievement of the Personal Development Skills unit learning outcomes.

Aims

The Personal Development Skills units are designed to develop:

- self-awareness
- improved health and wellbeing
- commitment to, and achievement of, personal goals
- social and community awareness
- civic and civil responsibility.

Unit One focuses on the development of appropriate knowledge, skills and attributes in relation to self, personal organisation, planning skills, problem solving and interpersonal skills. This can be achieved through participation in activities related to person, health and wellbeing, educational, social or family experiences of a practical nature. Unit Two focuses on the development of appropriate knowledge, skills and attributes in relation to community engagement, social awareness, interpersonal skills, planning and organisational skills. Unit 3 focuses on the development of community programs to address social needs, whilst Unit 4 is a personal project underpinned by the each students' interests, skill sets and community connection.

Many youth development programs delivered by VCE (VM) providers will involve students in external provider activities and/or community based projects. Learning programs that incorporate a youth development philosophy will require a commitment to flexible learning and delivery.

Personal Development Skills Purpose Statement

The purpose of the Personal Development Skills Strand is to develop knowledge, skills and attributes that lead towards the development of self, understanding social responsibility, participating in and building community, civic and civil responsibility and improved self-confidence and self-esteem. Personal development includes self-esteem and personal qualities developed through valuing personal achievement and contributions for the benefit of the community or personal growth. This may involve demonstration of leadership, teamwork skills, accepting responsibility for goal achievement and reflecting on knowledge and skills for decision making and problem solving.

Gaining credit/s toward the award of the VCE (VM)

Students must successfully complete a minimum of two VCE (VM) Personal Development Skills units across the course of their program.

VPC – Literacy

VPC Literacy enables the development of knowledge, skills and capabilities relevant to reading, writing and oral communication and their practical application in the contexts of everyday life, family, employment, further learning and community.

This study provides students with the key skills and knowledge to interpret and create texts with appropriateness, accuracy, confidence and fluency, as well as for learning in and out of school, and for participating in the workplace and community. The word 'text' refers to any attempt to communicate through written, visual or spoken language that can be assigned meaning and can be drawn from a range of sources including media texts, multimodal texts, texts used in daily interactions such as print and social media, and workplace texts such as operational and instruction manuals in everyday and familiar settings.

Aims

VPC Literacy aims to develop students' abilities to read, write, speak and listen in everyday and familiar contexts. The curriculum will assist students to develop an understanding of the different ways in which knowledge and opinion are represented and developed in texts drawn from daily life. This Literacy study is based upon applied learning principles, making strong connections between students' lives and their learning. By engaging with a wide range of text types and content drawn from a range of local and global cultures, forms and genres, including First Nations peoples' knowledge and voices, students learn how information can be shown through print, visual, oral, digital and multimodal representations.

Literacy Purpose Statement

This study enables students to:

- develop their everyday literacy skills by thinking, listening, speaking, reading, viewing and writing to meet the demands of the workplace, the community, further study and their own life skills, needs and aspirations
- participate in discussion, exploration and analysis of the purpose, audience and language of text types and content drawn from a range of local and global cultures, forms and genres, including First Nations peoples' knowledge and voices and different contexts and purposes
- discuss and debate the ways in which values of workplace, community and person are represented in different texts
- present ideas in a thoughtful and reasoned manner.

VPC – Numeracy

The purpose of this study is to enable students to develop their everyday numeracy practices to make sense of their personal, public, and future vocational lives. Students develop foundational mathematical skills with consideration of their personal, home, vocational and community environments and contexts, and an awareness and use of accessible and appropriate technologies.

The contexts are the starting point and the focus and are framed in terms of personal, financial, civic, and health and recreational classifications. The numeracies are introduced using a problem-solving cycle with four components:

- identifying the mathematics
- acting on and using mathematics
- evaluating and reflecting
- communicating and reporting.

The mathematics includes foundational skills related to measurement, shape, numbers, and graphs applied to tasks that are part of the students' everyday lives. At the end of the two units, students should be able to attempt structured and supported activities and tasks that require simple processes such as counting, sorting, comparing and performing basic arithmetic operations with whole numbers and common, simple fractions and decimals, money, or recognising common spatial representations and measurements in highly familiar contexts.

Aims

Numeracy enables students to develop logical thinking and reasoning strategies in their everyday activities. It develops students' problem-solving skills, allows them to make sense of numbers, time, patterns and shapes for everyday activities like cooking, gardening, sport and travel. Through numeracy, students understand the mathematical requirements for personal organisation matters involving money, time and travel. They can then apply these skills to their everyday lives to recognise monetary value, understand scheduling and timetabling, direction, planning, monetary risk and reward.

Numeracy Purpose Statement

This study enables students to:

- develop their everyday numeracy practices to make sense of their personal, public and future vocational lives
- develop foundational mathematical skills with consideration of their personal, home, vocational and community environments and contexts, and an awareness and use of accessible and appropriate technologies.

VPC – Personal Development Skills

VPC Personal Development Skills (PDS) takes a dual approach to exploring and optimising personal development. This is done through a focus on understanding and caring for self, and then through a focus on engagement with community.

The foundational pillars of this study are physical, social and emotional health and wellbeing, which are realised by self-reflection of the students. Students are supported through the curriculum to make positive connections between self-understanding, setting and achieving goals, purposefulness, resilience and enhanced health and wellbeing. They look at the significance of self-care in a range of contexts including physical care, relationships and online environments. Students articulate concepts of consent, equity and access, and reflect on how to express themselves in safe and effective ways.

Aims

VPC Personal Development Skills provides a framework through which students can increase their self-understanding, build their capacity for self-care and engage meaningfully with both their student cohort and the broader community. This study equips students to set and achieve challenging personal goals, and to take action to improve their health and wellbeing.

PDS enables students to explore and address personal and collective questions and challenges. It builds the capacity of students to be motivated, independent and purposeful individuals and community members, prepared to navigate the future world of work, education and personal relationships.

PDS Purpose Statement

This study enables students to:

- reflect on personal values, feelings and behaviours
- articulate their strengths, abilities and potential, and to set personal goals
- understand the fundamental pillars of health and wellbeing
- practise physical, social and emotional self-care
- maintain respectful, positive and safe relationships
- analyse relationships between personal development and community connection
- outline the rights and responsibilities of living in a democracy
- analyse the significance of community support systems
- participate in independent, team and community-based activities.

VPC – Work Related Skills

VPC Work Related Skills (WRS) enables the development of knowledge, skills and personal attributes relevant to further education and employment. The study also provides practical, authentic opportunities for students to develop employability skills.

This study examines four key areas: workplace health and culture; skills and capabilities; planning and executing a small-scale work-related activity; and activities related to seeking employment and further training.

VPC Work Related Skills provides a framework through which students can continue to build their educational knowledge and skills, prepare to transition to the workforce and to further education, best placing them for success. This study helps students develop an understanding of the motivation, behaviours, rights and responsibilities of self and others, as well as the skills to communicate effectively, to work within a team and the capacity to reflect and improve when applying knowledge, experiences and skills to a real-world situation.

Aims

WRS has a major focus on the relationship between personal interests and skills, employment and education opportunities and pathway planning. Students apply their knowledge and understanding to practical and collaborative activities to prepare for the process of applying for jobs and being a valued and productive employee in the workplace.

WRS emphasises student participation in activities that develop tangible employability skills and prepares students for their desired future pathway.

WRS Purpose Statement

This study enables students to:
- identify and implement practical ways to ensure mental health and wellbeing in the workplace
- identify safety risks and hazards in the workplace
- proactively implement strategies to ensure personal safety and the safety of others within the workplace
- understand rights and responsibilities in the workplace
- identify and articulate personal skills, capabilities and technical knowledge, as it relates to suitability for employment and further education
- understand options and plan for future pathways beyond secondary education
- identify and apply relevant strategies to apply for employment and training opportunities.