

Anglican Grammar
Hume



2019
CURRICULUM GUIDE
FOR
THE VCE

 let your colours shine

Please note that Curriculum Descriptions for all subjects in this Curriculum Guide are based on the relevant 2019 Study Design as published by the Victorian Curriculum and Assessment Authority for each study.

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Introduction

At Hume Anglican Grammar we are dedicated to blending academic excellence with richness of opportunity and experience beyond the classroom. These experiences will occur through the activities and subjects which students choose to undertake and may include anything in the areas of sport, debating, music, arts, leadership opportunities, as well as their academic program.

It is important to keep in mind that the purpose of our students' education is to prepare them to be confident, critical thinkers who have a passion for learning in any setting.

Hume Anglican Grammar strives to provide an equitable educational experience for all of our students, to establish academic excellence as habit and equip students with essential lifelong skills. Aside from their subject curricula, students are supported in their academic journey through their VCE studies by a number of programs. All students in Year 11 and 12 take part in several Elevate Education sessions (<https://au.elevateeducation.com/seminars/Senior>) based around skills relating to time management, memory techniques, examination preparation and general study techniques. Further, we provide students with access to two very useful online resources – Edrolo (<https://edrolo.com.au/>) and Study Samurai (<http://www.studysamurai.com/>). Edrolo allows students to access subject specific material, from revision questions to video tutorials. Study Samurai is an excellent resource for students to improve their study and time management skills in their own time.

Year 11 and Year 12 Course Overviews

The following is an overview of a typical course followed by a student at Hume Anglican Grammar.

Year 11

Semester 1	English/Literature Unit 1	Elective Unit 1	Elective Unit 1	Elective Unit 1	Elective Unit 1	Elective Unit 1
Semester 2	English/Literature Unit 2	Elective Unit 2	Elective Unit 2	Elective Unit 2	Elective Unit 2	Elective Unit 2

Year 12

Semester 1	English/Literature Unit 3	Elective Unit 3	Elective Unit 3	Elective Unit 3	Elective Unit 3
Semester 2	English/Literature Unit 4	Elective Unit 4	Elective Unit 4	Elective Unit 4	Elective Unit 4

The Victorian Certificate of Education (VCE)

Introduction

The VCE (Victorian Certificate of Education) is a two-year course administered by the Victorian Curriculum and Assessment Authority (VCAA: <http://www.vcaa.vic.edu.au/Pages/vce/studies/index.aspx>) undertaken by students in Years 11/12. It is imperative that students consult personnel such as the Careers Counsellor, the Heads of Learning and Subject Coordinators, the VCE Coordinator and the Head of Curriculum - Secondary to gain advice and make informed decisions.

Hume Anglican Grammar must abide by the rules set by VCAA pertaining to the submission of work, examination procedures and prerequisite curriculum rules in order for students to be eligible for satisfactory completion of their VCE certificate and to obtain an ATAR (see VTAC: <http://www.vtac.edu.au/>).

It is important to understand the difference between a study (subject) and a unit (semester). Most studies are made up of four units. Units 1 and 2 are usually undertaken in the first year and Units 3 and 4 are usually undertaken in the second year of the VCE program. A unit represents about 100 hours of work (of which 50-60 hours will be class time) and is undertaken in one semester or half year.

Graduation Requirements

Over the two years of the VCE program, most students will complete a total of 24 units. To be awarded the VCE, students must satisfactorily complete at least 16 units:

- three units of English – must include unit 3 and 4
- three sequences of Units 3 and 4 studies other than English.

Students then have considerable choice over the units and the mix of units 1, 2, 3 and 4 they attempt. Tertiary entry is largely based on performance in up to six sequences of Units 3 and 4 studies.

Unit outcomes and satisfactory completion

Each unit includes a set of two to four outcomes. All of the requirements of each unit must be achieved for satisfactory completion of the unit. Achievement of the outcomes is based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

The GAT

The General Achievement Test (GAT) is a test of knowledge and skills in the following areas:

- Written Communication
- Mathematics, Science, and Technology
- Humanities, the Arts, and Social Sciences

ALL students undertaking a Unit 3 & 4 sequence must sit the GAT. Because the GAT is a general test, there is no need to do any special preparation for it, apart from completing past GAT papers for practice. It is expected that the content and skills preparation has been completed at school. For example, through past study of subjects such as Humanities, English, Mathematics and Science, students will have built up general knowledge and skills in writing, numeracy and reasoning. These are the sorts of areas that will be tested.

To ensure that the school's assessments are comparable throughout the State, scores for School Assessed Tasks are monitored using the GAT and if necessary assessments will be reviewed by the VCAA. Some universities such as Monash University will use the GAT for the purpose of course selection. The GAT is usually sat in June each year and is administered by the VCAA.

The Subject Selection Process

Choosing a suitable course:

With all the available support, the most important part of the subject selection process is for students to choose an appropriate program of study from the courses available to them through the School or other external providers.

What should students consider in this process?

- Gather information about the VCE subjects on offer at Hume Anglican Grammar
- Consider their strengths as well as their level of interest in the various subject areas available. Students SHOULD NOT select subjects based on teachers/ friends/ scaling
- Think about possible tertiary options that students might follow and establish the prerequisites and other requirements for them at the many institutions
- Think about whether they need a program which guides students more directly into the work force
- Talk to current senior students about the courses which interest them
- Seek advice from relevant staff (see 'Contacts' page of this handbook)
- Visit Open Days and Experience Days offered by many Tertiary Institutions

It is important to invest significant time and energy into this process to ensure that students select a course that will be both challenging and enriching, and one to which they will be fully committed. We provide a plethora of opportunities in a community that rewards ambition, enthusiasm, hard work, and, where without doubt, everyone enjoys themselves. Even more importantly, we desire our community to be a place where honesty and mutual respect are expected. We look forward to assisting students at this important time in the process of course selection for your final years of Secondary education.

University Subjects

It is possible for talented students to undertake a first year university subject. These subjects can be credited towards a student's ATAR as a sixth VCE subject. Students must make an application directly to the university on the correct forms at the end of Year 11. They must be very strong academically in all subjects and must also be completing the appropriate Unit 3 and 4 subject. For example, if a student studies first year Biology at Melbourne University, they must also be studying Unit 3 & 4 Biology.

Acceptance into any university subject is at the discretion of the university. These subjects are not taught at School. Parents will need to pay the associated fees plus any other expenses attached to the course.

Distance Education

Students may, under advisement, take a subject that the School does not offer by Distance Education. Students who are enrolled at Hume Anglican Grammar must enrol through the School as their home school. Parents will pay the associated fees as arranged. Studying via distance education requires a significant amount of autonomy, initiative and commitment by the student. As such, application to study via distance education will be according to similar prerequisites as accelerated subjects. Prerequisites are designed to enable the student to achieve success in the study, hence, academic results as well as indicators of the student's capacity to maintain a solid work ethic are considered. Indicators of work ethic include academic detentions, attendance, class participation and behaviour.

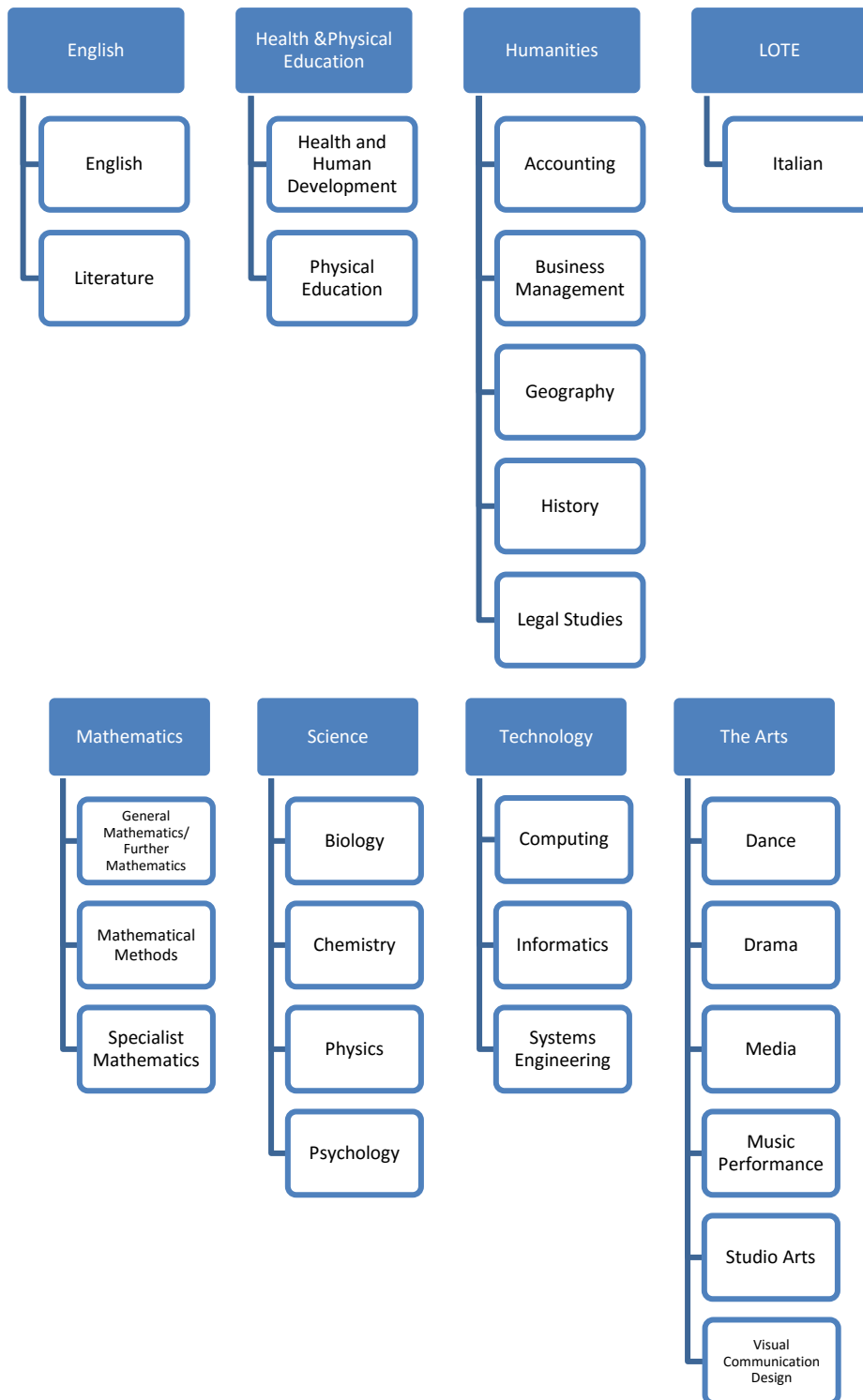
Acceleration

Students entering Year 11 have the opportunity to apply to study a Unit 3 and 4 sequence at an accelerated level. Acceleration will generally only be considered for students who have previously studied a Unit 1 and 2 sequence in Year 10 or are performing at an exceptionally high level in subjects related to their chosen study. If the accelerated study prohibits the student from studying a meaningful Year 11 course, then the Unit 1 and 2 subjects will take precedence. All discussions and applications for acceleration need to be discussed with the Head of Curriculum and the appropriate application process will need to be followed.

Key Dates

Date	Action	Personnel/ Contact
Week 2 Tuesday 24 July	Carefully read the curriculum guides available online	See 'Contacts' page
Week 2 Thursday 26 July	Year 11 2019: Attend Subject Selection Expo for detailed information, 6pm-8pm	Contact: Head of Curriculum Mrs Lydia Abendschein
Week 3 Friday 3 August	Web Preferences open online	Head of Curriculum Mrs Lydia Abendschein Academic Officer Mrs Beverley Nichols
Week 2-4	Year 10 Subject Counselling for Year 11 2019 (conducted during Homeroom Pastoral Care sessions)	Contact: Head of Curriculum Mrs Lydia Abendschein Careers Counsellor Mr David Adamson
Week 5 – Friday 17 August	Web preferences close. Submit receipt printout to Secondary Reception. Final day to discuss acceleration.	Head of Curriculum Mrs Lydia Abendschein

Overview of Subject Offerings in the VCE



Accounting

Unit 1: 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.

Area of Study 1: The Role of Accounting

Area of Study 2: Recording Financial Data and Reporting Accounting Information for a Service Business

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.

Area of Study 1: Accounting for Inventory

Area of Study 2: Accounting for and managing accounts receivable and accounts payable

Area of Study 3: Accounting for and managing non-current assets

Prerequisites

No prerequisites exist for Year 11 students.

Methods of Assessment

- Structured questions;
- Folio of exercises (manual and ICT);
- Case studies (manual and/or ICT);
- Tests (manual and/or ICT);
- Reports (written, oral or multimedia);
- End of semester examinations.

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

Area of Study 1: Recording and analysing financial data

Area of Study 2: Preparing and interpreting accounting reports

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

Area of Study 1: Extension of recording and reporting

Area of Study 2: Budgeting and decision-making

Prerequisites

No prerequisites exist for Year 12 students.

Methods of Assessment

- Case study analysis;
- ICT exercises;
- Tests;
- Analytical exercises;
- Media analysis;
- Investigation and report (written, visual, oral);
- External end-of-year examination.

Biology

Unit 1: How do living things stay alive?

In this unit students are introduced to some of the challenges to an organism in sustaining life. Students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, and the requirements for sustaining cellular processes in terms of inputs and outputs. They analyse types of adaptations that enhance the organism's survival in a particular environment and consider the role homeostatic mechanisms play in maintaining the internal environment. Students investigate how a diverse group of organisms form a living interconnected community that is adapted to, and utilises, the abiotic resources of its habitat. Students consider how the planet's biodiversity is classified and the factors that affect the growth of a population. A student practical investigation related to the survival of an organism or species is undertaken in Area of Study 3.

Area of study 1: How do organisms function?

Area of Study 2: How do living systems sustain life?

Area of Study 3: Practical investigation

Unit 2: How is continuity of life maintained?

In this unit students focus on cell reproduction and the transmission of biological information from generation to generation. Students learn that all cells are derived from pre-existing cells through the cell cycle. They examine the process of DNA replication and compare cell division in both prokaryotic and eukaryotic organisms. The role of stem cells in the differentiation, growth, repair and replacement of cells in humans is examined, and their potential use in medical therapies is considered. Students use chromosome theory and terminology from classical genetics to explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. They explore the relationship between genes, the environment and the regulation of genes in giving rise to phenotypes. They consider the role of genetic knowledge in decision making about the inheritance of autosomal dominant, autosomal recessive and sex-linked genetic conditions. A student-directed research investigation into, and communication of, an issue related to genetics and/or reproductive science is to be undertaken in Area of Study 3.

Area of Study 1: How does reproduction maintain the continuity of life?

Area of Study 2: How is inheritance explained?

Area of Study 3: Investigation of an issue

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Report of fieldwork studies, practical activities and student-designed or adapted investigation;
- Bioinformatics exercise;
- Reflective learning journal;
- Media response;
- Data analysis;
- Test;
- End of semester examinations.

Unit 3: How do cells maintain life?

In this unit students investigate the workings of the cell from several perspectives. They explore the importance of the insolubility of the plasma membrane in water and its differential permeability to specific solutes in defining the cell, its internal spaces and the control of the movement of molecules and ions in and out of such spaces. Students consider base pairing specificity, the binding of enzymes and substrates, the response of receptors to signalling molecules and reactions between antigens and antibodies to highlight the importance of molecular interactions based on the complementary nature of specific molecules. Students study the synthesis, structure and function of nucleic acids and proteins as key molecules in cellular processes. They explore the chemistry of cells by examining the nature of biochemical pathways, their components and energy transformations. Students consider the types of signals, the transduction of information within the cell and cellular responses. At this molecular level, students study the human immune system and interactions between its components to provide immunity to a specific antigen.

Area of Study 1: How do cellular processes work?

Area of Study 2: How do cells communicate?

Unit 4: How does life change and respond to challenges over time?

In this unit students consider the continual change and challenges to which life on Earth has been subjected. They investigate the relatedness between species and the impact of various change events on a population's gene pool. The accumulation of changes over time is considered as a mechanism for biological evolution by natural selection that leads to the rise of new species. Students examine change in life forms using evidence from palaeontology, biogeography, developmental biology and structural morphology. They explore how technological developments in the fields of comparative genomics, molecular homology and bioinformatics have resulted in evidence of change through measurements of relatedness between species. Students examine the structural and cognitive trends in the human fossil record and the interrelationships between human biological and cultural evolution. The biological consequences, and social and ethical implications, of manipulating the DNA molecule and applying biotechnologies is explored for both the individual and the species.

Area of Study 1: How are species related?

Area of Study 2: How do humans impact on biological processes?

Area of Study 3: Practical investigation

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Report of practical activities and student-designed or adapted investigation;
- Bioinformatics exercise;
- Data analysis;
- Structured questions;
- External end-of-year examination.

Business Management

Unit 1: Planning a Business

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

Area of study 1: The business idea

Area of study 2: External environment

Area of study 3: Internal environment

Unit 2: Establishing a Business

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

Area of study 1: Legal requirements and financial considerations

Area of study 2: Managing a business

Area of study 3: Staffing a business

Prerequisites

No prerequisites exist for Year 11 students.

Methods of Assessment

- Case study analysis;
- Development of a business plan;
- School-based, short-term business activity;
- Tests;
- Analytical exercises;
- Media analysis;
- Investigation and report (written, visual, oral);
- End of semester examinations.

Unit 3: Managing a Business

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

Area of study 1: Business foundations

Area of study 2: Managing employees

Area of study 3: Operations management

Unit 4: Transforming Business

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

Area of study 1: Reviewing performance – the need for change

Area of study 2: Implementing change

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Case study analysis;
- Development of a business plan;
- School-based, short-term business activity;
- Tests;
- Analytical exercises;
- Media analysis;
- Investigation and report (written, visual, oral);
- External end-of-year examination.

Chemistry

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

In this unit students investigate the chemical properties of a range of materials from metals and salts to polymers and nanomaterials. Using their knowledge of elements and atomic structure students explore and explain the relationships between properties, structure and bonding forces within and between particles that vary in size from the visible, through nanoparticles, to molecules and atoms. Students examine the modification of metals, assess the factors that affect the formation of ionic crystals and investigate a range of non-metallic substances from molecules to polymers and giant lattices and relate their structures to specific applications. Students are introduced to quantitative concepts in chemistry including the mole concept. They apply their knowledge to determine the relative masses of elements and the composition of substances. Throughout the unit 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.

Area of Study 1 How can knowledge of elements explain the properties of matter?

Area of Study 2 How can the versatility of non-metals be explained?

Area of Study 3 Research investigation

Unit 2: What makes water such a unique chemical?

In this unit students explore the physical and chemical properties of water, the reactions that occur in water and various methods of water analysis. Students examine the polar nature of a water molecule and the intermolecular forces between water molecules. They explore the relationship between these bonding forces and the physical and chemical properties of water. In this context students investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. Students are introduced to stoichiometry and to analytical techniques and instrumental procedures, and apply these to determine concentrations of different species in water samples, including chemical contaminants. Students explore the solvent properties of water in a variety of contexts and analyse selected issues associated with substances dissolved in water.

Area of Study 1 How do substances interact with water?

Area of Study 2 How are substances in water measured and analysed?

Area of Study 3 Practical investigation

Prerequisites

There are no prerequisites.

Methods of Assessment

- Report of practical activities, student-designed or adapted investigation and independent research investigation;
- Modelling activity;
- Reflective learning journal;
- Media response;
- Data analysis;
- Test;
- End of semester examinations.

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

In this unit students explore energy options and the chemical production of materials with reference to efficiencies, renewability and the minimisation of their impact on the environment. Students compare and evaluate different chemical energy resources, including fossil fuels, biofuels, galvanic cells and fuel cells. They investigate the combustion of fuels, including the energy transformations involved, the use of stoichiometry to calculate the amounts of reactants and products involved in the reactions, and calculations of the amounts of energy released and their representations. Students consider the purpose, design and operating principles of galvanic cells, fuel cells and electrolytic cells. In this context they use the electrochemical series to predict and write half and overall redox equations, and apply Faraday's laws to calculate quantities in electrolytic reactions. They investigate and apply the equilibrium law and Le Chatelier's principle to different reaction systems, including to predict and explain the conditions that will improve the efficiency and percentage yield of chemical processes.

Area of Study 1: What are the options for energy production?

Area of Study 2: How can the yield of a chemical product be optimised?

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

In this unit students investigate the structural features, bonding, typical reactions and uses of the major families of organic compounds including those found in food. Students study the ways in which organic structures are represented and named. They process data from instrumental analyses of organic compounds to confirm or deduce organic structures, and perform volumetric analyses to determine the concentrations of organic chemicals in mixtures. Students consider the nature of the reactions involved to predict the products of reaction pathways and to design pathways to produce particular compounds from given starting materials. Students investigate key food molecules through an exploration of their chemical structures, the hydrolytic reactions in which they are broken down and the condensation reactions in which they are rebuilt to form new molecules.

Area of Study 1: How can the diversity of carbon compounds be explained and categorised?

Area of Study 2: What is the chemistry of food?

Area of Study 3: Practical investigation

Prerequisites

There are no prerequisites for Year 12 students, however, the study of Chemistry Unit 1&2 is highly recommended.

Methods of Assessment

- Report of practical activities, student-designed or adapted investigation and independent research investigation;
- Modelling activity;
- Structured questions;
- External end-of-year examination.

Computing

Unit 1: Computing

In this unit students focus on how data, information and networked digital systems can be used to meet a range of users' current and future needs. In Area of Study 1 students collect primary data when investigating an issue, practice or event and create a digital solution that graphically presents the findings of the investigation. In Area of Study 2 students examine the technical underpinnings of wireless and mobile networks, and security controls to protect stored and transmitted data, to design a network solution that meets an identified need or opportunity. They predict the impact on users if the network solution were implemented. In Area of Study 3 students acquire and apply their knowledge of information architecture and user interfaces, together with web authoring skills, when creating a website to present different viewpoints on a contemporary issue. When creating solutions students need to apply relevant stages of the problem-solving methodology as well as computational, design and systems thinking skills.

Area of Study 1: Data and graphic solutions

Area of Study 2: Networks

Area of Study 3: Collaboration and communication

Unit 2: Computing

In this unit students focus on data and how the application of computational, design and systems thinking skills support the creation of solutions that automate the processing of data. In Area of Study 1 students develop their computational thinking skills when using a programming or scripting language to create solutions. They engage in the design and development stages of the problem-solving methodology. In Area of Study 2 students develop a sound understanding of data and how a range of software tools can be used to extract data from large repositories and manipulate it to create visualisations that are clear, usable and attractive, and reduce the complexity of data. In Area of Study 3 students apply all stages of the problem-solving methodology to create a solution using database management software and explain how they are personally affected by their interactions with a database system.

Area of Study 1: Programming

Area of Study 2: Data analysis and visualisation

Area of Study 3: Data management

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions;
- Project work and group work tasks;
- Tests;
- End of semester examinations.

Dance

Unit 1: Dance

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. They apply this knowledge through regular and systematic dance training. Students explore the choreographic process through movement studies, cohesive dance compositions and performances. They discuss influences on other choreographers and the impact of these influences on intentions and movement vocabulary in selected dance works.

Area of study 1: Dance perspectives

Area of study 2: Choreography and performance

Area of study 3: Dance technique and performance

Area of study 4: Awareness and maintenance of the dancer's body

Unit 2: Dance

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. Students may also study material such as dance from other cultures, music theatre, the work of tap/jazz or street performers, ballet choreographers, and/or modern dance.

Students describe the movement vocabulary in their own and others' dances by identifying the use of movement categories and ways the elements of movement have been manipulated through the use of choreographic devices. Students make links between the theoretical and practical aspects of dance across the areas of study through analysis and discussion of the way their own and other choreographers' intentions are communicated, and through the ways movement has been manipulated and structured.

Area of study 1: Dance perspectives

Area of study 2: Choreography, performance

Area of study 3: Dance technique and performance

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions;
- Performance;
- End of semester examinations.

Unit 3: Dance

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.

Students further develop their understanding of the choreographic process through analysis of two dance works by choreographers of the twentieth and/or twenty-first centuries. These dance works must be selected from the Prescribed list of dance works for Unit 3. The Prescribed list for Unit 3 includes solo works, duos and works where the performance of a particular dancer in a group can be studied independently. Students analyse how the intentions chosen by choreographers are developed through the use of choreographic devices and arrangement of phrases and sections. They analyse the dance design and use of movement vocabulary in the selected works and consider influences on the choreographers' choices of intention, movement vocabulary and production aspects of the dance works. Students consider the influence these choreographers and/or the selected dance works have had on the arts, artists and/or society.

Area of study 1: Dance perspectives

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

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

Unit 4: Dance

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.

Students continue to develop their understanding of the choreographic process through analysis of a group dance work by a twentieth or twenty-first century choreographer. This analysis focuses on ways in which the intention is expressed through the manipulation of spatial relationships. Students analyse the use of group structures (canon, contrast, unison, and asymmetrical and symmetrical groupings and relationships) and spatial organisation (direction, level, focus and dimension) and investigate the influences on choices made by choreographers in these works.

Area of study 1: Dance perspectives

Area of study 2: Choreography, performance and dance-making analysis

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Structured questions;
- Performance;
- External end-of-year examination.

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.

Students apply play-making techniques to shape and give meaning to their performance. They manipulate expressive and performance skills in the creation and presentation of characters, and develop awareness and understanding of how characters are portrayed in a range of performance styles. They document the processes they use as they explore a range of stimulus material, and experiment with production areas, dramatic elements, conventions and performance styles.

Area of study 1: Creating a devised performance

Area of study 2: Presenting a devised performance

Area of study 3: Analysing a devised performance

Area of study 4: Analysing a professional drama performance

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.

In creating the performance, students use stimulus material that allows them to explore an aspect or aspects of Australian identity. They examine selected performance styles and explore the associated conventions. Students further develop their knowledge of the conventions of transformation of character, time and place, the application of symbol, and how these conventions may be manipulated to create meaning in performance and the use of dramatic elements and production areas. Students analyse their own performance work as well as undertaking an analysis of a performance of an Australian work, where possible, by professional actors. Across this unit, students study performance styles from a range of historical and/or social and/or cultural contexts.

Area of study 1: Using Australia as inspiration

Area of study 2: Presenting a devised performance

Area of study 3: Analysing a devised performance

Area of study 4: Analysing an Australian drama performance

Prerequisites

There are no prerequisites.

Methods of Assessment

- Structured questions;
- Performance;
- End of semester examinations.

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.

Area of study 1: Devising and presenting ensemble performance

Area of study 2: Analysing a devised ensemble performance

Area of study 3: Analysing and evaluating a professional drama performance

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.

Area of study 1: Demonstrating techniques of solo performance

Area of study 2: Devising a solo performance

Area of study 3: Analysing and evaluating a devised solo performance

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2

Methods of Assessment

- Structured questions;
- Performance;
- External end-of-year examination.

English

Unit 1: English

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

Area of Study 1: Reading and creating texts

Area of Study 2: Analysing and presenting argument

Unit 2: English

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

Area of Study 1: Reading and comparing texts

Area of Study 2: Analysing and presenting argument

Prerequisites

There are no prerequisites.

Methods of Assessment

- Persuasive oral with statement of intention;
- Written analysis of Argument;
- Creative writing pieces;
- Text response essays;
- Comparative essays;
- End of semester examinations.

Unit 3: English

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

Area of Study 1: Reading and creating texts

Area of Study 2: Analysing argument

Unit 4: English

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

Area of Study 1: Reading and comparing texts

Area of Study 2: Presenting argument

Prerequisites

English or Literature Unit 1&2

Methods of Assessment

- Persuasive oral with statement of intention;
- Comparative analysis of Argument;
- Creative writing pieces;
- Text response essays;
- Comparative essays;
- External end-of-year examination.

Geography

Unit 1: Hazards and Disasters

In this unit students undertake an overview of hazards before investigating two contrasting types of hazards (Wildfires and Earthquakes) and the responses to them by people. Hazards represent the potential to cause harm to people and or the environment whereas disasters are judgments about the impacts of hazard events. 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 examine the processes involved with hazards and hazard events, including their causes and impacts, human responses to hazard events and interconnections between human activities and natural phenomena. This unit investigates how people have responded to specific types of hazards, including attempts to reduce vulnerability to, and the impact of, hazard events. Students will participate in fieldwork as part of this unit.

Area of study 1: The Characteristics of Hazards

Area of study 2: Responses to hazards and disasters

Unit 2: Tourism

In this unit students investigate the characteristics of tourism, with particular emphasis on where it has developed, its various forms, how it has changed and continues to change and its impacts on people, places and environments. They select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. The study of tourism at local, regional and global scales emphasises the interconnection within and between places. For example, the interconnections of climate, landforms and culture 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, together with cultural preservation and acculturation. The growth of tourism at all scales requires careful management to ensure environmentally sustainable and economically viable tourism. Students will participate in fieldwork as part of this unit.

Area of study 1: Characteristics of tourism

Area of study 2: Impacts of tourism

Prerequisites

No prerequisites exist for Year 11 students.

Methods of Assessment

- A fieldwork report;
- Structured questions;
- A case study report;
- A folio of exercises;
- End of semester examinations.

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. It takes the view that health and wellbeing are subject to a wide range of contexts and interpretations, with different meanings for different people. As a foundation to the understanding of health, students should investigate the World Health Organization's (WHO) definition and also 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.

Area of study 1: Health perspectives and influences

Area of study 2: Health and nutrition

Area of study 3: Youth health and wellbeing

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.

Area of study 1: Developmental transitions

Area of study 2: Health care in Australia

Prerequisites

No prerequisites exist for Year 11 students.

Methods of Assessment

- Multi-media presentations;
- Tests;
- Data analysis tasks;
- Posters;
- Case study analysis;
- End of semester examinations.

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.

Area of study 1: Understanding health and wellbeing

Area of study 2: Promoting health and wellbeing

Unit 4: Health and human development in a global context

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

Area of study 1: Health and wellbeing in a global context

Area of study 2: Health and sustainable development goals

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Tests;
- Oral presentations;
- Data analysis and case study analysis;
- External end-of-year examination.

History

Unit 1: Twentieth Century History 1918–1939

In Unit 1 students explore the nature of political, social and cultural change in the period between the world wars. 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. These changes affected developments in Europe, the USA, Asia, Africa and the Middle East. Economic instability caused by the Great Depression also contributed to the development of political movements. Despite ideals about future peace, reflected in the establishment of the League of Nations, the world was again overtaken by war in 1939. The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. In Germany, the persecution of the Jewish people became intensified. In the USSR, millions of people were forced to work in state-owned factories and farms and had limited personal freedom. Japan became increasingly militarised and anti-western. In the USA, the consumerism and material progress of the 1920s was tempered by the Great Crash of 1929. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political, economic and social changes.

Area of Study 1: Ideology and conflict

Area of Study 2: Social and cultural change

Unit 2: Twentieth Century History 1945–2000

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century. The establishment of the United Nations 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. Despite internationalist moves, the second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War. New countries were created and independence was achieved through both military and diplomatic means. Old conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

Area of Study 1: Competing ideologies

Area of Study 2: Challenge and change

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Historical inquiry;
- Analysis of primary sources;
- Analysis of historical interpretations;
- Essay;
- End of semester examination.

Unit 3 and 4: History – Revolutions (Two choices out of American, Chinese, French and Russian)

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. Progress 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.

Area of Study 1: Unit 3 and Unit 4 Causes of revolution

Area of Study 2: Unit 3 and Unit 4 Consequences of revolution

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Historical inquiry;
- Analysis of primary sources;
- Analysis of historical interpretations;
- Essay;
- External end-of-year examination.

Informatics

Unit 3: Informatics

In Informatics Units 3 and 4 students focus on data, information and information systems. In Unit 3 students consider data and how it is acquired, managed, manipulated and interpreted to meet a range of needs. In Area of Study 1 students investigate the way organisations acquire data using interactive online solutions, such as websites and applications (apps), and consider how users interact with these solutions when conducting online transactions. They examine how relational database management systems (RDBMS) store and manipulate data typically acquired this way. Students use software to create user flow diagrams that depict how users interact with online solutions, and acquire and apply knowledge and skills in the use of an RDBMS to create a solution. Students develop an understanding of the power and risks of using complex data as a basis for decision making. In Area of Study 2 students complete the first part of a project. They frame a hypothesis and then select, acquire and organise data from multiple data sets to confirm or refute this hypothesis. This data is manipulated using tools such as spreadsheets or databases to help analyse and interpret it so that students can form a conclusion regarding their hypothesis.

Area of Study 1: Data & Graphic Solutions

Area of Study 2: Networks

Area of Study 3: Collaboration and Communication

Unit 4: Informatics

In this unit students focus on strategies and techniques for manipulating, managing and securing data and information to meet a range of needs. In Area of Study 1 students draw on the analysis and conclusion of their hypothesis determined in Unit 3, Outcome 2, and then design, develop and evaluate a multimodal, online solution that effectively communicates the conclusion and findings. The evaluation focuses on the effectiveness of the solution in communicating the conclusion and the reasonableness of the findings. Students use their project plan to monitor their progress and assess the effectiveness of their plan and adjustments in managing the project. In Area of Study 2, students explore how different organisations manage the storage and disposal of data and information to minimise threats to the integrity and security of data and information and to optimise the handling of information.

Area of Study 1: Programming

Area of Study 2: Data Analysis & Visualisations

Area of Study 3: Data Management

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Computing Units 1 & 2.

Methods of Assessment

- Structured questions;
- Project work and group work tasks;
- External end-of-year examination.

Italian

Unit 1: Italian

In this unit students develop an understanding of the language and culture/s of Italian-speaking communities through the study of three or more topics from the prescribed themes listed on page 11. Each area of study in the unit must focus on a different subtopic. Students access and share useful information on the topics and subtopics through Italian 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 can 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 Italian culture and language to new contexts. 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.

Area of Study 1: Interpersonal Communication

Area of Study 2: Interpretive Communication

Area of Study 3: Presentational Communication

Unit 2: Italian

In this unit students develop an understanding of aspects of language and culture through the study of three or more topics from the prescribed themes listed on page 11. Each area of study must focus on a different subtopic. Students analyse visual, spoken and written texts. They access and share useful information on the topics and subtopics through Italian 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.

Area of Study 1: Interpersonal Communication

Area of Study 2: Interpretive Communication

Area of Study 3: Presentational Communication

Prerequisites

Students need to have studied Year 10 Italian or equivalent.

Methods of Assessment

- Personal, imaginative, persuasive, informative and evaluative written responses;
- Class and interview style oral presentations;
- Evaluate opposing arguments as well as interpreting written and visual texts;
- Interpreting authentic aural samples;
- End of semester examination.

Legal Studies

Unit 1: Guilt and Liability

Criminal law and civil law aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order and infringing criminal law can result in charges. Civil law deals with the infringement of a person's or group's rights and breaching civil law can result in litigation. Students develop an understanding of legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria. Students investigate key concepts of criminal law and civil law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. In doing so, students develop an appreciation of the way in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused, and the liability of a party in a civil dispute.

Area of Study 1: Legal Foundations

Area of Study 2: The Presumption of Innocence

Area of Study 3: Civil Liability

Unit 2: Sanctions, Remedies and Rights

Criminal law and civil law aim to protect the rights of individuals. When rights are infringed, a case or dispute may arise which needs to be determined or resolved, and sanctions or remedies may be imposed. This unit focuses on the enforcement of criminal law and civil law, the methods and institutions that may be used to determine a criminal case or resolve a civil dispute, and the purposes and types of sanctions and remedies and their effectiveness. Students undertake a detailed investigation of two criminal cases and two civil cases from the past four years to form a judgment about the ability of sanctions and remedies to achieve the principles of justice. Students develop their understanding of the way rights are protected in Australia and in another country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

Area of Study 1: Sanctions

Area of Study 2: Remedies

Area of Study 3: Rights

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Folios;
- Structured questions;
- Essays / Reports (written and multimedia);
- Case studies;
- Class presentations;
- End of semester examinations.

Unit 3: Rights and Justice

The Victorian justice system, which includes the criminal and civil justice systems, aims to protect the rights of individuals and uphold the principles of justice: fairness, equality and access. In this unit students examine the methods and institutions in the justice system and consider their appropriateness in determining criminal cases and resolving civil disputes. Students consider the Magistrates' Court, County Court and Supreme Court within the Victorian court hierarchy, as well as other Victorian legal institutions and bodies available to assist with cases. Students explore matters such as the rights available to an accused and to victims in the criminal justice system, the roles of the judge, jury, legal practitioners and the parties, and the ability of sanctions and remedies to achieve their purposes. Students investigate the extent to which the principles of justice are upheld in the justice system. They discuss recent reforms from the past four years and recommended reforms to enhance the ability of the justice system to achieve the principles of justice. Throughout this unit, students apply legal reasoning and information to actual and/or hypothetical scenarios.

Area of Study 1: The Victorian Criminal Justice System

Area of Study 2: The Victorian Civil Justice System

Unit 4: The People and the Law

The study of Australia's laws and legal system involves an understanding of institutions that make and reform our laws, and the relationship between the Australian people, the Australian Constitution and law-making bodies. In this unit, students explore how the Australian Constitution establishes the law-making powers of the Commonwealth and state parliaments, and protects the Australian people through structures that act as a check on parliament in law-making. Students develop an understanding of the significance of the High Court in protecting and interpreting the Australian Constitution. They investigate parliament and the courts, and the relationship between the two in law-making, and consider the roles of the individual, the media and law reform bodies in influencing law reform. Throughout this unit, students apply legal reasoning and information to actual scenarios.

Area of Study 1: The People and the Australian Constitution

Area of Study 2: The People, the Parliament and the Courts

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1&2.

Methods of Assessment

- Folios;
- Structured questions;
- Essays / reports (written and multimedia);
- Case studies;
- Class presentations;
- External end-of-year examination.

Literature

Unit 1: Approaches to Literature

In this unit students focus on the ways in which the interaction between text and reader creates meaning. Students' analyses 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 how texts function as representations of human experience. 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.

Area of Study 1: Reading practices

Area of Study 2: Ideas and concerns in texts

Unit 2: Context and connections

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. Drawing on a range of literary texts, students consider the relationships between authors, audiences and contexts. Ideas, language and structures of different texts from past and present eras and/or cultures are compared and contrasted. Students analyse the similarities and differences across texts and establish connections between them. They engage in 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.

Area of Study 1: The text, the reader and their contexts

Area of Study 2: Exploring connections between texts

Prerequisites

There are no prerequisites.

Methods of Assessment

- Oral analysis and report;
- Creative writing pieces;
- Essays;
- End of semester examinations.

Unit 3: Form and transformation

In this unit students consider how the form of a text affects meaning, and how writers construct their texts. They investigate ways writers adapt and transform texts and how meaning is affected as texts are adapted and transformed. They consider how the perspectives of those adapting texts may inform or influence the adaptations. Students draw on their study of adaptations and transformations to develop creative responses to texts. Students develop their skills in communicating ideas in both written and oral forms.

Area of Study 1: Adaptations and transformations

Area of Study 2: Creative responses to texts

Unit 4: Interpreting texts

In this unit students develop critical and analytic responses to texts. They consider the context of their responses to texts as well as the ideas explored in the texts, the style of the language and points of view. They investigate literary criticism informing both the reading and writing of texts. Students develop an informed and sustained interpretation supported by close textual analysis. For the purposes of this unit, literary criticism is characterised by extended, informed and substantiated views on texts and may include reviews, peer-reviewed articles and transcripts of speeches. Specifically, for Unit 4 Outcome 1, the literary criticism selected must reflect different perspectives, assumptions and ideas about the views and values of the text/s studied.

Area of Study 1: Literary perspectives

Area of Study 2: Close analysis

Prerequisites

Literature or English Unit 1 & 2.

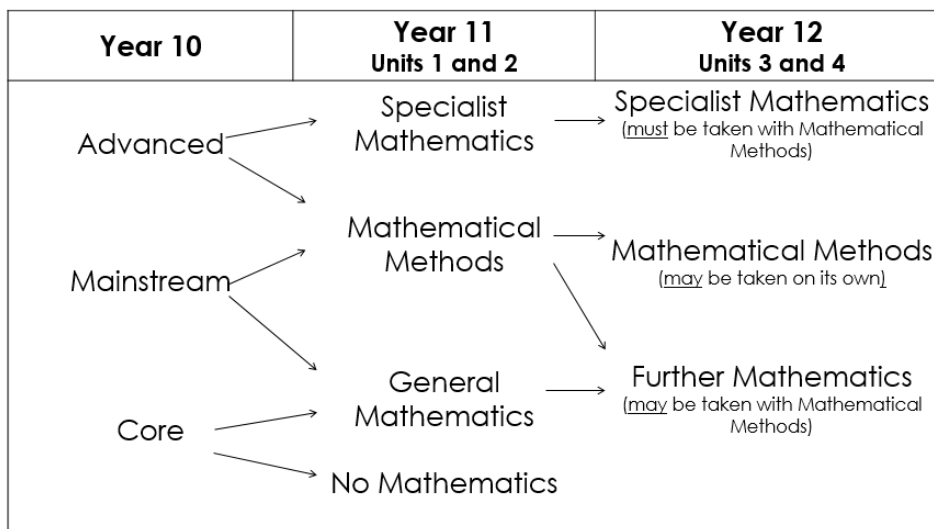
Methods of Assessment

- Oral analysis and report;
- Creative writing pieces;
- Essays;
- External end-of-year examination.

Mathematics

Choosing an appropriate Mathematics course at the end of Year 10

The following Table illustrates the complexity of the available Mathematics Pathways through the VCE.



For entry into Mathematical Methods Unit 1 and 2 and Specialist Mathematics Unit 1 and 2 please refer to the recommended entry scores below. Each student in Year 10 will be given a recommendation regarding the most suitable Mathematics pathway before the subject selection process into Year 11.

Recommendation for Year 11	Criteria
No Mathematics at VCE	Test Average and Examination below 25%
General Mathematics Unit 1 and 2	Test Average and Examination above 25%
Mathematical Methods Unit 1 and 2	Test Average and Examination above 70%
Specialist Mathematics Unit 1 and 2	Test Average and Examination above 85%
Acceleration Further Mathematics Unit 3&4 in Year 11	Test Average and Examination above 80% Students need to demonstrate a strong commitment to their studies. Applications will be considered individually.

Please note that each student is considered individually and recommendations are made at the teacher's discretion.

General Mathematics

A readily accessible course, General Mathematics is designed to provide for different combinations of student interests and preparation for study of VCE Mathematics at the Unit 3 and 4 level. The focus of this course is on more immediately applicable concepts and processes and provides a background for many employment related mathematical skills. Students who perform well in this course are able to proceed into Further Mathematics Units 3 and 4 in Year 12.

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

Unit 1: General Mathematics

Area of Study 1: Algebra and Structure (Linear Relations and Equations)

Area of Study 2: Arithmetic and Number (Computation and Practical Arithmetic)

Area of Study 3: Discrete Mathematics (Matrices)

Area of Study 5: Graphs of Linear and Non-Linear Relations (Linear Graphs and Models; Inequalities and Linear Programming)

Unit 2: General Mathematics

Area of Study 2: Arithmetic and Number (Financial Arithmetic)

Area of Study 3: Discrete Mathematics (Number Patterns and Recursion)

Area of Study 6: Statistics (Investigating and Comparing Data Distributions, Investigating Relationships between two Numerical Variables)

Entry

There are no prerequisites.

Methods of Assessments

- Topic tests;
- Modelling and problem-solving tasks;
- End of semester examinations.

Further Mathematics

Further Mathematics consists of two areas of study, a compulsory Core area of study to be completed in Unit 3 and an Applications area of study to be completed in Unit 4. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, and graphs. They should have a facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic, financial and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is to be incorporated throughout each unit as applicable.

Unit 3: Core Modules

Area of Study 1: Core (Data Analysis, Recursion and Financial Modelling)

Unit 4: Applications Modules

Area of Study 2: Applications (Matrices, Graphs and Relations)

Prerequisites

There are no prerequisites for Year 12 students.

Methods of Assessments

- Data analysis application task;
- Recursion and financial modelling problem-solving task;
- Matrices problem-solving task;
- Graphs and relations problem-solving task;
- External end-of-year examination.

Mathematical Methods

Unit 1: Mathematical Methods

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

At the end of Unit 1, students are expected to have covered the content outlined in each area of study, with the exception of 'Algebra' which extends across Units 1 and 2. In undertaking this unit, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs and differentiation with and without the use of technology. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, will be incorporated throughout the unit as applicable.

Area of Study 1: Functions and graphs

Area of Study 2: Algebra

Area of Study 3: Calculus

Area of Study 4: Probability and statistics

Unit 2: Mathematical Methods

In Unit 2 students focus on the study of simple transcendental functions and the calculus of simple algebraic functions. In undertaking this unit, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation and anti-differentiation with and without the use of technology. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, will be incorporated throughout the unit as applicable.

Area of Study 1: Functions and graphs

Area of Study 2: Algebra

Area of Study 3: Calculus

Area of Study 4: Probability and statistics

Prerequisites

Students need to have studied Year 10 Mainstream or Advanced Mathematics.

Methods of Assessment

- Topic tests;
- Modelling and problem-solving tasks;
- End of semester examinations.

Unit 3&4:

Mathematical Methods Unit 3 and 4 are completely prescribed and extend the introductory study of simple elementary functions of a single real variable, to include combinations of these functions, algebra, calculus, probability and statistics, and their applications in a variety of practical and theoretical contexts. The four areas of study are covered in progression from Unit 3 to Unit 4, with an appropriate selection of content for each of Unit 3 and Unit 4. Assumed knowledge and skills for Mathematical Methods Unit 3 and 4 are contained in Mathematical Methods Unit 1 and 2, and will be drawn on, as applicable, in the development of related content from the areas of study, and key knowledge and skills for the outcomes of Mathematical Methods Unit 3 and 4. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs, differentiation, anti-differentiation, integration and inference with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is incorporated throughout each unit as applicable. For Unit 3 a selection of content includes the areas of study 'Functions and graphs' and 'Algebra', and applications of derivatives and differentiation, and identifying and analysing key features of the functions and their graphs from the 'Calculus' area of study. For Unit 4, this selection consists of remaining content from the areas of study: 'Functions and graphs', 'Calculus' and 'Algebra', and the study of random variables and discrete and continuous probability distributions and the distribution of sample proportions. For Unit 4, the content from the 'Calculus' area of study includes the treatment of anti-differentiation, integration, the relation between integration and the area of regions specified by lines or curves described by the rules of functions, and simple applications of this content.

Area of Study 1: Functions and Graphs

Area of Study 2: Algebra

Area of Study 3: Calculus

Area of Study 4: Probability and Statistics

Prerequisites

Mathematical Methods Unit 1 and 2.

Methods of Assessments

- Functions and calculus application task;
- Functions and calculus problem-solving task;
- Probability and statistics problem-solving task;
- External end-of-year examination.

Specialist Mathematics

Specialist Mathematics Unit 1 and 2 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 and reasoning. This study has a focus on interest in the discipline of mathematics in its own right and investigation of a broad range of applications, as well as development of a sound background for further studies in mathematics and mathematics related fields.

Mathematical Methods Unit 1 and 2 and Specialist Mathematics Unit 1 and 2, taken in conjunction, provide a comprehensive preparation for Specialist Mathematics Units 3 and 4. In undertaking these units, students are expected to be able to apply techniques, routines and processes involving rational, real and complex arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations and graphs with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. The use of numerical, graphical, geometric, symbolic and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, will be incorporated throughout each unit as applicable.

Unit 1: Specialist Mathematics

Area of Study 1 (General Mathematics): Algebra and Structure – Linear Relations and Equations

Area of Study 3 (General Mathematics): Discrete Mathematics – Number Patterns and Recursion

Area of Study 2: Arithmetic and Number – Number Systems and Recursion

Area of Study 4: Geometry, Measurement and Trigonometry – Geometry in the Plane and Proof

Area of Study 6: Statistics – Simulation, Sampling and Sampling Distributions

Unit 2: Specialist Mathematics

Area of Study 1: Algebra and Structure – Transformations, Trigonometry and Matrices

Area of Study 4: Geometry, Measurement and Trigonometry – Vectors in the plane

Area of Study 5: Graphs of Linear and Non-Linear Relations – Graphs of Non-Linear Relations, Kinematics

Prerequisites

These units need to be studied in conjunction with Mathematical Methods Unit 1 and 2.

Students need to have studied Year 10 Mainstream or Advanced Mathematics.

Methods of Assessments

- Topic tests;
- Modelling and problem-solving tasks;
- End of semester examinations.

Unit 3&4:

Specialist Mathematics Units 3 and 4 assumes familiarity with the key knowledge and skills from Mathematical Methods Unit 1 and 2, the key knowledge and skills from Specialist Mathematics Unit 1 and 2 topics 'Number systems and recursion' and 'Geometry in the plane and proof', and concurrent or previous study of Mathematical Methods Units 3 and 4. Together these cover the assumed knowledge and skills for Specialist Mathematics, which are drawn on as applicable in the development of content from the areas of study and key knowledge and skills for the outcomes.

In Unit 3 a study of Specialist Mathematics includes content from 'Functions and graphs' and a selection of material from the 'Algebra', 'Calculus' and 'Vectors' areas of study.

In Unit 4 this selection consists of the remaining content from the 'Algebra', 'Calculus', and 'Vectors' areas of study and the content from the 'Mechanics' and 'Probability and statistics' areas of study.

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

Area of Study 1: Functions and Graphs

Area of Study 2: Algebra

Area of Study 3: Calculus

Area of Study 4: Vectors

Area of Study 5: Mechanics

Area of Study 6: Probability and Statistics

Prerequisites

Mathematical Methods Unit 1 and 2 and Specialist Mathematics Unit 1 and 2.

These units need to be taken in conjunction with Mathematical Methods Unit 3 and 4.

Methods of Assessments

- Vectors and Complex Numbers Application Task;
- Mechanics Problem-Solving Task;
- Calculus Problem-Solving Task;
- External end-of-year examination.

Media

Unit 1: Media forms, representations and Australian stories

In this unit students develop an understanding of audiences and the core concepts underpinning the construction of representations and meaning in different media forms. They explore codes and conventions and the construction of meaning in media products. Students analyse how representations, narrative and media codes and conventions contribute to the construction of the media realities audiences engage with and read. Students gain an understanding of audiences as producers and consumers of media products. They develop research skills to investigate and analyse selected narratives focusing on the influence of media professionals on production genre and style. Students develop an understanding of the features of Australian features and non-fictional narratives in different media forms. Students also work in a range of media forms to develop and produce representations.

Area of study 1: Media representations

Area of study 2: Media forms in production

Area of study 3: Australian stories

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 context. Narratives in both traditional and newer forms include film, television, sound, photography, and interactive digital forms. Students analyse the influence of developments in media technologies on individuals and society, examining in a range of media forms the effects of media convergence. Students undertake production activities to design and create narratives that demonstrate an awareness of the structures and media codes and conventions appropriate to corresponding media forms.

Area of study 1: Narrative, style and genre

Area of study 2: Narratives in production

Area of study 3: Media and change

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions for research and evaluation;
- Practical submissions;
- Essays;
- End of semester examinations.

Unit 3: Media narratives and pre-production

In this unit students explore stories that circulate in society through media narratives. They consider the use of media codes and conventions to structure meaning, and how this construction is influenced by the social, cultural, ideological and institutional contexts of production, distribution, consumption and reception. Students use the pre-production stage of the media production process to design a production for a specified audience. They explore and experiment with media technologies to develop skills in their selected media form. Students undertake pre-production processes appropriate to their selected media form and develop written and visual documentation to support the production and post-production of a media product in Unit 4.

Area of study 1: Narrative and ideology

Area of study 2: Media production development

Area of study 3: Media production design

Unit 4: Media production and issues in the media

In this unit students focus on the production and post-production stages of the media production process, bringing the media production design created in Unit 3 to its realisation. They refine their media production in response to feedback and through personal reflection, documenting iterations of their production as they work towards completion. 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.

Area of study 1: Media production

Area of study 2: Agency and control in and of the media

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Structured questions;
- Essays;
- Research portfolio;
- Production exercises;
- Media production;
- Essays;
- External end-of-year examination.

Music Performance

Unit 1: Music Performance

This unit focuses on building performance and musicianship skills. Students present performances of selected group and solo music works using one or more instruments. They study the work of other performers and explore strategies to optimise their own approach to performance. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and practise technical work to address these challenges. They also develop skills in performing previously unseen music. Students study aural, theory and analysis concepts to develop their musicianship skills and apply this knowledge when preparing and presenting performances.

Area of study 1: Performance

Area of study 2: Preparing for Performance

Area of study 3: Music Language

Unit 2: Music Performance

In this unit students build their performance and musicianship skills. They present performances of selected group and solo music works using one or more instruments. Students study the work of other performers through listening and analysis and use specific strategies to optimise their own approach to performance. They also study strategies for developing technical and expressive performance skills. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and practise related technical work. They develop skills in performing previously unseen music and study specific concepts to build their musicianship knowledge and skills. Students also devise an original composition or improvisation.

Area of study 1: Performance

Area of study 2: Preparing for Performance

Area of study 3: Music Language

Area of study 4: Organisation of sound

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions;
- Performance;
- End of semester examinations.

Unit 3: Music Performance

This unit prepares students to present convincing performances of group and solo works. In this unit students select a program of group and solo works representing a range of styles and diversity of character for performance. They develop instrumental techniques that enable them to interpret the works and expressively shape their performances. They also develop an understanding of performance conventions they can use to enhance their performances. Students develop skills in unprepared performance, aural perception and comprehension, transcription, music theory and analysis. The focus for analysis in Area of Study 3 is works and performances by Australian musicians.

Area of study 1: Performance

Area of study 2: Preparing for Performance

Area of study 3: Music Language

Unit 4: Music Performance

In this unit students refine their ability to present convincing performances of group and solo works. Students select group and solo works that complement works selected in Unit 3. They further develop and refine instrumental and performance techniques that enable them to expressively shape their performance and communicate their understanding of the music style of each work. Students continue to develop skills in aural perception and comprehension, transcription, theory, analysis and unprepared performance. Students continue to study ways in which Australian performers interpret works that have been created since 1910 by Australian composers/songwriters.

Area of study 1: Performance

Area of study 2: Preparing for Performance

Area of study 3: Music Language

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Structured questions;
- Performance;
- External end-of-year examination.

Physical Education

Unit 1: Bodies 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. 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.

Area of study 1: How does the musculoskeletal system work to produce movement?

Area of study 2: How does the cardiorespiratory system function at rest and during physical activity?

Unit 2: Physical activity, sport and society

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 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. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

Area of study 1: What are the relationships between physical activity, sport, health and society?

Area of study 2: What are the contemporary issues associated with physical activity and sport?

Prerequisites

No prerequisites exist for Year 11 students.

Methods of Assessment

- Written reports;
- Practical laboratory report;
- End of semester examinations.

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.

Area of study 1: How are movement skills improved?

Area of study 2: How does the body produce energy?

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.

Area of study 1: What are the foundations of an effective training program?

Area of study 2: How is training implemented effectively to improve fitness?

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Practical laboratory report;
- Data analysis;
- Case study analysis;
- Written reports;
- Tests;
- External end-of-year examination.

Physics

Unit 1: What ideas explain the physical world?

Ideas in physics are dynamic. As physicists explore concepts, theories evolve. Often this requires the detection, description and explanation of things that cannot be seen. In this unit students explore how physics explains phenomena, at various scales, which are not always visible to the unaided human eye. They examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. Students consider thermal concepts by investigating heat, probe common analogies used to explain electricity and consider the origins and formation of matter. Students use thermodynamic principles to explain phenomena related to changes in thermal energy. They apply thermal laws when investigating energy transfers within and between systems, and assess the impact of human use of energy on the environment. Students examine the motion of electrons and explain how it can be manipulated and utilised. They explore current scientifically accepted theories that explain how matter and energy have changed since the origins of the Universe. Students undertake quantitative investigations involving at least one independent, continuous variable.

Area of Study 1: How can thermal effects be explained?

Area of Study 2: How do electric circuits work?

Area of Study 3: What is matter and how is it formed?

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

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

Area of Study 1: How can motion be described and explained?

Area of Study 2: Options

Area of Study 3: Practical investigation

Prerequisites

There are no prerequisites.

Methods of Assessment

- Report of practical activities, explanation of a device, physics phenomenon, and student-designed or adapted investigation;
- Modelling activity – design, construction, testing and evaluation of a device;
- Reflective learning journal;
- Media response;
- Data analysis;
- Tests;
- End of semester examinations.

Unit 3: How do fields explain motion and electricity?

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

Area of Study 1: How do things move without contact?

Area of Study 2: How are fields used to move electrical energy?

Area of Study 3: How fast can things go?

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

A complex interplay exists between theory and experiment in generating models to explain natural phenomena including light. Wave theory has classically been used to explain phenomena related to light; however, continued exploration of light and matter has revealed the particle-like properties of light. On very small scales, light and matter – which initially seem to be quite different – have been observed as having similar properties. In this unit, students explore the use of wave and particle theories to model the properties of light and matter. They examine how the concept of the wave is used to explain the nature of light and explore its limitations in describing light behaviour. Students further investigate light by using a particle model to explain its behaviour. A wave model is also used to explain the behaviour of matter which enables students to consider the relationship between light and matter. Students learn to think beyond the concepts experienced in everyday life to study the physical world from a new perspective. Students design and undertake investigations involving at least two continuous independent variables.

Area of Study 1: How can waves explain the behaviour of light?

Area of Study 2: How are light and matter similar?

Area of Study 3: Practical investigation

Prerequisites

No prerequisites exist for Year 12 students, however, the study of Physics Unit 1&2 is highly recommended.

Methods of Assessment

- Report of practical activities, explanation of a device, physics phenomenon, and student-designed investigation;
- Design, construction, testing and evaluation of a device;
- Reflective learning journal;
- Tests;
- External end-of-year examination.

Psychology

Unit 1: How are behaviour and mental processes shaped?

Human development involves changes in thoughts, feelings and behaviours. 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. They consider the complex nature of psychological development, including situations where psychological development may not occur as expected. Students examine the contribution that classical and contemporary studies have made to an understanding of the human brain and its functions, and to the development of different psychological models and theories used to predict and explain the development of thoughts, feelings and behaviours.

Area of Study 1: How does the brain function?

Area of Study 2: What influences psychological development?

Area of Study 3: Student-directed research investigation

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

A person's thoughts, feelings and behaviours are influenced by a variety of biological, psychological and social factors. In this unit 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. They evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of an individual and groups. They examine the contribution that classical and contemporary research has made to the understanding of human perception and why individuals and groups behave in specific ways.

Area of Study 1: What influences a person's perception of the world?

Area of Study 2: How are people influenced to behave in particular ways?

Area of Study 3: Student-directed practical investigation

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Report of practical activity involving primary data and/or secondary data;
- Report of research investigation into brain function and influences of behaviour;
- Brain structure modelling activity;
- Logbook of practical activities;
- Data analysis;
- Media response;
- Reflective learning journal;
- Tests;
- End of semester examinations.

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

The nervous system influences behaviour and the way people experience the world. In this unit students examine both macro-level and micro-level functioning of the nervous system to explain 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 the causes and management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, the development of new capacities and changed behaviours. They consider the limitations and fallibility of memory and how memory can be improved. Students examine the contribution that classical and contemporary research has made to the understanding of the structure and function of the nervous system, and to the understanding of biological, psychological and social factors that influence learning and memory.

Area of Study 1: How does the nervous system enable psychological functioning?

Area of Study 2: How do people learn and remember?

Unit 4: How is wellbeing developed and maintained?

Consciousness and mental health are two of many psychological constructs that can be explored by studying the relationship between the mind, brain and behaviour. In this unit students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a biopsychosocial approach, as a scientific model, to analyse mental health and disorder. They use specific phobia to illustrate how the development and management of a mental disorder can be considered as an interaction between biological, psychological and social factors. Students examine the contribution that classical and contemporary research has made to the understanding of consciousness, including sleep, and the development of an individual's mental functioning and wellbeing.

Area of Study 1: How do levels of consciousness affect mental processes and behaviour?

Area of Study 2: What influences mental wellbeing?

Area of Study 3: Practical investigation

Prerequisites

No prerequisites exist for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Report of practical activities and student-designed practical investigation;
- Comparative analysis;
- Research evaluation;
- Visual presentation / flow chart;
- Data analysis;
- Reflective learning journal;
- Structured questions;
- External end-of-year examination.

Studio Arts

Unit 1: Studio inspiration and techniques

In this unit students focus on developing an individual understanding of the stages of studio practice and learn how to explore, develop, refine, resolve and present artworks. Students explore sources of inspiration, research artistic influences, develop individual ideas and explore a range of materials and techniques related to specific art forms. Using documented evidence in a visual diary, students progressively refine and resolve their skills to communicate ideas in artworks. Students also research and analyse the ways in which artists from different times and cultures have developed their studio practice to interpret and express ideas, source inspiration and apply materials and techniques in artworks. The exhibition of artworks is integral to Unit 1 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

Area of study 1: Researching and recording ideas

Area of study 2: Studio practice

Area of study 3: Interpreting art ideas and use of materials and techniques

Unit 2: Studio exploration and concepts

In this unit students focus on establishing and using a studio practice to produce artworks. The studio practice includes the formulation and use of an individual approach to documenting sources of inspiration, and experimentation with selected materials and techniques relevant to specific art forms. Students explore and develop ideas and subject matter, create aesthetic qualities and record the development of the work in a visual diary as part of the studio process. Through the study of art movements and styles, students begin to understand the use of other artists' work in the making of new artworks. Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand developments in studio practice. Using a range of art periods, movements or styles, students develop a broader knowledge about the history of art. Analysis is used to understand the artists' ideas and how they have created aesthetic qualities and subject matter. Comparisons of contemporary art with historical art styles and movements should be encouraged. The exhibition of artworks is integral to Unit 2 and students are encouraged to visit a variety of exhibition spaces throughout the unit, reflect on the different environments and examine how artworks are presented to an audience.

Area of study 1: Exploration of studio practice and development of artworks

Area of study 2: Ideas and styles in artworks

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions;
- Folio of artworks;
- End of semester examinations.

Unit 3: Studio practices and processes

In this unit students focus on the implementation of an individual studio process leading to the production of a range of potential directions. Students develop and use an exploration proposal to define an area of creative exploration. They plan and apply a studio process to explore and develop their individual ideas. Analysis of these explorations and the development of the potential directions is an intrinsic part of the studio process to support the making of finished artworks in Unit 4. The exhibition of artworks is integral to Unit 3 and students are expected to visit a variety of exhibitions throughout the unit, reflect on the different environments where artworks are exhibited and examine how artworks are presented to an audience. Students are expected to visit at least two different exhibitions and study specific artworks displayed in these exhibitions during their current year of study.

Area of study 1: Exploration proposal

Area of study 2: Studio process

Area of study 3: Artists and studio practices

Unit 4: Studio practice and art industry contexts

In this unit students focus on the planning, production and evaluation required to develop, refine and present artworks that link cohesively according to the ideas resolved in Unit 3. To support the creation of artworks, students present visual and written evaluation that explains why they selected a range of potential directions from Unit 3 to produce at least two finished artworks in Unit 4. This unit also investigates aspects of artists' involvement in the art industry, focusing on a least two different exhibitions, that the student has visited in the current year of study with reference to specific artworks in those exhibitions. Students investigate the methods and considerations of the artist and/or curator involved in the preparation, presentation and conservation of artworks displayed in exhibitions in at least two different galleries or exhibitions.

Area of study 1: Production and presentation of artworks

Area of study 2: Evaluation

Area of study 3: Art industry contexts

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Structured questions;
- Folio of artworks;
- External end-of-year examination.

Systems Engineering

Unit 1: Introduction to mechanical systems

This unit focuses on engineering fundamentals as the basis of understanding underlying principles and the building blocks that operate in simple to more complex mechanical devices. While this unit contains the fundamental physics and theoretical understanding of mechanical systems and how they work, the main focus is on the construction of a system. The construction process draws heavily upon design and innovation. The focus of the system should be mechanical; however, it may include some electronic components. The constructed operational systems demonstrate selected theoretical principles studied in this unit. All systems require some form of energy to function. Through research, students explore and quantify how systems use or convert the energy supplied to them. In this unit, students are introduced to the Systems Engineering Process. They are introduced to the fundamental mechanical engineering principles, including recognition of mechanical subsystems and devices, their motions, the elementary applied physics, and the related mathematical calculations that can be applied to define and explain the physical characteristics of these systems.

Area of Study 1: Fundamentals of mechanical system design

Area of Study 2: Producing and evaluating mechanical systems

Unit 2: Introduction to electrotechnology systems

In this unit students study fundamental electrotechnology engineering principles. Through the application of their knowledge and the Systems Engineering Process, students produce operational systems that may also include mechanical components. In addition, students conduct research and produce technical reports. While this unit contains fundamental physics and theoretical understanding of electrotechnology systems and how they work, student focus remains on the construction of electrotechnology systems. The construction process draws heavily upon design and innovation. Electrotechnology is experiencing rapid developments and changes through technological innovation. The contemporary design and manufacture of electronic equipment involves increased levels of automation and inbuilt control through the inclusion of microcontrollers. In this unit students explore some of these new and emerging technologies. Students study fundamental electrotechnology principles including applied electrical theory, representation of electronic components and devices, elementary applied physics in electrical circuits, and mathematical calculations that can be applied to define and explain electrical characteristics of circuits. The unit offers opportunities for students to apply their knowledge in the design, construction, testing and evaluation of an operational system. The system should be predominately electrotech based, but would generally have electro-mechanical components within the system.

Area of Study 1: Fundamentals of electrotechnology system design

Area of Study 2: Producing and evaluating electrotechnology systems

Prerequisites

There are no prerequisites.

Methods of Assessment

- Folio;
- Production work;
- Practical demonstrations;
- End of semester examinations.

Unit 3: Integrated systems engineering and energy

In this unit students study the engineering principles that are used to explain the physical properties of integrated systems and how they work. Through the application of their knowledge, students design and plan an operational, mechanical-electrotechnology integrated and controlled system. They learn about the technologies used to harness energy sources to provide power for engineered systems. Students commence work on the design, planning and construction of one substantial controlled integrated system. This project has a strong emphasis on designing, manufacturing, testing and innovation. Students manage the project throughout the Systems Engineering Process, taking into consideration the factors that will influence the design, planning, production and use of their integrated system. The systems engineering principles underpin students' understanding of the fundamental physics and applied mathematics needed to provide a comprehensive understanding of mechanical and electrotech systems and how they function. Students learn about sources and types of energy that enable engineered technological systems to function. Comparisons are made between the impacts of the use of renewable and non-renewable energy sources. Students learn about the technological systems developed to capture and store renewable energy and technological developments to improve the credentials of non-renewables.

Area of Study 1: Controlled and integrated systems engineering design

Area of Study 2: Clean energy technologies

Unit 4: Systems control and new and emerging technologies

In this unit students complete the production work and test and evaluate the integrated controlled system they designed in Unit 3. Students investigate new and emerging technologies, consider reasons for their development and analyse their impacts. Students use their investigations, design and planning to continue the fabrication of their mechanical electro-technology integrated and controlled system using the Systems Engineering Process. They use project and risk management methods through the construction of the system and use a range of materials, tools, equipment, and components. In the final stages of the Systems Engineering Process, students test, diagnose and analyse the performance of the system. They evaluate their processes and the system. Students expand their knowledge of new and emerging developments and innovations through their investigation and analysis of a range of engineered systems. They analyse a specific new or emerging innovation, including its impacts.

Area of Study 1: Producing, testing and evaluating integrated technological systems

Area of Study 2: New and emerging technologies

Prerequisites

No prerequisites exist for Year 12 students.

Methods of Assessment

- Multimedia presentation;
- Folio;
- Brochure;
- Report;
- Production work.

Visual Communication Design

Unit 1: Introduction to visual communication design

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to create messages, ideas and concepts, both visible and tangible. Students practise their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications.

Through experimentation and exploration of the relationship between design elements and design principles, students develop an understanding of how they affect the visual message and the way information and ideas are read and perceived. Students review the contextual background of visual communication through an investigation of design styles. This research introduces students to the broader context of the place and purpose of design. Students are introduced to the importance of copyright and intellectual property and the conventions for acknowledging sources of inspiration.

In this unit students are introduced to four stages of the design process: research, generation of ideas, development of concepts and refinement of visual communications.

Area of study 1 Drawing as a means of communication

Area of study 2 Design elements and design principles

Area of study 3 Visual communications in context

Unit 2: Applications of visual communication within design fields

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

Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They also investigate how typography and imagery are used in these fields as well as the communication field of design. They apply design thinking skills when exploring ways in which images and type can be manipulated to communicate ideas and concepts in different ways in the communication design field. Students develop an understanding of the design process as a means of organising their thinking about approaches to solving design problems and presenting ideas. In response to a brief, students engage in the stages of research, generation of ideas and development and refinement of concepts to create visual communications.

Area of study 1: Technical drawing in context

Area of study 2: Type and imagery in context

Area of study 3: Applying the design process

Prerequisites

There are no prerequisites for Year 11 students.

Methods of Assessment

- Structured questions and short answer responses;
- Folio of visual communications;
- End of semester examinations.

Unit 3: Design thinking and practice

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

Students use their research and analysis of the process of visual communication designers to support the development of their own designs. They establish a brief for a client and apply design thinking through the design process. Design from a variety of historical and contemporary design fields is considered by students to provide directions, themes or starting points for investigation and inspiration for their own work. Students use observational and visualisation drawings to generate a wide range of design ideas and apply design thinking strategies to organise and evaluate their ideas. The brief and research underpin the developmental and refinement work undertaken in Unit 4.

Area of study 1: Analysis and Practice in Context

Area of study 2: Design Industry Practice

Area of study 3: Developing a brief and generating ideas

Unit 4: Visual communication design development, evaluation and presentation

The focus of this unit is on the development of design concepts and two final presentations of visual communications to meet the requirements of the brief. This involves applying the design process twice to meet each of the stated communication needs.

Having completed their brief and generated ideas in Unit 3, students continue the design process by developing and refining concepts for each communication need stated in the brief. They utilise a range of digital and manual two- and three-dimensional methods, media and materials. They investigate how the application of design elements and design principles creates different communication messages and conveys ideas to the target audience.

As students revisit stages to undertake further research or idea generation when developing and presenting their design solutions, they develop an understanding of the iterative nature of the design process. Ongoing reflection and evaluation of design solutions against the brief assists students with keeping their endeavours focused.

Area of study 1: Development, refinement and evaluation

Area of study 2: Final presentations

Prerequisites

There are no prerequisites for Year 12 students.

Accelerated students must generally demonstrate successful completion of Units 1 & 2.

Methods of Assessment

- Folio of visual communications;
- External end-of-year examination.

Contacts

Before making decisions about course composition and balance, students and parents may wish to seek advice from relevant staff. Please take careful note of any recommendations stated for entry into specific VCE subjects. Students are not guaranteed entry into any VCE subject of their choosing and selections will be scrutinized according to proven work ethic, learning progress and final results. Class size limits apply and students submitting selections late or not showing appropriate commitment to their subjects may be precluded from certain subjects and required to reselect. Some subjects may not generally run with small numbers due to timetabling constraints.

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