Year 12 Curriculum Overview

Year 12 is the second year of a two year VCE program with English being the only core subject. Students select a further four Unit 3 and 4 subjects which are all completed as a sequence.

Accounting Unit 3

This unit focusses on financial accounting for a single activity trading business as operated by a sole trader. It emphasises the role of accounting as an information system. Students are introduced to the double entry system of recording using the accrual basis of accounting. The perpetual method of stock recording with the 'First In, First Out' (FIFO) method is used. Where appropriate, the accounting procedures developed in each area of study incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Art Unit 3

This unit focusses on use of the Analytical Frameworks to analyse and interpret artworks produced before and after 1970. The meanings and messages of artworks produced before 1970 are compared and contrasted with those of artworks produced since 1970. Students explore personal ideas and concepts through a conceptual and practical investigation which includes at least one finished artwork. Students reflect upon and analyse their work using selected Analytical Frameworks.

Business Management Unit 3

In this unit, students investigate how large scale organisations operate. Students examine the environment (both internal and external) in which large scale organisations conduct their business, and then focus on aspects of an individual business’s internal environment and how the operations of the business are managed. Students develop an understanding of the complexity and challenge of managing large scale organisations. They also have the opportunity to compare theoretical perspectives with practical applications.

Biology Unit 3

In this unit, students investigate the activities of cells at a molecular level; the synthesis of biomacromolecules that form components of cells and the role of enzymes in catalysing biochemical processes. Students investigate energy transformations in cells and how autotrophs and heterotrophs obtain their energy requirements, particularly through the processes of photosynthesis and cellular respiration. Students gain an understanding that DNA and proteins are the key molecules of life forms, and that DNA codes for the production of proteins. Students explore applications of molecular biology in medical diagnosis. This unit also focuses on how cells detect biomolecules that elicit particular responses depending on whether the molecules are ‘self’ or ‘non-self’. Students investigate how signalling molecules, such as hormones and neurotransmitters, assist in coordinating and regulating cell activities by binding to specific receptors on membranes of target cells, initiating a series of molecular changes in response (signal transduction). Students examine the barriers and mechanisms of organisms that protect them from invasion and infection by pathogenic organisms. They investigate mechanisms that control the effectiveness of pathogens, and specific and non-specific immune responses of organisms to antigens.

Chemistry Unit 3

In this unit, students investigate the scope of techniques available to the analytical chemist. Chemical analysis is vital in the work of the forensic scientist, the quality control chemist at a food manufacturing plant, the geologist in the field, and the environmental chemist monitoring the health of a waterway. Students investigate organic reaction pathways and the chemistry of particular organic molecules. A detailed knowledge of the structure and bonding of organic chemicals is important to the work of the synthetic organic chemist. In the wake of the work done on the genome project, synthesis of new medicines is one of the growth industries for the coming decades. Students investigate the role of organic molecules in the generation of biochemical fuels.

Design Technology Unit 3

In this unit, students investigate a client’s needs, prepare a design brief, devise evaluation criteria, carry out research and propose a series of design options. They justify the choice of a preferred design option and develop a work plan and commence production of the product, which will be completed and evaluated in Unit 4. This unit also examines how a range of factors influence the design and development of products within industrial/commercial settings.

English Unit 3

This unit focusses on the response to a text, the use of persuasive language and the study of a context. Students discuss their ideas and write a personal response to at least one text. They study the craft of writing within a particular context and write for different audiences in a variety of styles, such as imaginative, expository and persuasive. Students also complete an oral presentation within the required guidelines through the study of an issue in the Australian media.

Food Technology Unit 3

In this unit, students develop an understanding of food safety in Australia and the relevant national, state and local authorities’ regulations, including the HACCP system. Students investigate the causes of food spoilage and food poisoning and apply safe work practices while preparing food. Students also demonstrate an understanding of key foods, analyse the functions of the natural components of key foods, learn about primary and secondary processes and food preservation and apply this information in the preparation of foods. Students devise a design brief from which they develop a detailed design plan and evaluation criteria. They then conduct research and establish an overall production timeline to complete the set of food items for implementation in Unit 4 in their SAT.
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**Further Mathematics Units 3**

This course consists of a compulsory core area of study, ‘Data analysis’, after which students select three modules from a group of six. The appropriate use of technology to support and develop the teaching and learning of mathematics is incorporated throughout the units. The additional areas of study are geometry and trigonometry, matrices and number systems.

**Global Politics Unit 3**

In this unit students investigate the key global actors in twenty-first century global politics. They use contemporary evidence to analyse the key global actors and their aims, roles and power. They develop an understanding of the key actors through an in-depth examination of the concepts of national interest and power as they relate to the state, and the way in which one Asia-Pacific state uses power within the region to achieve its objectives. The unit is concerned with contemporary issues and events. While these may have antecedents in issues and events before the twenty-first century, the focus is on the twenty-first century when choosing particular examples and case studies.

**History Unit 3**

This unit covers the Russian Revolution. Students evaluate the role of ideas, leaders and movements in the development of the revolution. They also analyse the challenges faced by the emerging new order in its attempts to create a new society. Students then evaluate the nature of the society created by the revolution.

**Information Technology Unit 3**

Students use web authoring and database management software to solve information problems. Students design, create and evaluate a prototype website that meets the needs of an online community and explain the technical requirements that support the hosting of this website. Using database management software, students design and develop a solution to an information problem and discuss why and how data is acquired via websites.

**Legal Studies Unit 3**

In this unit, students develop an understanding of the institutions that determine our laws and their law-making powers and processes. Students evaluate the effectiveness of law-making bodies and examine the need for the law to keep up to date with changes in society. They study the key features and operation of parliament and influences on law-making, with a focus on the role of the individual. Central to the investigation of law-making is the role played by the Commonwealth Constitution. Students develop an understanding of the importance of the Constitution in their lives and on society as a whole and undertake a comparative analysis of the Constitution in another country. Students also study the important role played by the High Court of Australia in interpreting and enforcing the Constitution and ensuring that parliaments do not act outside their areas of power nor infringe protected rights. Finally, students investigate the nature and importance of courts as law-makers and undertake an evaluation of their effectiveness as law-making bodies and the relationships that exist between parliaments and courts.

**Literature Unit 3**

In this unit students analyse how meaning is created when a novel is adapted. They then present a written evaluation of a novel and its film adaptation. Students explore the ways in which writers express views and values through their work and then analyse reviews of texts to compare the reviewer’s interpretation with their own. Students also respond to texts through passage analysis.

**LOTE French Unit 3**

This unit focuses on grammar text types, vocabulary and kinds of writing. Students undertake a detailed study on the themes of the individual, French-speaking communities and the changing world. Students express ideas through the production of original texts, analyse and use information from spoken or written texts, and exchange information, opinions and experiences.

**LOTE Indonesian Unit 3**

This unit focuses on grammar text types, vocabulary and kinds of writing. Students undertake a detailed study on the themes of the individual, Indonesian-speaking communities and the changing world. Students express ideas through the production of original texts, analyse and use information from spoken or written texts, and exchange information, opinions and experiences.

**Mathematical Methods Unit 3**

This unit focuses on functions and graphs, algebra, logarithms, exponentials and calculus. Students define and explain key terms and concepts as specified in the content of the areas of study and apply a range of related mathematical routines and procedures. They apply processes in non-routine contexts and analyse and discuss these applications. Students also select and use technology appropriately to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques.
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Media Unit 3
This unit provides students with opportunities to develop their understanding of production and story elements, and to recognise the role and significance of narrative organisation in fictional film. In this context, students also consider how production and story elements structure narratives to engage an audience. Students develop practical skills by undertaking exercises related to aspects of the design and production process. They design a media production for a specific media form. Relevant specifications are presented as a written planning document and include visual representations.

Music Investigation Unit 3
Students select a work as a basis for an investigation of a focus area which they explore through investigation, composition and performance. Investigation involves research into background contextual issues relevant to performance practice, critical listening to recordings of performances and examination of texts and scores. Composition involves applying these research findings to create a folio which demonstrates understanding of the characteristics of the Focus Area. Students plan, rehearse and perform a program of works that are representative of the focus area. These areas of study require students to apply extensive skills in performance, aural awareness, transcription, music theory and analysis.

Music Performance Unit 3
Students select a program of solo or group 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.

Physics Unit 3
Unit 3 consists of two prescribed areas of study: Motion in one and two dimensions; and Electronics and photonics. A detailed study on Materials and their use in structures is to be undertaken in either Unit 3 or Unit 4. This unit focuses on the ideas that underpin much of the technology found in areas such as communications, engineering, commerce and industry. Motion in one and two dimensions is introduced and applied to moving objects on Earth and in space. Circuit models are applied to further aspects of electricity and electronics, and the operation and use of photonic devices are introduced. The detailed study offers examples of theoretical and practical applications of these technologies.

Physical Education Unit 3
This unit introduces students to an understanding of physical activity from a physiological perspective. The contribution of energy systems to performance in physical activity is explored, as well as the health benefits gained from participation in regular physical activity.

Specialist Mathematics Unit 3
This unit focuses on how to explain and use key mathematical skills and concepts to sketch graphs of functions which display both continuous and asymptotic behavior. It also focuses on examining the nature and location of stationary points, ellipses, hyperbolas and circular (trigonometric) functions. As well as applying routines and procedures by hand, students use appropriate technology and various calculus techniques to solve application problems. Students apply mathematical procedures with an emphasis on general cases and skills in non-routine contexts. They then communicate these results. Students also select and use technology to apply mathematics in analysis tasks.

Visual Communication Design Unit 3
This unit provides students with an opportunity to gain understanding of the process designer’s employ to structure their thinking and communicate ideas with clients, target audiences, other designers and specialists. Through practical investigation and analysis of existing visual communications, students gain insight into how the selection of methods, media, materials and the application of design elements and design principles can create effective visual communications for specific audiences and purposes. Students use their research and analysis of visual communication designers to support the development of their own work. 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 to write their own design brief and apply design-thinking skills through the design process generating ideas for their own folio.