

Name: _____ Form Group: _____

BRIGHTON SECONDARY COLLEGE

YEAR 10 HANDBOOK - 2010



Brighton Secondary College
120 Marriage Road
EAST BRIGHTON 3187
Principal Mrs Julie Podbury

School No. 7650
Telephone 9592 7488
Fax 9592 5724
Email brighton.sc@edumail.vic.gov.au



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Year 10 Programme 2010

INTRODUCTION

This handbook outlines Year 10 subjects planned for 2010. Its purpose is to provide parents and students with an overview of the course structure and a description of the various electives available.

In 2010 all Year 10 students will undertake two semesters of English, Mathematics, Science and General Humanities. In addition they will choose six electives from the many outlined in this handbook.

If students choose to study a LOTE subject it must be undertaken as a two-semester unit.

If students choose to study 'ADVANCE' Outdoor Education it must be undertaken as a two-semester unit.



Core Subjects 2010

English

This is **compulsory** for all students for both semesters.

Description:

This unit is focused on the study of language by exploring a variety of texts and forms of written and spoken expression. Students learn to appreciate, enjoy and use language. They will develop their ability to explore complex themes and issues and express their ideas.

Area of study

- Reading and the study of texts
- The craft of writing
- Speaking and listening

Students will focus on the following forms of writing:

- Personal and descriptive writing
- Creative writing
- Argumentative and issues based writing
- Speaking and listening tasks will be based around the study of the texts
- Study of a novel, play and film

Learning Outcomes

Read, view, analyse and discuss contemporary and classical texts

- Analyse and discuss informative and argumentative texts
- Compare and contrast the typical features of particular texts
- Plan, write and present several pieces of writing using various styles
- Proofread and edit work for accuracy, consistency and clarity
- Engage in discussion and provide and justify opinions

Prepare and deliver presentations that explore complex issues or information imaginatively to interest an audience

English As A Second Language

This study is for Non-English speaking students resident in Australia for less than seven years. Tuition in the student's homeland must be in a language other than English to qualify for this subject.

Description

- Oral work
- Reading a variety of texts
- Text response: including novels, short stories and films
- Writing folio: range of pieces writing for different audiences
- Language skills: sentence structure, vocabulary, punctuation and paragraphing

Learning Outcomes

- Speaking and listening
- Reading, writing and viewing

Topics

- War and peace
- Growing up
- Good and evil
- Apartheid
- Animal rights
- Relationships
- Poverty



General Humanities

This **compulsory unit** aims to develop the students' skills and knowledge in the following areas:

- Government in Australia
- The legal system
- Careers/Work Education
- Citizenship
- History
- Geography

Topics

- Educational/Training pathways
- Career Options
- Job application/interview skills
- OHS and Work Experience
- Legal rights and responsibilities
- Introduction to our legal system
- Civil rights and responsibilities
- Government, Elections and voting
- Federation
- WW1 & WW2
- Social changes throughout the 20th century ie women's rights
- Pollution
- Global warming
- The ozone layer
- Land degradation i.e. salinity

Learning Outcomes

- Analyse vocational pathways and education and training requirements to develop possible career paths and work opportunities.
- Demonstrate effective job application and interview skills.
- Demonstrate an understanding of the rights and responsibilities of an Australian citizen.
- Describe the structure of Australia's system of government.
- Analyse events which contributed to Australia's social, political and cultural development.
- Evaluate the contribution of significant Australians to Australia's development.
- Analyse the impact of some key wars and conflicts in the twentieth century.
- Analyse the impact of human activities on natural systems.
- Describe the impact of resource development and use on a natural environment.

- Identify strategies to address the use and management of our natural environment.
- Describe the relationship between current use of the environment and future availability of resources.

Mathematics

Year 10 Mathematics aims to give students the opportunity to:

- Demonstrate useful mathematical and numeracy skills for successful general employment and functioning in society
- Solve practical problems with mathematics, especially industry work-based problems
- Develop specialist knowledge in mathematics that provides for further study in the discipline
- See mathematical connections and be able to apply mathematical concepts, skills and processes in posing and solving mathematical problems
- Be confident in one's personal knowledge of mathematics, to feel able to apply it, and to feel able to acquire new knowledge and skills when needed
- Be empowered through knowledge of mathematics as a numerate citizen, able to apply this knowledge critically in societal and political contexts.
- Develop understanding of the role of mathematics in life, society and work, the role of mathematics in history and mathematics as a discipline – its big ideas, history, aesthetics and philosophy.

Topics

- Probability
- Linear relationships
- Geometry
- Surds + Indices
- Expansion and factorization
- Quadratic functions
- Measurement
- Trigonometry



Science

Description

Science helps us to understand the substances around us, our evolutionary history and why we need to wear seat belts in motor vehicles. Science explains how we inherit characteristics from our parents, why being different is important to living organisms and where our place is in the Universe.

Year 10 science is an opportunity to develop your understanding of Biological, Chemical, Physical and Space Sciences and how they relate to everyday life.

The year 10 science program will help you to deepen your scientific knowledge; and to decide which fields of science you find the most interesting. It will also help you to understand where science fits within career pathways and specific career choices.

Topics

Forces on the Move

This topic is about force and motion. Speed, acceleration, inertia, Newton's Law's and weight and mass are all explored through experimental design, information technology, research and applications to life.

Genetics: Getting into Genes

This topic is about inheritance and genetic technologies. The way characteristics are passed down from parents to children is explained, using terms like "DNA", "genes" and "chromosomes". You are also introduced to gene technologies.

Chemistry: The Science of Materials

Metals and polymers are materials we encounter every day in the twenty-first century. In this topic, you conduct experiments to determine the properties of materials, including their chemical reactions; and explain these in terms of chemical structures.

Space: The Mysterious Universe

In this topic, we examine the life cycle of stars, including the production of chemical elements by nuclear fusion. We also examine current and future possibilities for space travel; as well as the mystery of dark matter and dark energy.

Evolution: Life Goes On

In this topic, we look back in history to the scientists, Darwin, Wallace and Lamarck, including their rivalries and their competing theories of evolution. This topic also enables us to touch on the Philosophy of Science as we look why evolutionary theory has become widely accepted in biology and other fields of science.



The Creative Arts

Drama

Description

This study introduces students to:

- Solo Performance incorporating a variety of theatrical styles and conventions
- Group performance including interpreting established texts, writing imaginative scripts using established dramatic forms and styles.
- Developing and understanding of analytical skills.

Topics

- Character building/acting skills
- Improvisation
- Use of dramatic elements, forms, styles and conventions to convey meaning
- Interpretations of texts, characters and scripts from a range of cultural sources.
- Practical demonstration of one stagecraft element

Learning Outcomes

- Make and present drama that explores a range of themes, issues and ideas.
- Structure and present dramatic works to chosen theatrical styles and forms.
- Analyse and interpret the structure, content and aesthetic qualities of drama and the role of drama within different cultural contexts.

VCE Drama

Unit 1: Dramatic Storytelling

Area of Study 1: Creating characters

This study focuses on creating, presenting and analysing a devised performance that includes real or imagined characters, based on personal, cultural and community experiences and stories.

Students examine storytelling through:

- Solo and/or ensemble performance

- Manipulating expressive skills to create characters
- Understanding how performance is shaped and given meaning
- Stimulus material from a range of social and cultural contexts
- Learning about stagecraft, theatrical and performance styles.

Students will attend a play and analyse it as part of their assessment.

Unit 2: Interpreting drama

Area of Study 1: Creating dramatic performance

This study involves the use and analysis of play scripts and stimulus material from a range of cultures including Australia, to create an ensemble performance.

This area of study will include:

- A play script and/or a play script excerpts;
- Stimulus material used to develop performance from a range of cultures including those within Australia;
- Techniques used to develop stimulus material performance, such as improvisation and scriptwriting;
- The development of role and character through the use of expressive skills in a range of contexts;
- Ways in which dramatic elements such as climax, conflict, contrast, mood, rhythm, sound, space, symbol, timing, tension and focus are used;
- Stagecraft such as direction, costume, lighting, set design, sound, make-up and properties to define and develop form;
- Naturalistic and non-naturalistic performance styles and associated theatrical conventions from a range of cultures;
- The relationship between performer and audience in the creation of meaning;
- The collaborative process involved in the development and realisation of ensemble performance.



VCE Theatre Studies

Unit 1: Theatrical form

Area of Study 1: Text interpretation – realisation through stagecraft

This study focuses on text interpretation through acting and other areas of stagecraft. Students study plays or play excerpts selected from any key works up to the modern era and analyse the processes involved in their own productions. A play includes written and performance forms.

This area will include:

- Play interpretation through acting;
- A range of works that highlight theatrical developments of the pre-modern era;
- Major movements within the pre-modern era;
- Differing performance styles and theatrical conventions that define the pre-modern era, including the influence of major practitioners and stagecraft characteristics;
- The role of audience and how it can influence and inform intended meaning;
- Play interpretation using stagecraft other than acting;
- The collaborative production processes involved in the realisation of performances of plays from the pre-modern era.

Area of Study 2: Analysing a play in performance

This study focuses on analysis and evaluation of a professional play in performance from the pre-modern era.

This area will include:

- Nature of theatre analysis and evaluation, including audience perspective;
- Acting techniques applied to a play in performance;
- Other stagecraft used in a play in performance;
- Performance styles and theatrical conventions that define the pre-modern era.

Studio Arts

Description

This study introduces student to:

- Drawing/painting
- Printmaking
- Pottery/sculpture
- Art history

Topics

Overall Focus: Modernist Art of the 20th Century.

- Drawing: Still life, landscape, portraiture, figure studies
- Painting: extension from one of the above, beginning with experimenting with acrylics, water-colours and oils completing one major artwork
- Printmaking: research ideas
- Preparation and demonstration, production of print work and producing an edition of prints
- Pottery/sculpture: analyzing and examining past and contemporary works

Learning Outcomes

- To enable students to compile a folio of art work which addresses all the above disciplines and illustrates evidence of a development of student's individual style and an appreciation of art aesthetics.
- The acquisition of skills enabling an individual or group presentation of an written, oral or power point assignment; which addresses the historical content of the course.
- To enable students to complete a major art piece in one of the listed disciplines and topics as listed.

VCE Studio Arts

Unit 1

Students will source ideas and inspiration and use a variety of methods to translate these into visual form to meet Outcome 1. Students explore and use a variety of materials and techniques to record and



develop ideas and sources of inspiration for the production of artworks to meet Outcome 2.

Over the semester, students will also discuss how artists from a range of periods, art movements and places have interpreted sources of inspiration and used materials and techniques in the production of artworks.

Visual Communication and Design

Description

This study introduces students to

- Architectural Drawing Plans
- Poster, Packaging & Designs
- A range of both computer and technical drawing
- Rendering techniques using different media

Topics

- Conceptualizing ideas through brainstorming
- Analysis of graphic materials
- Developing designing and finishing new products and building plans
- Final presentation of folio work

Learning Outcomes

- To enable students to develop skills in presentation of design work.
- To develop skills in graphic design and folio presentation.
- To enable students to complete a major graphics piece from initial idea to folio presentation.

Dance

Description

Students explore a range of dance styles including:

- Basic ballet
- Contemporary dance
- Jazz
- Hip-hop/Street dance
- Latin Dance

Learning Outcomes

Dance Performance:

- Students choreograph and perform a dance/s using a selected dance style.

Dance Appreciation:

- Students analyse selected dance presentations as seen from video and learn to deconstruct the meaning behind dances.

Maintenance of Dances:

- Students learn basic physiology and biomechanics.
- Students discuss nutrition for dances, injury prevention and basic first aid related to dance injuries.

Music

Description

This study introduces students to:

- Solo/group performance incorporating a wide variety of musical styles.
- Musical analysis and development of aural skills and identification of the musical elements and characteristics of various works.
- The use of music technology including software to compose and arrange music.
- Compositional techniques.
- Investigate and study the development of contemporary rock/pop music.

Topics

- Blues Music
- 70's Rock and Punk
- Heavy Metal
- Composition, arrangement and remixing
- Grunge Music
- Punk
- Funk, Rap and Techno

Learning Outcomes

- To enable students to develop their performance and compositional skills.
- To develop aural analysis skills and develop a greater depth of understanding of various music styles and works.
- To acquire skills in the use of music technology for recording, composing and arranging.



Media

Description

Studying Media will provide students with the opportunity to develop critical and creative knowledge and skills.

Media texts (film, photograph, newspapers, etc.), technologies (cameras, editing software) and processes (planning, creation and publishing) will be considered from different angles including their structure and features, methods of production and distribution, audience reactions and the impact on society.

The Media study is relevant to students with a wide range of expectations, including those who wish to pursue further study at VCE, tertiary level or in vocational education and training settings, as well as providing valuable knowledge and skills for participation in contemporary society.

Areas of study

Media forms including:

- audio visual media (film, television, radio, video, photography)
- print-based media (newspapers, magazines and related publications)
- Digital media technologies (the Internet, computer games and interactive multimedia).
- Media and cross media processes and developments such as advertising, news and current affairs production, popular music, popular culture, cyber-culture and virtual worlds, convergence and hybridisation, information dissemination and retrieval technologies
- The media and its relationship with society and culture

Topics

- Investigation of several aspects of the media industry and determine what makes successful products.
- Using movie making, digital photography and audio software to create specific designs and resources. (advertisements, film, photo storyboards, magazine layouts)
- Create and publish a pod-cast.

- Promotion and release of a movie or digital resource into the wider school community (undertaken after some research and consultation with the potential clients).
- Develop teamwork and communication skills between the group members.
- Encourage leadership and/or supervisory roles within teams.

Learning Outcomes

- Analyse and develop solutions to information problems ie: creation of a short film, both individually and as a team member, using a range of skills, processes and equipment.



HUMANITIES

VCE Business Management

Unit 1: Small business management

Area of Study 1: Business concepts

This study provides students with an understanding of the generic business concepts, which apply to the management of organisations of varying size, complexity or industry setting.

These concepts will give students an understanding of the characteristics of a range of businesses, knowledge of the internal and external environments of these businesses and the business support services available to management.

Measurement of business performance is important for management; a range of measures including financial and non-financial indicators will be applied to small business.

Ethics and socially responsible management is also an important consideration for businesses and as a result of business activity will have an impact on the various stakeholders of the small business.

In investigating these concepts, students will gain an understanding of the interrelationships that affect, and are affected by, business activity.

Area of Study 2: Small business decision-making, planning and evaluation

There are many decisions and considerable planning to be undertaken prior to the commencement or purchase of a business. This area of study examines many of these, with the view that informed decisions made initially will lay sound foundations for a successful small business. These major steps will be applied to practical or simulated small business situations. Students will also be required to analyse the effects of ethical and socially responsible management on small business decision-making and planning.

A consideration of how success can be evaluated for small business is also undertaken.

Area of Study 3: Day-to-day operations

This study examines the essential, on-going activities, which sustain an ethical small business and promote its successful growth. There are various areas where skills should be developed in order to conduct a small business in its operational phase.

A study of introductory accounting, management of staff, future development and growth, information and communications technologies in small business, introductory legal responsibilities or dynamic management of small business will enable the students to develop some of the knowledge and skills required when conducting a small business.

VCE Business Management

Unit 2: Communication and Management

Area of study 1: Communication in business

This study introduces students to the concept of communication in business with an emphasis on its importance and the methods and forms it can take.

Communication and its relationship to business objectives and strategy will be considered.

Management understands that the scope, type and purpose of the information that is to be communicated will depend upon the intended audience, such as employees, suppliers or customers.

Appropriate methods and forms of communication for different management contexts and situations will be considered.

In developing their understanding of communication, students learn to evaluate the appropriate use for communication in different business-related situations.



Area of Study 2: Managing the marketing function

This study involves an examination of the planning used by management to position its products and services in the marketplace. Students take the fundamental elements of communication covered in area of study 1, but consider these in the context of the marketing function. Students learn the essential characteristics of effective marketing and apply selected market research methods to the business environment.

Area of Study 3: Managing the public relations function

This study involves an examination of the role management plays in creating and maintaining the image of the business. The public relations function can be considered as an application of fundamental communication processes and strategies. Public relations objectives, strategies and tactics are used in a range of planned and unplanned business situations. Students will use relevant performance indicators to evaluate the performance of the management of public relations within a small business. Issues in public relations will also be analysed.

VCE History

Unit 1: Applied history in the local community

Area of Study 1: Crisis and conflict

The first half of the twentieth century was a period of political upheaval. In Europe by 1914 the traditional hierarchical world symbolised by the monarchical system began to crumble. In the aftermath of World War I the borders of Europe, Asia, Africa and the Middle East were redrawn, new countries were created and the empires of the defeated powers broken up. In this new order, which was characterised by economic and social unrest, political ideas such as communism, socialism and fascism gained popular support.

In Asia, Africa and the Middle East, nationalist movements emerged which blended aspects of Western political theories with local ideas and practices. The new and existing political orders came into conflict with each other as they sought to represent the interests of various groups of people, nationalities, classes and races. Movements for internationalism, and organisations such as the League of Nations, worked to replace war with

diplomacy as a means of resolving conflict between rival nations and ideologies. Despite these efforts the world was plunged into a second world war in 1939.

This study focuses on the circumstances surrounding the collapse of the traditional order, the post-war structures, the different political ideas and movements that emerged, and the conflicts which resulted from competing attempts to establish and legitimise them.

Area of Study 2: Social life

Daily life and social values underwent profound change in the first half of the twentieth century as new economic and social orders were established. The state, including those countries governed by communist or fascist regimes or under colonial control, increasingly influenced the private world of the family and home, and the public sphere of employment, education and politics.

Technological developments and practices saw the nature of work and the workplace change in industrialised nations and a powerful consumer culture emerge. Crises such as The Depression, revolution, movements for independence and the World Wars created major disruption and change to the patterns of everyday life, at times challenging traditional social values and behaviours. Factors such as gender, class, age, race, nationality and ethnicity were significant in determining an individual's or community's experience of life in the first half of the twentieth century.



This study involves an examination of changes in social life in the first half of the twentieth century, the reasons for such changes and the various outcomes for different groups.

Area of Study 3: Cultural expression

The work of writers, artists, musicians, choreographers and filmmakers reflect the spirit of their times. The first half of the twentieth century saw creative forces embrace the new age of the machine and factory.

The world of theories about the emotions and the unconscious resulted from the studies of Freud and Jung, and gained inspiration from the political successes of communism and fascism.

Others questioned the notion of progress and civilisation in a world which witnessed trench warfare, economic collapse, and the rise of dictators.

The mediums of film and radio were to offer the artist and writer a new means of creative expression. The avant-garde, political movements, and business interests embraced filmmaking. Europe, Asia, the Americas and Australia all had flourishing film industries by the 1920s.

Jazz became the new popular music of the century. Movements, groups and individuals who worked in the creative arts reflected, promoted and resisted the political, economic and social changes of their times. In some political and social settings they were subject to persecution and censorship, in others their works provided a platform for the propagation of independent views.

This study focuses upon the cultural expression of the first half of the twentieth century and its relation to the social, political and economic changes of the period.

Unit 2: Twentieth century 1945-2000

Area of Study 1: Ideas and political power

After World War II the United States

emerged with the Soviet Union as the global superpowers and remained so for much of the second half of the twentieth century.

Conflict and competition between the opposing ideologies of capitalism and communism raised world tension and conflict, and continued until the fall of communism in 1989.

Rivalry between the superpowers was played out in the arts, propaganda, sport, the space race, nuclear weapons production and political influence over developed and emerging nations.

The colonial empires once controlled by the great powers of the nineteenth century such as France, Germany and Britain disappeared in the decades following World War II. Some countries gained independence through armed struggle, and others through the diplomatic process. Some newly independent nations became the battlefields of the Cold War. Others were used as platforms for ideological, cultural and diplomatic rivalry between the two superpowers.

Developments in media technology allowed Western audiences to witness these conflicts in a way that had not previously been possible.

In this study, students examine a conflict(s) of the second half of the twentieth century.

Area of Study 2: Movements of people

Groups emerged in the second half of the twentieth century to challenge the way power structures should be organised, distributed and used.

Groups of concerned citizens came together to question the legitimacy of the states' authority over issues such as war, the environment, globalisation and human rights. In communist countries those movements and individuals who resisted the established authority were subject to arrest and even execution.

In developing nations, political struggles saw the emergence of new movements for change, some manipulating Western political influences and instead drawing upon local and religious traditions to



develop social and political structures. Significant developments in mass communication and audiovisual media has meant some of these movements of the people transcended national boundaries and developed a global audience and following.

This study focuses upon one or more movements, which challenged the political, social and/or economic structures in post-war society, the reasons for the challenge and the outcomes.

Area of Study 3: Issues for the millennium

The last decades of the twentieth century were to see the collapse of communism and the creation of new nations, some peacefully and others violently. Despite the work of international agencies, civil wars and regional conflicts continued as the century drew to a close. Political upheavals swelled the numbers of refugees worldwide.

Despite advances in science, technology and medicine, diseases such as the AIDS epidemic continued to decimate communities. These and other events have had a profound influence on the everyday lives of communities around the world.

This study involves the examination of how the interplay between domestic, regional and/or international events influenced the changes in social life for a community or group in the last decades of the twentieth century, and the way these experiences have been represented.

VCE Legal Studies

Unit 1: Criminal Law and Justice

During this unit, students will study:

- Criminal law
- Law making through Parliament
- General principles of criminal liability
- Reasons for a formal court hierarchy
- Procedures of the criminal trial
- Features of the adversary system of trial
- Court personnel and their role
- The role of the jury system in criminal cases

Assessment of Unit:

This will include a mixture of case studies, mock script or role plays, essays and tests, audio or visual presentations, folio and research reports and action plans and reports.

Relationship to further options:

This unit provides a foundation to Units 3 and 4 but is not a prerequisite.



Technology

Systems Robotics

Description

This unit involves the hands-on construction and programming of robots and an examination of the hardware/software they use. This includes an examination of how information is processed and communicated in computerised systems. Students initially build robots to specifications and then progress to freeform, with options to participate in inter-school competitions (Soccer-playing, Dancing, Rescue-Robots etc).

Areas of Study

- Robot construction
- Robot programming (LEGO Mindstorms interface, NQC, Vbasic, Rbasic).
- Computer architecture and hardware organisation.
- Electronic and digital components.
- Software program design methods.
- Binary maths and how computers process data.
- Interfacing, sensing and communication systems.
- Project management methods.
- Issues in Robotics (Past, present and future).
- Algorithm structures that help plan and design specific tasks, namely pseudocode or flowcharts.

Topics

- How to build and program robots: individual and student-group approaches to project management
- Collectively creating robots that are functional, easy to construct, program and amend
- So, what does each part of a computerised system do and how does it do it?
- So, how do all the parts of a computerised system link together?
- Communication investigations
- Robotics Issues
- Site Visits (Ford/Holden car plants)

Learning Outcomes

- Explain the relationship between the inputs, processes and outputs of systems.
Plan, construct and modify systems and report on their performance.
- Explain the components and operation of systems, and how people control and use systems.
- Justify, develop, implement and evaluate the preferred option with reference to function, performance, quality and safe use.
- Analyse how the principles, structure, organisation and control of systems both affect and are affected by community needs circumstances and resources.
- Prepare detailed designs and use specialised techniques to construct and operate complex systems, and evaluate the designs against community needs, circumstances and resources.
- Analyse the consequences of using a range of systems in terms of their energy source.
- Develop innovative solutions to complex systems problems and use qualitative and quantitative methods to evaluate performance.

ICT and Business

Assessment tasks will be focused on introducing students to the many uses of ICT in business. Students will be expected to create ICT solutions to specific tasks and a major project. The software to be used would be primarily Office products such as Word, Excel, Access and other software such as Web Authoring (Dreamweaver), Image and Audio Editing (PhotoShopCS3 and Audacity) and presentation software (Movie Maker and Power Point)

Topics

- A display folder of completed tasks, theory notes, home work and support notes will be created and maintained



- The major project will be to complete a folio of work relating to a 'business' they create. This will include business stationary, a reporting system, advertising products and Web Pages promoting the business
- Students will also investigate the ways business use ICT in the workplace and complete an investigation on a chosen business

Learning Outcomes

Analyse and develop solutions to information problems, both individually and as a team member, using a range of skills, processes and equipment.

Programming and Computer Games

Description

The computer games industry is undoubtedly the fastest growing section of the IT industry and employs creative people with many different IT skills.

In this elective the main focus is on the programming involved in creating a game and introduces students to two main programming environments: TADS and Game Maker.

Students will also be looking at ideas related to computer games, the technology that allows computer games to work, and some of the social implications of computer gaming. It is expected that students already know how to use basic software tools such as MS Word and graphic/drawing program.

Topics

Students will be involved in the following areas of study and skill development:

- Creating text adventures using TADS
- Creating action games using Game Maker
- Program design and development, as an individual and as part of a team
- Computer games: types, evaluation, technology, careers, social implications

Learning Outcomes

- Demonstrate an ability to plan and carry out the development of a programming project, both individually and as a team member
- Demonstrate an ability to evaluate a computer game and communicate that evaluation to a wider audience
- Demonstrate knowledge of: the kinds of careers available in the computer games industry; some of the social implications of computer gaming; the technology that supports computer games

VCE Information Technology

Unit 1: IT in Action

This unit focuses on how individuals use, and can be affected by, information and communication technology in their daily lives. During the unit students will transform a printed product into an on-screen product and evaluate its effectiveness as an information product. They will solve an information problem by using database management software, and also contribute collaboratively to the creation of an on-screen information product that presents an analysis of a contemporary ICT issue.

Unit 1:

Students will use either web authoring or multimedia authoring as the software tool to produce the products for two of the outcomes. The third outcome will require the use of database management software. For each of the products, a written report will also be needed.

Assessment of Unit

For Unit 1 students will be required to complete a variety of tasks to achieve satisfactory completion of each outcome and therefore the unit.



Relationship to further options:

Units 1 and 2 IT, while not a prerequisite for Units 3 and 4, gives a better base and preparation for Units 3 and 4. It may provide pathways to further studies in IT and to careers in ICT-based areas.

Why study this unit?

It may prepare students for future studies that require either an IT-related subject or for a vast range of careers that require efficient and effective use of IT.

Design Technology: Metal & Glass

Description

Focuses on the drawing, designing and manufacture of metal and glass products with a particular emphasis on finishes and positioning.

Topics

- Design using technical drawing techniques
- Use of appropriate techniques with precision and safety
- Exposing students to a wide variety of materials to produce functional and decorative items

Learning Outcomes

- Analyse the appropriateness of using particular materials, including emerging materials for specific purposes.
- Prepare detailed design proposals, make products using some complex equipment and analyse the effectiveness of the products with reference to specified criteria (eg. Cost-benefit analysis).
- Develop innovative solutions to problems using qualitative and quantitative methods.

Design Technology: Textiles

Description

Students are introduced to design elements, fashion illustration, garment construction, screen printing, tie-die, fabric painting, appliqué or other means of fabric adornment.

Topics

- "Styles" of fashion illustration – developed from a basic shape.
- Design concepts and application.
- Garment construction.

Learning Outcomes

- Analyse the appropriateness of using particular materials, including materials for specific purposes.
- Prepare detailed design briefs, make products using relevant equipment and analyse the effectiveness of the products with reference to specified criteria (eg. Cost-benefit analysis).
- Develop innovative solutions to design and garment construction problems

Design Technology: Wood

Description

Students construct a coffee table and/or other wooden projects using hand tools and some machine tools to develop skills in measuring, marking out, sawing, planing, chiselling and sanding.

Topics

- Health and safety
- Working from plans
- Joining and clamping techniques

Learning Outcomes

- Analyse the appropriateness of using particular materials
- Prepare detailed design proposals, make products using some complex equipment
- Develop innovative solutions to problems using qualitative and quantitative methods.



Food Technology: Food & Nutrition

Description

This course focuses upon helping students to make better informed food choices in the future. Students will follow a course of study based on the nutrients and associated dietary-related diseases. Students make real life applications through analysing their own diet and evaluate its possible impact upon their future lives. Production classes focus on exploring a wide range of different cooking methods, and cook foods which are specifically linked to a particular nutrient.

Topics

- The Nutrients
- Dietary-related diseases
- Dietary analysis

Learning Outcomes

- Show a clear understanding of major vitamins and minerals, and relevant dietary-related diseases.
- Demonstrate an understanding of vegetarianism and create a menu based upon optimising their nutrient intake.
- Prepare nutritious dishes that reflect healthy eating habits.



Health & Physical Education

Sports Physiology & Performance

Description

Practical Content

Students will have the opportunity to participate in a range of physical activities that may include football, soccer, basketball, netball, hockey, softball/baseball, aerobics and circuits and weight training.

Theoretical Content:

Body Systems

- Students will study the skeletal, muscular, respiratory and circulatory systems in relation to physical activity. Students will also be required to consider the changes that occur within these systems as a result of physical activity.

Energy Systems

- Students will begin by looking at the aerobic and anaerobic energy systems and will relate these systems to various physical activities. They will also consider the different fuels that are required for exercise and the best way to obtain carbohydrates, protein and fats.

Exercise Physiology

- Students will familiarise themselves with various fitness components, such as, muscular endurance, strength and flexibility and identify their presence in physical activities. They will study a number of training methods, such as interval, circuit, etc. Fitness principles such as FITT and overload will also be studied.

Assessment

Both the practical and theoretical components of this subject must be passed. Assessment includes:

- Practical participation, teamwork and game play, class-work, tests, laboratory
- reports, written and oral reports and an end of unit exam.

Physical Education – Sport Analysis

Description

Practical Content

Students will have the opportunity to participate in a range of physical activities including: football, soccer, basketball, netball, tennis, hockey, softball/baseball, gymnastics, aerobics and golf.

Theoretical Content

Biomechanics

- Students will receive an introduction to biomechanics. An emphasis will be placed on projectile motion, summation of forces and leverage.

Skill Acquisition

- Students will begin by learning what a physical skill is and how physical skills can be developed. It will focus on open and closed skills along with the implication of teaching, learning and practice. The stages of learning and memory are also covered.

Technology in sport

- Students will investigate changing equipment design and technique and consider the various ways that technological advancements have aided sporting performances.

Assessment

Both the practical and theoretical components of this subject must be passed. Assessment includes the following:

- Practical participation, teamwork and game play, class-work, tests, laboratory reports, written and oral reports and an end of unit exam.



Outdoor Education (One Semester Subject)

Description

Outdoor education aims to introduce students to sustainable relationships between people and natural environment. Students would be involved in a range of outdoor activities and will be introduced to skills and techniques required for safe participation in the outdoors and general community, while developing an appreciation and understanding of the natural environment.

Practical Content

Students will have the opportunity to participate in a wide range of practical based activities. These may include:

- Bush walking and camping
- Water based activities including swimming, surfing, and snorkelling.
- Bike riding.
- Rock climbing.

Theoretical Content

- Students will investigate the theory component for certain outdoor activities as well as a number of learning modules will be undertaken, based on community, communication and project management.
- Students will complete an assessment task each term, demonstrating subject specific content knowledge.

Assessment

Students need to pass both the Practical and theoretical component of this subject and successfully achieve standards in the recognised training course above.

'ADVANCE' Outdoor Education

(Two Semester Subject – Students choosing this subject must complete Outdoor Education for the whole year)

Description

'ADVANCE' Outdoor Education is a year-long subject which has as its main focus the encouragement of students to participate in community life. This is achieved by having an 'outdoor education' emphasis where students are given the opportunity to be involved in a wide range of activities and experiences.

Elements of the course involve students in the Duke of Edinburgh Award. The main aspects of the award are: Service, Adventurous Journey, Skills and Physical Recreation. To satisfy these requirements students will participate in a variety of practical activities. These include swimming, an overnight surf camp, indoor rock climbing, ten-pin bowling, bike riding, sailing and ice skating. Please note that in this subject students are required to maintain a high level of fitness and participation is compulsory in all activities.

Students will also participate in a skill development activity of their choice, such as cooking, learning a musical instrument or web page design.

The 'ADVANCE' Outdoor Education course is conducted under the banner of 'Advance – A Victorian Program for Youth Development'. It is delivered through a partnership between the Office for Youth, the school and community organisations.



Languages Other Than English

French

Students should have completed Units 7-11 of Tapis Volant 2 or approximately 200 hours of instruction in French.

Description

This unit builds upon skills developed in Semester 2 at Year 9 level. Basic structures of French will be reinforced using graded reading materials and appropriate written tasks. It equips students to study French at VCE level.

Topics

French language and culture is taught through examination of the following topics:

- The Past
- French Art
- Food
- Expressing Feelings
- Youth Related Issues
- French Fables
- Story Telling
- Giving Instructions
- Historical Perspectives
- Travel and Getting Around

Learning Outcomes

- Listening – Use context and resources to decipher meaning
- Speaking – Sustain a conversation of six to eight turns using suitable pronunciation and intonation.
- Reading – Identify socially and culturally important features of text.
- Writing – Structure a text appropriate to its text type. Demonstrate understanding of frequently used language patterns

Japanese

Completion of Unit 1 – 6 of Obento Supreme or equivalent.

Description

The course is intensive and equips students to cope with VCE Japanese. The emphasis throughout is on communication competence and practical language skills, as well as proficiency in reading and writing Japanese scripts in a variety of contexts. Students will develop skills in understanding modified materials and communicating in a variety of situations.

Topics

Japanese language and culture is taught through the following topics:

- Politeness levels (formal and informal)
- Communication strategies (interviewing, exchanging ideas of school life, note taking and summarising)
- Developing longer and more complex spoken phrases, expressing opinions and hopes in different text types
- Developing an understanding of Japanese culture
- Travel and getting around
- Job seeking

Learning Outcomes

- Listening – Use context and resources to decipher meaning
- Speaking – Sustain a conversation of six to eight turns using suitable pronunciation and intonation.
- Reading – Identify socially and culturally important features of text.
- Writing – Structure a text appropriate to its text type. Demonstrate understanding of frequently used language patterns



Science

VCE Psychology

Unit 1

Area of Study 1: Introduction to psychology

This study introduces the nature and scope of psychology as a scientific discipline. Students learn about the processes involved in psychological research, the evidence-based nature of findings in psychology, and ethical principles in the practice and conduct of psychology and psychological research.

Area of Study 2: Social relationships

This study focuses on behaviour as a consequence of environmental experiences. Examples of pro-social and anti-social behaviour and factors influencing their occurrence are investigated as well as the influence of groups on individual behaviour. Research methods and ethical principles employed in psychological studies are incorporated into the area of study.

Area of Study 3: Development of individual behaviour

This study focuses on the development of perceptual and cognitive abilities. Piaget's theory of cognitive development is considered, together with recent research findings. The development of social cognition and the changes that occur in human being's understanding of themselves as they age is covered.

VCE Psychology

Unit 2

Area of Study 1: Introduction to neurons and nervous system

This study focuses on the structure and role of neurons and the nervous system in the transmission of information. The connections between neurotransmitters, Neuro modulators and disease are also explored. Research methods and ethical principles employed in psychological studies are incorporated into the area of study.

Area of Study 2: Individual differences

This study focuses on scientific ways of describing and measuring 'normality' and individual differences. Methods of psychological assessment are evaluated. Research methods and the ethical principles employed in psychological studies are incorporated into this area of study.

Area of Study 3: Social attitudes

This study examines how attitudes are formed, changed and measured. For the purposes of this study, attitudes are defined as ideas about ourselves, others, objects and experiences. The relationship between attitudes and prejudice is considered. Correlation techniques are applied to a student-designed questionnaire. Research methods and the ethical principles employed in psychological studies are incorporated into this area of study.



VCE Environmental Science

Unit 1: The environment

Area of Study 1: Ecological components and interaction

The Earth's structure may be classified into four major categories: hydrosphere, lithosphere, atmosphere and biosphere. This area of study examines the processes occurring within the spheres of the Earth and the interaction that occur in and between the ecological components of each major category.

Area of Study 2: Environmental change

The environment is not static but undergoes continual change. It can be changed by natural or human-induced factors. Students use scientific data and processes to examine environmental change.

Area of Study 3: Ecosystems

The characteristics of ecosystems are varied and subject to change. The changes within ecosystems can be short or long term, cyclic or random occurrences and caused by natural or human-induced factors.

VCE Environmental Science

Unit 2: Monitoring the environment

Area of Study 1: Environmental indicators

Environmental indicators are physical, chemical, biological or socioeconomic measures that best represent the key elements of a complex ecosystem or environmental issue. Environmental indicators for an ecosystem are investigated and the data interpreted.

Area of Study 2: Using environmental indicators

Environmental indicators are critical for analysing and reporting on the quality of the environment and in managing the maintenance of ecological functioning of systems. A local environmental issue is investigated and monitored using environmental indicators. The use of environmental indicators by a variety of government agencies or corporate organisations is also investigated.