

MELBA COLLEGE

VCE

Course Selection Handbook



2017

Congratulations on your decision to continue your senior secondary education at
Melba College in 2017

Over the coming weeks you will be making important decisions regarding your courses for 2017. Please take the time to read the information in this handbook and discuss this important decision with your family. You should seek advice from your Careers teachers, Year Level Leaders and the Careers professionals.

There are many factors that will influence your course selection decisions. Possibly the most important factor to think about is what you would like to do once you have completed secondary school.

Before deciding on a course for 2017 find information about the following:

- Pre-requisites for tertiary courses at university, college or TAFE
- Tertiary entrance requirements and the selection processes
- ATAR scores and how they are calculated – including how subjects are scaled.

Regardless of the pathway you choose – and the subjects you select – one key piece of advice is offered – choose subjects you enjoy, are good at, and you find interesting. In the event that you approach this process with no clear goal in mind – choose subjects that will allow you to keep your options open.

V.C.E. STUDIES - 2017

ENGLISH

| Subject | Units |
|--|--------------|
| English | 1-4 |
| <u>OR</u> | |
| English as an Additional Language (EAL) | 1-4 |
| English as an Additional Language Bridging | 1-2 |
| <u>AND/OR</u> | |
| Literature | 1-4 |

MATHEMATICS

| Subject | Units | | |
|----------------------|--------------|-------|-------|
| General Mathematics | 1 - 2 | | |
| Mathematical Methods | | 1 - 4 | |
| Further Mathematics | | | 3 - 4 |

THE ARTS

| | | | |
|-------------------------------|---------------------|-------|-------|
| Media | 1 – 4 | | |
| Music | Music Performance | 1 – 2 | |
| | Music Performance | | 3 – 4 |
| | Music Investigation | | 3 – 4 |
| Studio Arts | 1 – 4 | | |
| Dance | 1 – 4 | | |
| Drama | 1 – 4 | | |
| Visual Communication & Design | 1 – 4 | | |

| HUMANITIES & COMMERCE | | | |
|----------------------------------|----------------------------------|--------------|-------|
| Subject | | Units | |
| Accounting | | 1 - 4 | |
| Business Management | | 1 - 4 | |
| Legal Studies | | 1 - 4 | |
| History | 20 TH Century History | 1 - 2 | |
| | Revolutions | | 3 - 4 |

| PE & HEALTH | |
|----------------------------|--------------|
| Subject | Units |
| Health & Human Development | 1 - 4 |
| Physical Education | 1 - 4 |

| LANGUAGES | |
|------------------|--------------|
| Subject | Units |
| Japanese | 1 - 4 |
| German | 1 - 4 |

| SCIENCE | |
|----------------|--------------|
| Subject | Units |
| Biology | 1 - 4 |
| Chemistry | 1 - 4 |
| Psychology | 1 - 4 |
| Physics | 1 - 4 |

| TECHNOLOGY | | |
|------------------------------------|-------|-------|
| Subject | Units | |
| Food & Technology | 1 - 4 | |
| Product Design & Technology - Wood | 1 - 4 | |
| Computing (Information Technology) | 1 - 2 | |
| Computing (Informatics) | | 3 - 4 |

| VET UNITS (Other choices available) |
|--|
| Certificate II in Business |
| Certificate II Music Industry Skills |
| Certificate III Music Industry Skills |
| Certificate II in Interactive Multimedia |
| Certificate II in Hospitality (Operations) |
| Certificate I in Engineering Technology |
| CISCO - CCNA |

COURSE DESCRIPTIONS

The following Course Descriptions reflect the information relating to each Unit/Study published by Victorian Curriculum Assessment Authority. Further information can be gained by accessing the VCAA website – www.vcaa.vic.edu.au – and following the links to Studies.

The following information has been given:

- Name of the Study & in some instances a brief introduction to the subject
- Name of each Unit and a brief description of the content
- The Areas of Study (topics) covered in each unit
- Outcomes – the assessment standard required at each unit.

The Course Descriptions are arranged in alphabetical order.

ACCOUNTING

Unit 1: Establishing and operating a service business

This unit focuses on the establishment of a small business and the accounting and financial management of the business. You will be introduced to the processes of gathering and recording financial data and the reporting and analysing of accounting information by internal and external users. You will examine the role of accounting in the decision-making process for a sole proprietor of a service business.

Areas of Study

1. Going into business
2. Recording financial data and reporting accounting information

Outcomes

By the end of this unit you should be able to:

Outcome 1: Describe the resources required, and explain and discuss the knowledge and skills necessary to set up a small business.

Outcome 2: Identify and record the financial data, and report and explain accounting information for a sole proprietor.

Unit 2: Accounting for a trading business

This unit focuses on accounting for a sole proprietor of a single activity trading business. You will use a single entry recording system and the accrual method for determining profit. You will analyse and evaluate the performance of the business using financial and non-financial information and suggest strategies to the owner on how to improve performance. You will develop your understanding of the importance of ICT by using a commercial accounting software package to establish a set of accounts, record financial transactions and generate accounting reports.

Areas of study

1. Recording financial data and reporting accounting information
2. ICT in accounting
3. Evaluation of business performance

Outcomes

By the end of this unit you should be able to:

Outcome 1: Record financial data and report accounting information for a sole trader

Outcome 2: Record financial data and report accounting information for a single activity sole trader using an accounting software package, and discuss the use of ICT in the accounting process.

Outcome 3: Select and use financial and non-financial information to evaluate the performance of a business and discuss strategies that may improve business performance.

Assessment tasks for Unit 1 and 2 Accounting will be selected from the following:

- exercise/s using a commercial accounting software package
- folio of exercises
- test
- assignment
- case study
- classroom presentation
- report

* Students must use ICT in at least two of the selected assessment tasks.

Unit 3 Recording and Reporting for a Trading Business

This unit focuses on financial accounting for a single activity trading business as operated by a sole trader and emphasises 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. The perpetual method of stock recording with the First In, First Out (FIFO) method is also used. Where appropriate, the accounting procedures developed in each area of study should incorporate the application of accounting principles and the qualitative characteristics of accounting information.

Areas of Study

1. Recording financial data
2. Balance day adjustments and reporting and interpreting accounting information

Outcomes

By the end of this unit you should be able to:

Outcome 1: Record financial data for a single activity sole trader using a double entry system, and discuss the function of various aspects of this accounting system.

Outcome 2: Record balance day adjustments and prepare and interpret accounting reports.

Unit 4 Control and Evaluation of Business Performance

This unit provides an extension of the recording and reporting processes from Unit 3 and the use of financial and non-financial information in assisting management in the decision-making process. The unit is based on the double entry accounting system and the accrual method of reporting for a single activity trading business using the perpetual inventory recording system. Students investigate the role and importance of budgeting for the business and undertake the practical completion of budgets for cash, profit and financial position. Students interpret accounting information from accounting reports and graphical representations, and analyse the results to suggest strategies to the owner on how to improve the performance of the business.

Areas of Study

1. Extension of recording and reporting
2. Financial planning and decision making

Outcomes

By the end of this unit you should be able to:

Outcome 1: Record financial data using double entry accounting and report accounting information using an accrual-based system for a single activity sole trader, and discuss the function of various aspects of this accounting system.

Outcome 2: Prepare budgets and variance reports, evaluate the performance of a business using financial and non-financial information and discuss strategies to improve the profitability and liquidity of the business.

Assessment

Assessment tasks for Accounting may be chosen from the list suggested in the VCAA Study Design 2012-2016 (see Units 1 & 2)

In both Units 3 and 4, at least 30 marks must be allocated to assessment that uses ICT applications.

Unit 3: Outcome 1 (50 marks) Outcome 2 (50 marks)

Unit 4 Outcome 1 (50 marks) Outcome 2 (Task A – 30 marks, Task B – 20 marks)

School Assessed Coursework for Units 3 and 4 will contribute 25% each and the end-of-year examination will contribute 50% to the final score.

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. The role of a keystone species in maintaining the structure of an ecosystem is explored. Students consider how the planet's biodiversity is classified and the factors that affect the growth of a population. Students investigate the survival of an organism or species in Area of Study 3.

Areas of Study

1. How do organisms function?
2. How do living systems sustain life?
3. Practical investigation

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Investigate and explain how cellular structures and systems function to sustain life.

Outcome 2: Explain how various adaptations enhance the survival of an individual organism, investigate the relationships between organisms that form a living community and their habitat, and analyse the impacts of factors that affect population growth.

Outcome 3: Design and undertake an investigation related to the survival of an organism or species, and draw conclusions based on evidence from collected data.

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. Students explore the mechanisms of asexual and sexual reproductive strategies, and consider the advantages and disadvantages of these two types of reproduction. 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. In this context the uses of genetic screening and its social and ethical issues are examined. Students research an issue related to genetics and/or reproductive in Area of Study 3.

Areas of Study

1. How does reproduction maintain the continuity of life?
2. How is inheritance explained?
3. Investigation of an issue

Outcomes

On completion of this unit you should be able to:

Outcome 1: Compare the advantages and disadvantages of asexual and sexual reproduction, explain how changes within the cell cycle may have an impact on cellular or tissue system function and identify the role of stem cells in cell growth and cell differentiation and in medical therapies.

Outcome 2: Apply an understanding of genetics to describe patterns of inheritance, analyse pedigree charts, predict outcomes of genetic crosses and identify the implications of the uses of genetic screening and decision making related to inheritance.

Outcome 3: Investigate and communicate a substantiated response to a question related to an issue in genetics and/or reproductive science.

Assessment

All assessments at Units 1 and 2 are school-based. They may be chosen from the list suggested in the VCAA Biology Study Design 2016 – 2021.

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. Cells communicate with each other using a variety of signalling molecules. 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 the interactions between its components to provide immunity to a specific antigen.

A student practical investigation related to cellular processes and/or biological change and continuity over time is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3.

Areas of Study

1. How do cellular processes work?
2. How do cells communicate?

Outcomes

By the end of this unit you should be able to:

Outcome 1: explain the dynamic nature of the cell in terms of key cellular processes including regulation, photosynthesis and cellular respiration, and analyse factors that affect the rate of biochemical reactions.

Outcome 2: apply a stimulus-response model to explain how cells communicate with each other, outline human responses to invading pathogens, distinguish between the different ways that immunity may be acquired, and explain how malfunctions of the immune system cause disease.

Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 16 per cent to the study score.

Assessment:

For Outcome 1

A report related to at least two practical activities from a practical logbook.

For Outcome 2

At least one task selected from:

- a report of a practical activity
- annotations of activities or investigations from a practical logbook
- a graphic organiser
- a bioinformatics exercise
- an evaluation of research
- media response
- data analysis
- a response to a set of structured questions
- problem solving involving biological concepts, skills and/or issues
- a reflective learning journal/blog related to selected activities or in response to an issue.

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.

A student practical investigation related to cellular processes and/or biological change and continuity over time is undertaken in either Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The findings of the investigation are presented in a scientific poster format.

Areas of Study

1. How are species related?
2. How do humans impact on biological processes?
3. Practical Investigation

Outcomes

On completion of this unit the student should be able to:

Outcome 1: analyse evidence for evolutionary change, explain how relatedness between species is determined, and elaborate on the consequences of biological change in human evolution.

Outcome 2: describe how tools and techniques can be used to manipulate DNA, explain how biological knowledge is applied to biotechnical applications, and analyse the interrelationship between scientific knowledge and its applications in society.

Outcome 3: design and undertake an investigation related to cellular processes and/or biological change and continuity over time, and present methodologies, findings and conclusions in a scientific poster.

Contribution to final assessment

School-assessed Coursework for Unit 4 will contribute 24 per cent to the study score.

End of year exam on Units 3 & 4 – Contribution to assessment: 60%

Assessment:

For Outcome 1

A report using primary or secondary data.

For Outcome 2

A response to an issue

OR

A report of a laboratory investigation

For Outcome 3

A structured scientific poster according to the VCAA template

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
2. External Environment
3. Internal Environment

Outcomes:

On completion of this unit the student should be able to describe:

Outcome 1: how and why business ideas are created and developed, and explain the methods by which a culture of business innovation and entrepreneurship may be fostered in a nation.

Outcome 2: the external environment of a business and explain how the macro and operating factors within it may affect business planning.

Outcome 3: the internal business environment and analyse how factors from within it may affect business planning.

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
2. Marketing a business
3. Staffing a business

Outcomes:

On completion of this unit the student should be able to:

Outcome 1: explain the importance when establishing a business of complying with legal requirements and financial record keeping, and establishing effective policies and procedures.

Outcome 2: explain the importance of establishing a customer base and a marketing presence to achieve the objectives of the business, analyse effective marketing and public relations strategies and apply these strategies to business-related case studies.

Outcome 3: discuss the staffing needs for a business and evaluate the benefits and limitations of management strategies in this area from both an employer and an employee perspective.

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
2. Managing employees
3. Operations management

Outcomes:

On completion of this unit the student should be able to:

Outcome 1: discuss the key characteristics of businesses and stakeholders, and analyse the relationship between corporate culture, management styles and management skills.

Outcome 2: explain theories of motivation and apply them to a range of contexts, and analyse and evaluate strategies related to the management of employees.

Outcome 3: analyse the relationship between business objectives and operations management, and propose and evaluate strategies to improve the efficiency and effectiveness of business operations.

Unit 4: Transforming a business

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

Area of Study

1. Reviewing performance – the need for change
2. Implementing change

On completion of this unit the student should be able to:

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

Outcome 2: evaluate the effectiveness of a variety of strategies used by managers to implement change and discuss the effect of change on the stakeholders of a business.

CHEMISTRY

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

The development and use of materials for specific purposes is an important human endeavour. Students investigate a range of materials from metals and salts to polymers and nanomaterials. 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. 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.

Areas of Study

1. How can knowledge of the elements explain the properties of matter?
2. How can the versatility of non-metals be explained?
3. Research Investigation

Outcomes:

Outcome 1: relate the position of elements in the periodic table to their properties, investigate the structures and properties of metals and ionic compounds, and calculate mole quantities.

Outcome 2: investigate and explain the properties of carbon lattices and molecular substances, name organic compounds, and explain how polymers can be designed for a purpose.

Outcome 3: investigate a selected material or chemical and communicate a substantiated response.

Assessment

Suitable tasks for assessment may be selected from the following:

For Outcomes 1 and 2

- annotations of a practical work folio of activities or investigations
- a report of a practical activity or investigation
- a modelling activity
- media response
- problem-solving involving chemical concepts, skills and/or issues
- a reflective learning journal/blog related to selected activities or in response to an issue
- data analysis
- a test comprising multiple choice and/or short answer and/or extended response.

For Outcome 3

- a report of an independent investigation of a topic selected from Area of Study 1 and/or Area of Study 2, using an appropriate format, for example digital presentation, oral communication or written report.

Unit 2 What makes water such a unique chemical?

Water is the most widely used solvent on Earth. 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 explore the relationship between these bonding forces and the physical and chemical properties of water. They 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.

Areas of Study

1. How do substances interact with water?
2. How are substances in water measured and analysed?
3. Research Investigation

Outcomes:

Outcome 1: relate the properties of water to its structure and bonding, and explain the importance of the properties and reactions of water in selected contexts.

Outcome 2: measure amounts of dissolved substances in water and analyse water samples for salts, organic compounds and acids and bases.

Outcome 3: investigate a selected material or chemical and communicate a substantiated response.

Assessment

For Outcomes 1 and 2 assessment tasks are chosen from the following list

- annotations of a practical work folio of activities or investigations
- a report of a practical activity or investigation
- a modelling activity, data analysis, a media response
- problem solving involving chemical concepts, skills and/or issues
- a reflective learning journal/blog related to selected activities or in response to an issue
- a test comprising multiple choice and/or short answer and/or extended response.

For Outcome 3:

a report of a student-designed quantitative laboratory investigation using an appropriate format, for example digital presentation, oral communication, scientific poster or written report.

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

The global demand for energy and materials is increasing with world population growth. 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. Students analyse manufacturing processes with reference to factors that influence their reaction rates and extent. 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. They use the language and conventions of chemistry including symbols, units, chemical formulas and equations to represent and explain observations and data collected from experiments, and to discuss chemical phenomena. A student practical investigation related to energy and/or food is undertaken either in Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The findings of the investigation are presented in a scientific poster format.

Areas of Study

1. What are the options for energy production?
2. How can the yield of a chemical product be optimised?

Outcomes:

On completion of this unit you should be able to:

Outcome 1 On completion of this unit the student should be able to compare fuels quantitatively with reference to combustion products and energy outputs, apply knowledge of the electrochemical series to design, construct and test galvanic cells, and evaluate energy resources based on energy efficiency, renewability and environmental impact.

Outcome 2 On completion of this unit the student should be able to apply rate and equilibrium principles to predict how the rate and extent of reactions can be optimised, and explain how electrolysis is involved in the production of chemicals and in the recharging of batteries.

Assessment:

For Outcome 1

Analysis and evaluation of stimulus material. OR A report on a laboratory investigation. OR A comparison of two electricity-generating cells. OR A reflective learning journal/blog related to selected activities or in response to an issue. (approximately 50 minutes or not exceeding 1000 words)

For Outcome 2

At least one task selected from:

- annotations of at least two practical activities from a practical logbook
- a report of a student investigation
- an evaluation of research
- analysis of data including generalisations and conclusions
- media analysis/response
- a graphic organiser illustrating a chemical process
- an analysis of an unfamiliar chemical manufacturing process or electrolytic cell
- a response to a set of structured questions. (approximately 50 minutes or not exceeding 1000 words for each task)

Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 16 per cent to the study score.

External assessment

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 60 per cent.

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

The carbon atom has unique characteristics that explain the diversity and number of organic compounds that not only constitute living tissues but are also found in the fuels, foods, medicines and many of the materials we use in everyday life. 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. In this context the role of enzymes and coenzymes in facilitating chemical reactions is explored. Students use calorimetry as an investigative tool to determine the energy released in the combustion of foods. A student practical investigation related to energy and/or food is undertaken in either Unit 3 or in Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The findings of the investigation are presented in a scientific poster format.

Areas of Study

1. How can the diversity of carbon compounds be explained and categorised?
2. What is the chemistry of food?
3. Practical investigation

Outcomes

By the end of this unit you should be able to:

Outcome 1 Compare the general structures and reactions of the major organic families of compounds, deduce structures of organic compounds using instrumental analysis data, and design reaction pathways for the synthesis of organic molecules.

Outcome 2 Distinguish between the chemical structures of key food molecules, analyse the chemical reactions involved in the metabolism of the major components of food including the role of enzymes, and calculate the energy content of food using calorimetry.

Outcome 3 Design and undertake a practical investigation related to energy and/or food, and present methodologies, findings and conclusions in a scientific poster.

Assessment

Outcome 1

At least one task selected from:

- annotations of at least two practical activities from a practical logbook
- a report of a student investigation
- analysis of data including generalisations and conclusions
- media analysis/response
- a response to a set of structured questions
- a reflective learning journal/blog related to comparison of organic structures or pathways. (approximately 50 minutes or not exceeding 1000 words for each task)

Outcome 2

Response to stimulus material. OR A report of a laboratory investigation. OR A comparison of food molecules OR A reflective learning journal/blog related to selected activities or in response to an issue. (approximately 50 minutes or not exceeding 1000 words)

Outcome 3

A structured scientific poster according to the VCAA standard template. (not exceeding 1000 words)

Contribution to assessment

School-assessed Coursework for Unit 4 will contribute 24 per cent to the study score.

End of year exam – Contribution to assessment:

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 60 per cent to the study score.

COMPUTING (INFORMATION TECHNOLOGY)

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.

Areas of Study

1. Data and graphic solutions
2. Networks
3. Collaboration and communication

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Acquire, secure and interpret data, and design and develop a graphic solution that communicates the findings of an investigation.

Outcome 2: Design a network with wireless capability that meets an identified need or opportunity, explain its configuration and predict risks and benefits for intended users.

Outcome 3: Design and develop a website collaboratively with others that presents an analysis of a contemporary issue and the team's point of view on the issue.

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.

Areas of Study

1. Programming
2. Data analysis and visualisation
3. Data management

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Design working modules in response to solution requirements, and use a programming or scripting language to develop the modules.

Outcome 2: Apply the problem-solving methodology and use appropriate software tools to extract relevant data and create a data visualisation that meets a specified user's needs.

Outcome 3: Apply the problem-solving methodology to create a solution using database management software, and explain the personal benefits and risks of interacting with a database.

Assessment

Assessment tasks for **computing** may be chosen from the following list suggested in the VCAA Study Design.

Suitable tasks for assessment in this unit may be selected from the following:

- using digital systems and techniques, create a solution in response to a need or opportunity
- visual presentations
- oral presentations
- written reports.

Where teachers allow students to choose between tasks they must ensure that the tasks they set are of comparable scope and demand.

COMPUTING (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.

Areas of Study

1. Organisations and data management
2. Data analytics: drawing conclusions

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Design a solution, develop it using a relational database management system, and diagrammatically represent how users interact with an online solution when supplying data for a transaction.

Outcome 2: Use a range of appropriate techniques and processes to acquire, prepare, manipulate and interpret complex data to confirm or refute a hypothesis, and formulate a project plan to manage progress.

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.

Areas of Study

1. Data analytics: presenting the findings
2. Information management

Outcomes:

On completion of this unit you should be able to:

Outcome 1: On completion of this unit the student should be able to design, develop and evaluate a multimodal online solution that confirms or refutes a hypothesis, and assess the effectiveness of the project plan in managing progress.

Outcome 2: On completion of this unit the student should be able to compare and contrast the effectiveness of information management strategies used by two organisations to manage the storage and disposal of data and information, and recommend improvements to their current practices.

Assessment

Assessment tasks for **Informatics** may be chosen from the following list suggested in the VCAA Study Design.

The student's level of achievement in Outcome 1 in Unit 3 and Outcome 2 in Unit 4 will be assessed through School-assessed Coursework.

The student's level of achievement in Outcome 2 in Unit 3 and Outcome 1 in Unit 4 will be assessed through a School-assessed Task.

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination.

DANCE

Unit 1 The Body as an Instrument of Expression

In this unit students explore the potential of the body as an instrument of expression. They learn about and develop physical skills. Students discover the diversity of expressive movement by exploring body actions, and commence the process of developing a personal movement vocabulary. They also begin to develop skills in documenting and analysing movement and develop understanding of how choreographers use these processes. Knowledge of physiology, including care and maintenance of the body, is applied to the execution of body actions through the safe application of physical skills. Students develop and perform movement studies and dances with unified compositions created through a range of movement creation processes. They discuss influences on their own dance backgrounds and on the expressive intentions and movement vocabulary in their own dances.

Areas of Study

1. Dance Perspectives
2. Choreography and Performance
3. Dance Technique and Performance
4. The Body: Physiology and Maintenance

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Analysis of own and other dance works (Written form)

Outcome 2: Choreography and Performance of a solo or group dance

Outcome 3: Learn and Perform a Group Dance

Outcome 4: Maintenance and Physiology of a Dancers Body Presentation

Unit 2 Personal Movement Vocabulary and Choreography Skills

This unit focuses on expanding students' personal movement vocabulary and choreographic skills through the exploration of the elements of movement: time, space and energy and the study of form. Students apply their understanding of form and the expressive capacity of the elements of movement to the dance-making and performing processes involved in choreographing and performing their own dance works and dance works created by others. Students are also introduced to dance traditions, styles and works. Dance traditions, styles and works selected for study might encompass dance traditions of indigenous cultures or other culturally specific dance through to the works of ballet choreographers, modern dance, early musical theatre/film choreography and the work of tap/jazz or street performers. Students describe the movement vocabulary in their own and others' dances by identifying expressive body actions and ways the elements of movement have been manipulated. Students also analyse and discuss the communication of their own and other choreographers' intentions, through the structuring of form, and the choreographic and expressive use of the elements of movement. This analysis supports students' understanding of the link between theoretical and practical aspects of each area of study.

Areas of Study

1. Dance Perspectives
2. Choreography, Performance and Dance-making Analysis
3. Dance Technique, Performance Dance Analysis

Outcomes

On completion of this unit you should be able to:

Outcome 1: Analysis of a dance style / tradition (written)

Outcome 2: Choreograph and Perform a Solo or Group Dance Work

Outcome 3: Learn and Perform a Solo or Group Dance Work

Assessment

Assessment tasks for Drama may be chosen from the following list suggested in the VCAA Dance Study Design

- Group / solo performances
- written report
- structured improvisation workshops
- rehearsals
- oral presentation
- multimedia presentations

Unit 3

This unit focuses on choreography, rehearsal and performance of a solo dance work and involves the execution of a diverse range of body actions and use of performance skills. Students also learn a group dance work created by another choreographer. The dance-making and performance processes involved in choreographing, rehearsing and performing the solo dance work, and learning, rehearsing and performing the learnt group dance work are analysed. This analysis connects each student's own work as a choreographer to the work of professional choreographers. Students further develop their understanding of choreographic skills through an analysis of ways that the expressive intentions chosen by choreographers of twentieth and/or twenty-first century solo dance works selected from the Prescribed list of works Units 3 and 4 are developed through the use of choreographic devices and arrangement of phrases and sections. Students analyse the dance design and use of movement vocabulary of selected works, as well as consider influences on the choreographers' choice of expressive intention, and production aspects of the dance works.

Areas of Study

1. Dance Perspectives
2. Choreography, Performance and Dance-making Analysis
3. Dance Technique, Performance and Dance Analysis

Outcomes

By the end of this unit you should be able to:

Outcome 1: Analyse solo dance works from the prescribed VCAA solo dance works

Outcome 2: Choreograph and perform and analyse a technique solo

Outcome 3: Learn, rehearse and perform a group dance work by another choreographer

Contribution to assessment: 15%

Unit 4

This unit focuses on choreography, rehearsal and performance of a unified solo dance work. When rehearsing and performing this work students focus on expressive and accurate execution of choreographic variations of spatial organisation and demonstration of artistry in performance. Students also document and analyse the dance-making and performance processes involved in the choreography, rehearsal and performance of the solo dance work. Students' understanding of choreographic skills is also developed and refined through an analysis of ways in which the choreographers' intention can be expressed through the manipulation of different types of group structures. These include unison, canon, contrast, symmetrical and asymmetrical groupings and formations. Students also analyse the use of the elements of spatial organisation – direction, level, eye/body focus and dimension – in a group dance work by a twentieth and/or twenty-first century choreographer. Influences on choices made by choreographers in these works are also studied.

Areas of Study

1. Dance Perspectives
2. Choreography, Performance and dance-making analysis

Outcomes

By the end of this unit you should be able to:

1. Outcome One: Analyze a prescribed group dance work

2. Outcome Two: Choreograph, rehearse and perform a composition solo dance work with a clear expressive intention

Contribution to assessment: 10%

Solo Performance (technique and Composition) to VCAA Assessors: 50%

End of year exam – Contribution to assessment: 25%

DRAMA

Unit 1 Dramatic Storytelling

This unit focuses on creating, presenting and analysing a devised performance that includes real or imagined characters, based on personal, cultural and/or community experiences and stories. Students examine storytelling through the creation of solo and/or ensemble devised performance/s and manipulate expressive skills in the creation and presentation of characters. Students also gain an awareness of how performance is shaped and given meaning. This unit also involves analysis of a student's own performance work and analysis of a performance by professional and other drama practitioners.

Areas of Study

1. Creating a devised performance
2. Presenting a devised performance
3. Analysing a devised performance
4. Analysing drama performances presented by other practitioners

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Creation of a Devised Performance (Written form)

Outcome 2: Presentation of a Devised Performance

Outcome 3: Analysis questions of Devised Performance

Outcome 4: Analysis questions of Devised Performance

Unit 2 Creating Australian Drama

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 art work, a text and/or an icon from a contemporary or historical Australian context. This unit also involves analysis of a student's own performance work as well as the performance of an Australian work.

Areas of Study

1. Using Australia as inspiration
2. Presenting a devised performance
3. Analysing a devised performance
4. Analysing Australian drama performance

Outcomes

On completion of this unit you should be able to:

Outcome 1: Creation of a Devised Performance (Written form)

Outcome 2: Presentation of a Devised Performance

Outcome 3: Analysis questions of Devised Performance (Outcomes 1 & 2)

Outcome 4: A Written Analysis

Assessment

Assessment tasks for Drama may be chosen from the following list suggested in the VCAA Drama Study Design

- ensemble/solo performances
- written report
- structured questions
- rehearsals
- essay
- oral presentation
- script creation
- multimedia presentations

Subject Cost: \$60

Unit 3 Ensemble Performance

This unit focuses on non-naturalistic drama from a diverse range of contemporary and/or cultural performance traditions. Students use and manipulate dramatic elements, expressive skills and performance styles to enhance performance. They select stagecraft and theatrical conventions as appropriate to the performance. Students also document and evaluate stages involved in the creation, development and presentation of the ensemble performance. A professional performance that incorporates non-naturalistic performance style/s and production elements selected from the prescribed *VCE Unit 3 Drama Playlist* published annually in the *VCAA Bulletin* will also be analysed.

Areas of Study

1. Creating and presenting ensemble performance
2. Responding to ensemble performances
3. Analysing non-naturalistic performance

Outcomes

By the end of this unit you should be able to:

Outcome 1: Develop and present character/s within a non-naturalistic ensemble performance.

Outcome 2: Analyse play-making techniques used to construct and present ensemble works including the work created for Outcome 1.

Outcome 3: Analyse and evaluate a non-naturalistic performance selected from the prescribed playlist.

Contribution to assessment: 30%

Unit 4 Solo Performance

This unit focuses on the development and presentation of non-naturalistic devised solo performances. Students explore non-naturalistic performance styles and associated conventions from a diverse range of contemporary and cultural performance traditions. They develop skill in extracting dramatic potential from stimulus material and use dramatic elements, conventions, performance styles and performance and expressive skills to develop and present a short solo performance. These skills are further developed as students create a devised solo performance in response to a prescribed structure. Students also document and evaluate the stages involved in the creation, development and presentation of a solo performance. Students are encouraged to attend performances that incorporate non-naturalistic performance styles to support their work in this unit.

Areas of Study

1. Processes used to create solo performances
2. Creating a solo performance
3. Analysing solo performance

Outcomes

By the end of this unit you should be able to:

Outcome 1: Create, develop and perform a short solo performance based on stimulus material, and evaluate the processes used.

Outcome 2: Describe, analyse and evaluate the creation, development and presentation of a solo performance.

Contribution to assessment: 10%

Main Solo Performance to VCAA Assessors: 35%

End of year exam – Contribution to assessment: 25%

Assessment

Assessment tasks for Drama may be chosen from the list suggested in the VCAA Drama Study Design 2015-2018 (see Units 1& 2)

Subject Cost: \$60

ENGLISH

Unit 1

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.

Areas of Study

1. Reading and creating texts
2. Analysing and presenting argument

Outcomes:

On completion of this unit you should be able to:

Outcome 1: produce analytical and creative responses to texts

Outcome 2: analyse how argument and persuasive language can be used to position audiences, and create their own texts intended to position audiences

Unit 2

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.

Areas of Study

1. Reading and comparing texts
2. Analysing and presenting argument

Outcomes:

On completion of this unit you should be able to:

Outcome 1: compare the presentation of ideas, issues and themes in two texts.

Outcome 2: identify and analyse how argument and persuasive language are used in text/s that attempt to influence an audience, and create a text which presents a point of view.

Assessment

Assessment tasks for English may be chosen from the following list suggested in the VCAA Study Design.

- an analytical response to a set text
- a creative response to a set text such as a monologue, script or short story
- an analysis of the use of argument and persuasive language in text/s
- an oral presentation of a point of view intended to position an audience
- a comparative analytical response to set texts
- a persuasive text that presents an argument or viewpoint

Unit 3

In this unit students read and respond to texts analytically and creatively. They analyse arguments and the use of persuasive language in texts. Texts selected for study in Area of Study 1 must be chosen from the Text List published annually by the VCAA. The texts selected for study in Unit 3 Area of Study 2 must have appeared in the media since 1 September of the previous year. The term 'selected text' refers to a text chosen from the list of prescribed texts in the Text List published by the VCAA.

Areas of Study

1. **Reading and Creating Texts:** In this area of study students identify, discuss and analyse how the features of selected texts create meaning and how they influence interpretation. Students prepare sustained analytical interpretations of selected texts, discussing how features of the text, create meaning and using textual evidence to support their responses. Students present sustained creative responses to selected texts, demonstrating their understanding of the world of the texts and how texts construct meaning.

2. **Analysing Argument:** In this area of study students analyse and compare the use of argument and language in texts that debate a topical issue. The texts must have appeared in the media since 1 September of the previous year. Considering information about the purpose, audience and context of a text, students explore the argument of a persuasive piece, and the way written, spoken and visual language is used. Students develop written and spoken critical analyses of the use of argument and language in written, spoken, and/or multimodal texts, including analysis of the quality of the reasoning presented and the use of features intended to position audiences.

Outcomes

By the end of this unit you should be able to:

Outcome 1: On completion of this unit the student should be able to produce an analytical interpretation of a selected text, and a creative response to a different selected text.

Outcome 2: On completion of this unit the student should be able to analyse and compare the use of argument and persuasive language in texts that present a point of view on an issue currently debated in the media.

Contribution to assessment: 25%

Unit 4

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. Texts selected for Area of Study 1 must be chosen from the Text List published annually by the VCAA. The issues selected for Area of Study 2 must have appeared in the media since 1 September of the previous year, but need not be the same as the issue selected for study in Unit 3. The term 'selected texts' refers to a combination of texts chosen from the list of prescribed texts for comparative study in the Text List published by the VCAA.

Areas of Study

1. **Reading and Comparing Texts:** In this area of study students explore the meaningful connections between two texts. They analyse texts, including the interplay between character and setting, voice and structure, and how ideas, issues and themes are conveyed. By comparing the texts, they gain a deeper understanding of the ideas, issues and themes that reflect the world and human experiences.

2. **Presenting Argument:** In this area of study students build their understanding of both the analysis and construction of texts that attempt to influence audiences. They use their knowledge of argument and persuasive language as a basis for the development of their own persuasive texts in relation to a topical issue that has appeared in the media since 1 September of the previous year.

Outcomes

By the end of this unit you should be able to:

Outcome 1: On completion of this unit the student should be able to produce a detailed comparison which analyses how two selected texts present ideas, issues and themes.

Outcome 2: On completion of this unit the student should be able to construct a sustained and reasoned point of view on an issue currently debated in the media

Contribution to assessment: 25%

End of year exam – Contribution to assessment: 50%

ASSESSMENT:

Assessment tasks for English include:

- Oral presentations
- Imaginative Texts
- Comparative Analysis Essays
- Text response essays
- Analysis of persuasive language in media texts

BRIDGING ENGLISH AS AN ADDITIONAL LANGUAGE

Unit 1

In this unit, students will build their ability to listen, speak, read and write for everyday and academic purposes. They explore how language features, structures and conventions can be used to express ideas and opinions, and to create their own spoken and written texts.

Areas of Study

1. English for everyday and academic purposes
2. English for self-expression

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Engage with and understand everyday and accessible academic texts, and produce their own everyday and academic texts

Outcome 2: Understand texts for self-expression and produce texts for self-expression

Unit 2

In this unit, students will build their understanding of how English is constructed and used to communicate in a variety of contexts and for a range of purposes.

Areas of Study

1. English literature
2. English in the media

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Understand and respond to literary texts and create their own literary texts

Outcome 2: Explain how a variety of media texts position audiences, and produce texts which attempt to position audiences

Assessment

Assessment tasks for **Bridging English as an Additional Language** may be chosen from the following list suggested in the VCAA Study Design.

- role-plays
- presentations
- interviews
- group work and discussion
- short-answer or multiple-choice questions
- journal entries
- personal letters
- blogs
- emails
- letters to the editor
- essays
- reports
- biographies and/or autobiographies
- factual articles
- comprehension and analysis activities
- advertisements.

ENGLISH AS AN ADDITIONAL LANGUAGE

Unit 1

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.

Areas of Study

1. Reading and creating texts
2. Analysing and presenting argument

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Produce analytical and creative responses to texts.

Outcome 2: Analyse how argument and persuasive language can be used to position audiences, and create their own texts intended to position audiences.

Unit 2

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.

Areas of Study

1. Reading and comparing texts
2. Analysing and presenting argument

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Compare the presentation of ideas, issues and themes in two texts.

Outcome 2: Identify and analyse how argument and persuasive language are used in text/s that attempt to influence an audience, and create a text which presents a point of view.

Assessment

Assessment tasks for **English as an Additional Language** may be chosen from the following list suggested in the VCAA Study Design:

- an analytical response to a set text
- a creative response to a set text such as a monologue, script, short story, illustrated narrative, short film or graphic text
- an analysis of the use of argument and persuasive language in text/s
- a text intended to position an audience.
- a comparative analytical response to set texts
- a persuasive text that presents an argument or viewpoint

Unit 3 English as an Additional Language or Dialect

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

Areas of Study

1. Reading and Creating Texts
2. Analysing Argument
3. Listening to texts

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Produce an analytical interpretation of a selected text and a creative response of a different selected text.

Outcome 2: Analyse and compare the use of argument and persuasive language in texts that present a point of view on an issue currently debated in the media.

Outcome 3: Comprehend a spoken text

Contribution to assessment: 25%

Unit 4 English as an Additional Language or Dialect

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.

Areas of Study

1. Reading and Comparing Texts
2. Presenting Argument

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Produce a detailed comparison which analyses how two selected texts present ideas, issues and themes.

Outcome 2: Construct a sustained and reasoned point of view on an issue currently debated in the media.

Contribution to assessment: 25%

End of year exam – Contribution to assessment: 50%

Assessment

Assessment tasks for **English as an Additional Language or Dialect** may be chosen from the list suggested in the VCAA **English as an Additional Language** Study Design 2016-2020

FOOD STUDIES

Unit 1 Food origins

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

Areas of Study

1. Food around the world
2. Food in Australia

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Identify and explain major factors in the development of a globalised food supply, and demonstrate adaptations of selected food from earlier cuisines through practical activities.

Outcome 2: Describe patterns of change in Australia's food industries and cultures, and use foods indigenous to Australia and those introduced through migration in the preparation of food products.

Unit 2 Food Makers

In this unit students investigate food systems in contemporary Australia. Students gain insight into the significance of food industries to the Australian economy and investigate the capacity of industry to provide safe, high-quality food that meets the needs of consumers.

Areas of Study

1. Food industries
2. Food in the home

Outcomes

On completion of this unit you should be able to:

Outcome 1: Describe Australia's major food industries, analyse relationships between food suppliers and consumers, discuss measures in place to ensure a safe food supply and design a brief and a food product that demonstrates the application of commercial principles.

Outcome 2: Compare and evaluate similar foods prepared in different settings, explain the influences on effective food provision and preparation in the home, and design and create a food product that illustrates potential adaptation in a commercial context.

Materials Fees

A charge of \$150 is applicable to Unit 1 and Unit 2 Food & Technology

Unit 3 Food in daily life

This unit investigates the many roles and everyday influences of food. Area of Study 1 explores the science of food: our physical need for it and how it nourishes and sometimes harms our bodies. Students investigate the physiology of eating and appreciating food, and the microbiology of digestion. Area of Study 2 focuses on influences on food choice: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments. Students inquire into the role of food in shaping and expressing identity and connectedness and the ways in which food information can be filtered and manipulated. They investigate behavioural principles that assist in the establishment of lifelong, healthy dietary patterns.

Areas of study

1. The science of food
2. Food choice, health and wellbeing

Outcomes

On completion of this unit you should be able to:

Outcome 1: Explain the processes of eating and digesting food and absorption of macronutrients, explain causes and effects of food allergies, food intolerances and food contamination, analyse food selection models, and apply principles of nutrition and food science in the creation of food products.

Outcome 2: Explain and analyse factors affecting food access and choice, analyse the influences that shape an individual's food values, beliefs and behaviours, and apply practical skills to create a range of healthy meals for children and families

Unit 4 Food issues, challenges and futures

In this unit students examine debates about global and Australian food systems. Area of Study 1 focuses on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land. Area of Study 2 focuses on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices.

Areas of study

1. Environment and ethics
2. Navigating food information

Outcomes

On completion of this unit you should be able to:

Outcome 1: Explain a range of food systems issues, respond to a selected debate with analysis of problems and proposals for future solutions, apply questions of sustainability and ethics to the selected food issue and develop and create a food repertoire that reflects personal food values and goals.

Outcome 2: Explain a variety of food information contexts, analyse the formation of food beliefs, evaluate a selected food trend, fad or diet and create food products that meet the Australian Dietary Standards.

Materials Fees

A charge of \$150 is applicable to Unit 3 and 4 Food & Technology

HEALTH AND HUMAN DEVELOPMENT

Unit 1: The Health and Development of Australia's Youth

In this unit students are introduced to the concepts of health and individual human development. The World Health Organization (WHO) defines health as 'a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (World Health Organization, 1946). The WHO's definition is still widely used today, despite the identification of a number of limitations. This unit focuses on the health and individual human development of Australia's youth. There are many factors that influence health and individual human development of youth, including the importance of nutrition. In this unit students identify issues that have an impact on the health and individual human development of Australia's youth. Students investigate one health issue in detail and analyse personal, community and government strategies or programs that affect youth health and individual human development.

Areas of Study

1. Understanding youth health and human development
2. Youth issues

Outcomes

By the end of this unit you should be able to:

Outcome 1: Describe the dimensions of, and the interrelationships within and between, youth health and individual human development, and analyse the health status of Australia's youth using appropriate measurements.

Outcome 2: Describe and explain the factors that have an impact on the health and individual human development of Australia's youth, outline health issues relevant to Australia's youth and, in relation to a specific health issue, analyse strategies or programs that have an impact on youth health and development.

Unit 2: Individual Human Development and Health Issues

This unit focuses on the health and individual human development for the lifespan stages of prenatal, childhood and adulthood. The prenatal stage is characterised as the most rapid time of growth and physical development during the human lifespan. During this stage the health and development of the embryo/foetus is shaped by a range of determinants, which in turn can have an impact on future health and development. Health and development during childhood has also been identified as having a significant impact on both health and development throughout the rest of the lifespan. There are many determinants of health and development of Australia's children; however, social factors such as family and community are crucial, as children develop through their relationships with others. In this unit students identify issues that affect the health and individual human development of Australia's mothers and babies, children and adults. Students investigate health issues in detail and analyse personal, community and government strategies and programs that affect the health and individual human development of mothers and babies, children and adults.

Areas of Study

1. Prenatal health and individual development
2. Child health and individual development
3. Adult health and individual development

Outcomes

By the end of this unit you should be able to:

Outcome 1: Describe and explain factors that affect the health and individual human development during the prenatal stage.

Outcome 2: Describe and explain factors that affect the health and individual human development of Australia's children.

Outcome 3: Describe and explain the factors that affect the health and individual human development of Australia's adults.

Assessment

Assessment tasks for Health and Human Development may be chosen from the list suggested in the VCAA Study Design 2015-2017.

Unit 3: Australia's Health

This unit focuses on the health status of Australians and how they can be measured in many ways, such as consideration of burden of disease, health adjusted life expectancy, disability adjusted life years (DALYs), life expectancy, under-five mortality rate, mortality and morbidity rates, incidence and prevalence of disease. The National Health Priority Areas (NHPAs) initiative provides a national approach that aims to improve health status in the areas that contribute most of the burden of disease in Australia. Regardless of how health is measured, health is not shared equally by all Australians. Different levels of health are experienced by different groups, which can be attributed to the determinants of health, including the physical environment, biological, behavioural and social. Both government and non-government organisations play an important role in the implementation of a range of initiatives designed to promote health in Australia.

Areas of Study

1. Understanding Australia's health
2. Promoting health in Australia

Outcomes

By the end of this unit you should be able to:

Outcome 1: Compare the health status of Australia's population with that of other developed countries, compare and explain the variations in health status of population groups within Australia and discuss the role of the National Health Priority Areas in improving Australia's health status.

Part 1A- A response on the relative health status of Australians

Part 1B- A response to the National Health Priority Areas

Outcome 2: Discuss and analyse approaches to health and health promotion, and describe Australia's health system and the different roles of government and nongovernment organisations in promoting health.

Contribution to assessment: 25%

Unit 4: Global Health and Human Development

This unit takes a global perspective on achieving sustainable improvements in health and human development.

Areas of Study

1. Introducing global health and human development
2. Promoting global health and human development

Outcomes

By the end of this unit you should be able to:

Outcome 1: Analyse factors contributing to variations in health status between Australia and developing countries, and evaluate progress towards the United Nations' Millennium Development Goals.

Part 1A: A response on the variations in health status between developing countries and Australia

Part 1B: A response on the contribution of the Millennium Development Goals to global health and sustainable human development

Outcome 2: Describe and evaluate programs implemented by international and Australian government and non-government organisations, and analyse the interrelationships between health, human development and sustainability.

Contribution to assessment: 25%

End of year exam- Contribution to assessment: 50%

Assessment

Assessment tasks for Health and Human Development may be chosen from the list suggested in the VCAA Study Design 2015-2017

HISTORY

Unit 1 20th Century History: 1900-1945

In Unit 1 students explore the nature of political, social and cultural change in the period between the world wars. World War One is regarded by many as marking the beginning of twentieth century history since it represented such a complete departure from the past and heralded changes that were to have an impact for decades to come. 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. The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political, economic and social changes.

Areas of Study

1. Ideology and Conflict
2. Social and Cultural Change

Outcomes:

On completion of this unit you should be able to:

Outcome 1: explain the consequences of the peace treaties which ended World War One, the impact of ideologies on nations and the events that led to World War Two.

Outcome 2: explain patterns of social life and cultural change in one or more contexts, and analyse the factors which influenced changes to social life and culture, in the inter-war years

Unit 2 20th Century History: 1945-2000

This unit explores 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. 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. The period also saw challenge and change to the established order in many countries. 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.

Areas of Study

1. Competing Ideologies
2. Challenge and Change

Outcomes

On completion of this unit you should be able to:

Outcome 1: explain the ideological divisions in the post-war period and analyse the nature, development and impact of the Cold War on nations and people, in relation to one or more particular conflicts in the period.

Outcome 2: explain the causes and nature of challenge and change in relation to two selected contexts in the second half of the twentieth century and analyse the consequences for nations and people.

Assessment

Assessment tasks 20th Century History may be chosen from the following list suggested in the VCAA History Study Design

- analytical exercises
- annotated maps
- short reports
- essays
- oral presentations
- multimedia presentations
- biographical studies

Unit 3 & 4: Russian & Chinese Revolutions

Russian Revolution Coronation of Tsar Nicholas 1896 – End of the NEP 1927)

Chinese Revolution (The Chinese Republic 1912 – Death of Mao 1976)

Revolutions are the great disjuncture of modern times and mark deliberate attempts at new directions. They share the common aim of breaking with the past by destroying the regimes and societies that engender them and embarking on a program of political and social transformation. As processes of dramatically accelerated social change, revolutions have a profound impact on the country in which they occur, as well as important international repercussions.

Because revolutions involve destruction and construction, dispossession and liberation, they polarise society and unleash civil war and counter-revolution, making the survival and consolidation of the revolution the principal concern of the revolutionary state. In defence of the revolution, under attack from within and without, revolutionary governments often deploy armed force and institute policies of terror and repression. The process of revolution concludes when a point of stability has been reached and a viable revolutionary settlement made.

Areas of Study for both Revolutions

1. Causes of Revolution
2. Consequences of Revolution

Outcomes for both Revolutions

By the end of this unit you should be able to:

Outcome 1: Analyse the causes of revolution, and evaluate the contribution of significant ideas, events, individuals and popular movements.

Outcome 2: Analyse the consequences of revolution and evaluate the extent of change brought to society.

Contribution to assessment: Each revolution will contribute 25% to the overall study score

Assessment

Assessment tasks for Unit 3 and 4 History will be chosen from the list suggested in the VCAA History Study Design 2016-2020. They include:

- Research Task / Short Answer Questions
- Analysis of Written/Visual Sources (Documents, Cartoons, Paintings, Posters, Speeches etc...)
- Historiography Exercise
- Essay

End of Year Exam Contribution: 50%

LEGAL STUDIES

Unit 1: Criminal Law in action

In this unit, you will examine the need for laws in society. You will investigate the key features of criminal law, how it is enforced and adjudicated and possible outcomes and impacts of crime. Through a consideration of contemporary cases and issues, you will learn about different types of crimes and explore rights and responsibilities under criminal law. You will also consider the role of parliament and subordinate authorities in law-making, as well as the impact of the Victorian Charter of Rights and Responsibilities on law enforcement and adjudication in Victoria. You will investigate the processes and procedures followed by courts in hearing and resolving criminal cases. You will explore the main features and operations of criminal courts and consider the effectiveness of the criminal justice system in achieving justice.

Areas of Study

1. Law in Society
2. Criminal Law
3. The Criminal Courtroom

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain the need for effective laws and describe the main sources and types of law in society.

Outcome 2: Explain the key principles and types of criminal law; apply the key principles to relevant cases, and discuss the impact of criminal activity on the individual and society.

Outcome 3: Describe the processes for the resolution of criminal cases and discuss the capacity of these processes to achieve justice.

Unit 2: Issues in Civil Law

In this unit, you will examine the rights that are protected by civil law, as well as obligations that laws impose. You will investigate types of civil laws, related cases and issues, and develop an appreciation of the role of civil law in society and how it affects people as individuals. You will also focus on the resolution of civil disputes through judicial determination and alternative methods in courts, tribunals and independent bodies. You will examine these methods of dispute resolution and evaluate their effectiveness. You will focus on cases that have had a broader impact on the legal system and on the rights of individuals. You will develop an appreciation of the role played by such cases and undertake an analysis of relevant legal issues.

Areas of Study

1. Civil law
2. The civil law in action
3. The law in focus
4. A question of rights

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain the principles of civil law, law-making by courts and elements of torts and apply these to relevant cases.

Outcome 2: Explain and evaluate the processes for the resolution of civil disputes.

Outcome 3: Explain one or more areas of civil law and discuss the legal system's capacity to respond to issues and disputes related to the selected area/s of law.

Outcome 4: Describe an Australian case illustrating rights issues, and discuss the impact of the case on the legal system and the rights of individuals.

Assessment Tasks (to be selected from)

- Mock court or role play
- A folio and report
- Essays or structured assignments
- Tests
- Case study
- Report (written, visual, oral or multi-media)

Unit 3: Law-making

Students develop an understanding of the institutions that determine our laws, and their law-making powers and processes. They evaluate the effectiveness of law-making bodies and examine the need for the law to keep up to date with changes in society. Students investigate the key features and operation of parliament and influences on law-making. Students develop an understanding of the importance of the Constitution, and undertake a comparative analysis with another country. They learn the importance of the role played by the High Court in interpreting and enforcing the Constitution. Students investigate the nature and importance of courts as law-makers and evaluate their effectiveness. They also investigate the relationships that exist between parliaments and courts.

Areas of study

1. Parliament and the citizen
2. The Constitution and the protection of rights
3. Role of the courts in law-making

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain the structure and role of parliament, including its processes and effectiveness as a law-making body, describe why legal change is needed, and the means by which such change can be influenced (25 marks).

Outcome 2: Explain the role of the Commonwealth Constitution in defining law-making powers within a federal structure, analyse the means by which law-making powers may change, and evaluate the effectiveness of the Commonwealth Constitution in protecting human rights (50 marks).

Outcome 3: Describe the role and operation of courts in law-making, evaluate their effectiveness as law-making bodies and discuss their relationship with parliament (25 marks).

School-assessed coursework for Unit 3 will contribute 25% to the study score. The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50% to the study score.

Unit 4: Dispute resolution

Students examine the institutions that adjudicate criminal cases and civil disputes. They also investigate methods of dispute resolution that can be used as an alternative to civil litigation. Students investigate the processes and procedures followed in courtrooms and develop an understanding of the adversary and jury systems, as well as pre-trial and post-trial procedures that operate in the Victorian legal system. Using the elements of an effective legal system, students consider the extent to which court processes and procedures contribute to the effective operation of the legal system. They also consider reforms or changes that could further improve its effective operation.

Areas of study

1. Dispute resolution methods
2. Court processes and procedures, and engaging in justice

Outcomes

By the end of this unit you should be able to:

Outcome 1: Describe and evaluate the effectiveness of institutions and methods for the determination of criminal cases and the resolution of civil disputes (40 marks).

Outcome 2: Explain the processes and procedures for the resolution of criminal cases and civil disputes, and evaluate their operation and application, and evaluate the effectiveness of the legal system (60 marks).

School-assessed coursework for Unit 4 will contribute 25% to the study score. The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50% to the study score.

Assessment tasks for units 3 and 4 will be selected from: a case study, structured questions, test, essay, report in written format, report in multimedia format, folio of exercises.

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.

Areas of Study

1. Reading Practices
2. Ideas and concerns in texts

Outcomes:

Outcome 1: On completion of this unit the student should be able to respond to a range of texts and reflect on influences shaping these responses.

Outcome 2: On completion of this unit the student should be able to analyse the ways in which a selected text reflects or comments on the ideas and concerns of individuals and particular groups in society.

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.

Areas of Study

1. The text, the reader and their contexts
2. Exploring connections between texts

Outcomes

Outcome One: On completion of this unit the student should be able to analyse and respond critically and creatively to the ways a text from a past era and/or a different culture reflect or comment on the ideas and concerns of individuals and groups in that context.

Outcome Two: On completion of this unit the student should be able to compare texts considering the dialogic nature of texts and how they influence each other.

Assessment

Assessment tasks for this unit may include:

- essay (comparative, interpretive, analytical or discursive);
- debate;
- journal entries;
- close analysis of selected passages;
- an original piece of writing responding to a text(s) studied;
- oral or written review;
- multimedia presentation;
- participation in an online discussion;
- performance and commentary.

* At least one of the assessment tasks must be in an oral form

Unit 3

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.

Areas of Study

1. Adaptations and Transformations: In this area of study students focus on how the form of text contributes to the meaning of the text. Students develop an understanding of the typical features of a particular form of text and how the conventions associated with it are used.

2. Creative Responses to Texts: In this area of study students focus on the imaginative techniques used for creating and recreating a literary work. Students use their knowledge of how the meaning of texts can change as form changes to construct their own creative transformations of texts

Outcomes

By the end of this unit you should be able to:

Outcome 1: On completion of this unit the student should be able to analyse the extent to which meaning changes when a text is adapted to a different form.

Outcome 2: On completion of this unit the student should be able to respond creatively to a text and comment on the connections between the text and the response.

Contribution to assessment: 25%

Unit 4

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.

Areas of Study

1. Literary Perspectives: In this area of study students focus on how different readings of texts may reflect the views and values of both writer and reader. Students consider the ways in which various interpretations of texts can contribute to understanding.

2. Close analysis: In this area of study students focus on detailed scrutiny of the language, style, concerns and construction of texts. Students attend closely to textual details to examine the ways specific features and/or passages in a text contributes to their overall interpretations.

Outcomes

By the end of this unit you should be able to:

Outcome One: On completion of this unit students should be able to produce an interpretation of a text using different literary perspectives to inform their view.

Outcome Two: Analyse critically features of a text, relating them to an interpretation of the text as a whole.

Contribution to assessment: 25%

End of year exam – Contribution to assessment: 50%

LANGUAGES - GERMAN

Unit 1 German

In Units 1 and 2, you will study themes and topics, grammar, text types, vocabulary and writing styles. These are common to all four units of the study, and are drawn upon as appropriate to your linguistic needs, and the outcomes for the unit. Themes and topics form the subject of the activities and tasks through which you will develop your skills. Common themes have been selected to provide the opportunity for you to build upon what is familiar, as well as develop knowledge.

Areas of Study

1. VCE Topics: Personal ID, Youth & Social issues, Leisure & Freetime, Art & Entertainments [Songs]
2. Text Types & Writing Styles
3. Language & Culture through Texts
4. Vocabulary & Grammar

Outcomes:

On completion of this unit you should be able to:

Outcome 1: conduct a spoken or written exchange related to personal areas of experience.

Outcome 2: listen to, read and obtain information from spoken and written texts.

Outcome 3: produce a personal response to a text focusing on real or imaginary experience.

Unit 2 German

Content description as for Unit 1 above.

Areas of Study

1. VCE Topics: Art & Entertainments Cont [Film review], Tourism [Germany/Australia], Eco Tourism, Environment, Art & Entertainments [Grimms Fairytales]
2. Text Types & Writing Styles
3. Language & Culture through Texts
4. Vocabulary & Grammar

Outcomes

On completion of this unit you should be able to:

Outcome 1: participate in a spoken or written exchange related to making arrangements and completing transactions.

Outcome 2: listen to, read, extract and use information from spoken and written texts.

Outcome 3: give expression to real or imaginary experience in spoken or written form.

Assessment

Assessment tasks for German Units 1 and 2 may be chosen from the following list suggested in the VCAA German Study Design

Unit 1

Outcome 1: informal conversation **or** reply to personal letter/fax/email.

Outcome 2: listen to spoken texts **and** read written texts to obtain information to complete notes, charts or tables in German or English.

Outcome 3: oral presentation **or** review **or** article.

Unit 2

Outcome 1: formal letter **or** fax, **or** email **or** role-play **or** interview.

Outcome 2: listen to spoken texts **and** read written texts and reorganise information and ideas in a different text type.

Outcome 3: journal entry **or** personal account **or** short story.

Unit 3 German

In Units 3 and 4, you will study themes and topics, grammar, text types, vocabulary and writing styles. These are common to all four units of the study, and are drawn upon as appropriate to your linguistic needs, and the outcomes for the unit. Themes and topics form the subject of the activities and tasks through which you will develop your skills. Common themes have been selected to provide the opportunity for you to build upon what is familiar, as well as develop knowledge. In addition, you will complete a *Detailed Study* which should enable you to explore and compare aspects of the language and culture of the German-speaking community through a range of oral and written texts in German related to a selected sub-topic.

Areas of Study

1. VCE Topics: School and Future plans, World of Work and Technology, Festivals, Racism, Germany Past and Present
2. Text Types & Writing Styles
3. Language & Culture through Texts
4. Vocabulary & Grammar

Outcomes:

On completion of this unit you should be able to:

Outcome 1: express ideas through the production of original texts.

Outcome 2: analyse and use information from spoken texts.

Outcome 3: exchange information, opinions and experiences.

Contribution to assessment: 25%

Unit 4 German

Areas of Study

1. VCE Topics: Detailed Study Topic “Die Weisse Rose”, General Revision of all Topics & Sub-Topics
2. Text Types & Writing Styles
3. Language & Culture through Texts
4. Vocabulary & Grammar

Outcomes

On completion of this unit you should be able to:

Outcome 1: analyse and use information from written texts.

Outcome 2: respond critically to spoken and written texts which reflect aspects of the language and culture of German-speaking communities

Contribution to assessment: 25%

Assessment

Assessment tasks for German may be chosen from the list suggested in the VCAA German Study Design 2010-2016 (see Units 3 & 4)

Unit 3

Outcome 1: A 250-word personal or imaginative written piece.

Outcome 2: A response to spoken text/s extracting and using information as requested.

Outcome 3: A three- to four-minute role-play, focusing on the resolution of an issue.

Unit 4

Outcome 1: A response to specific questions, messages or instructions, extracting and using information requested.

Outcome 2: A 250–300-word informative, persuasive or evaluative written response [e.g. report, comparison or review] and a 3-4 minute interview on an issue related to the texts studied.

End of year exam

- *Oral Component - Contribution to assessment: 12.5%*
- *Written Component 37.5%*

GENERAL MATHEMATICS

Unit 1 and 2 General Mathematics

General Mathematics focuses on the application of mathematics in real life. It is suitable for students who have studied General Mathematics or Mathematical Methods in Year 10. It leads to studying Unit 3 and 4 Further Mathematics in Year 12. The areas of study are listed below along with the topics we will cover in each one.

Areas of Study

Algebra and Structure

- Linear relations and equations

Arithmetic and Number

- Computation and practical arithmetic
- Financial arithmetic

Discrete mathematics

- Matrices
- Graphs and networks
- Number patterns and recursion

Graphs of linear and non-linear relations

- Linear graphs and models

Statistics

- Investigating and comparing data distributions
- Investigating relationships between two numerical variables

Outcomes

By the end of each unit you should be able to:

Outcome 1: Define and explain key concepts as specified in the selected content from the areas of study, and apply a range of related mathematical routines and procedures.

Outcome 2: Select and apply mathematical facts, concepts, models and techniques from the topics covered in the unit to investigate and analyse extended application problems in a range of contexts.

Outcome 3: Select and use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches.

A graphics calculator (e.g. Casio Classpad) is necessary to be able to satisfy Outcome 3.

FURTHER MATHEMATICS

Unit 3 Further Mathematics

In Unit 3 you will be required to investigate data distributions using single and bivariate sets. You will look for a relationship between two numeric variables and investigate fitting a model to your linear associations. You will also study a specific type of modelling called time series. During the Recursion and financial modelling you will investigate how assets depreciate, how compound interest investments and loans work. Finally you will investigate how compound interest changes over different time periods

Areas of Study

UNIT 3 - CORE

1. Data analysis
2. Recursion and financial modelling

Outcomes

By the end of these units you should be able to:

Outcome 1: Define and explain key concepts as specified in the content from the areas of study and use this knowledge to apply related mathematical techniques and models as specified.

Outcome 2: Select and apply the mathematical concepts, models and techniques as specified in Area of Study in a range of contexts of increasing complexity

Outcome 3: Select and appropriately use numerical, graphical, symbolic and statistical functionalities of technology to develop mathematical ideas, produce results and carry out analysis in situations requiring problem-solving, modelling or investigative techniques or approaches

Contribution to assessment: Data = 13% Recursion and Financial Modelling: 7%

Unit 4 Further Mathematics

In Unit 4 you will be required to study the topics of Matrices and Networks. The Matrices module covers definition of matrices, different types of matrices, matrix operations, transition matrices and the use of first-order linear matrix recurrence relations to model a range of situations and solve related problems. The Networks module covers definition and representation of different kinds of undirected and directed graphs, eulerian trails, eulerian circuits, bridges, hamiltonian paths and cycles, and the use of networks to model and solve problems involving travel, connection, flow, matching, allocation and scheduling.

Areas of Study

UNIT 4 – Applications in:

1. Matrices
2. Networks and decision mathematics

Outcomes

See Unit 3

Contribution to assessment: Matrices: 7% Networks: 7%

End of year exam – Contribution to assessment: Multiple Choice 33% Short Answer 33%

Assessment

Assessment tasks for Further Maths will be chosen from the list suggested in the VCAA Further Maths Study Design 2016-2018

MATHEMATICAL METHODS (CAS)

Mathematical Methods is a rigorous application of mathematics which requires a strong foundation in algebra. It is suitable for students who are aiming for tertiary courses in Engineering, Science, Economics or Medicine. Students should have passed Year 10 Mathematical Methods at a reasonable level.

Unit 1 Mathematical Methods Unit 1

In Unit 1 you will be required to study the graphical representation of functions of a single real variable and the study of key features of graphs of functions such as axis intercepts, domain (including maximal domain) and range of a function, asymptotic behaviour and symmetry. Students should be familiar with relevant mental and by hand approaches in simple cases. In Unit 1 the focus is on the algebra of polynomial functions to degree 4.

Areas of Study

1. Functions and Graphs
2. Algebra

Outcomes:

By the end of this unit you should be able to:

Outcome 1: Define and explain key concepts, in relation to the areas of study, and apply a range of related mathematical routines and procedures. This outcome is assessed in written tests and an application task.

Outcome 2: Apply mathematical processes in non-routine contexts and analyse and discuss these problems of mathematics. This outcome is assessed in an application task.

Outcome 3: Use technology to produce results and carry out analysis in situations requiring problem solving, modelling or investigative techniques. This outcome is assessed through written tests and an application task.

Unit 2 Mathematical Methods Unit 2

In Unit 2 you will be required to study covers constant and average rates of change and an informal treatment of instantaneous rate of change of a function in familiar contexts, including graphical and numerical approaches to the measurement of constant, average and instantaneous rates of change. This unit also includes introductory probability theory, including the concept of events, probability and representation of event spaces using various forms such as lists, grids, venn diagrams, karnaugh maps, tables and tree diagrams.

Areas of Study

1. Calculus
2. Probability

Outcomes

By the end of this unit you should be able to:

Outcome 1: Define and explain key concepts, in relation to the areas of study, and apply a range of related mathematical routines and procedures. This outcome is assessed in written tests and an application task.

Outcome 2: Application of mathematical processes in non-routine contexts and analyse and discuss these problems of mathematics. This outcome is assessed in an application task.

Outcome 3: Use technology to produce results and carry out analysis in situations requiring problem solving, modelling or investigative techniques. This outcome is assessed through written tests and an application task.

Unit 3 Mathematical Methods Unit 3

In Unit 3 you will be required to study the behaviour of functions, including key features such as axis intercepts, stationary points, points of inflection, domain and range, asymptotic behaviour and symmetry. You will also study the algebra of functions including the composition of functions, inverse functions, the solution of equations and simultaneous equations using appropriate processes.

Areas of Study

1. Functions and Graphs
2. Algebra

Outcomes

Outcomes in this unit are assessed on 3 separate occasions, 2 written tests and an application task.

By the end of this unit you should be able to:

Outcome 1: Define and explain key concepts, in relation to the areas of study, and apply a range of related mathematical routines and procedures.

Outcome 2: Apply mathematical processes in non-routine contexts and analyse and discuss these problems of mathematics.

Outcome 3: Use technology to produce results and carry out analysis in situations requiring problem solving, modelling or investigative techniques.

Assessment

Unit 3 will be assessed by an application task that will spread over 4-5 lessons. It will contribute 17% of the study score.

Unit 4 Mathematical Methods Unit 4

In unit 4 you will be required to study the graphical treatment of limits, continuity and differentiability of functions alongside the anti-differentiation and integration of functions. You will also study discrete and continuous random variables, probability functions and the calculation and interpretation of central measures and measures of spread.

Areas of Study

1. Calculus
2. Probability

Outcomes

Outcomes in this unit are assessed in 2 separate analysis tasks.

By the end of this unit you should be able to:

Outcome 1: Define and explain key concepts, in relation to the areas of study, and apply a range of related mathematical routines and procedures.

Outcome 2: Apply mathematical processes in non-routine contexts and analyse and discuss these problems of mathematics.

Outcome 3: Use technology to produce results and carry out analysis in situations requiring problem solving, modelling or investigative techniques.

Assessment

Unit 4 will be assessed in two modelling or problem solving tasks. Each will spread over 2-3 lessons. It will contribute 17% towards your study score.

End of year exam – Contribution to assessment: 66%

MEDIA

Unit 1 Representation and technologies of representation

In this unit students develop an understanding of the relationship between the media, technology and the representations present in media forms. They study the relationships between media technologies, audiences and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, the role audiences play in constructing meaning from media representations, and the creative and cultural impact of new media technologies.

Areas of Study

1. Representation
2. Technologies of representation
3. New media

Outcomes:

On completion of this unit you should be able to:

Outcome 1: describe the construction of specific media representations and explain how the process of representation reproduces the world differently from direct experience of it.

Outcome 2: produce and compare media representations in two or more media forms and compare the representations produced by the application of different media technologies.

Outcome 3: discuss the creative and cultural implications of new media technologies for the production and consumption of media products.

Unit 2 Media production and the media industry

In this unit students develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students participate in specific stages of a media production, developing practical skills in their designated role. Students also develop an understanding of media industry issues and developments relating to production stages and roles and the broader framework within which Australian media organisations operate.

Areas of Study

1. Media production
2. Media industry production
3. Australian media organisations

Outcomes

On completion of this unit you should be able to:

Outcome 1: Demonstrate specialist production skills within collaborative media productions, and explain and reflect on the media production process.

Outcome 2: Discuss media industry issues and developments relating to the production stages of a media product, and describe specialist roles within the media industry.

Outcome 3: Describe characteristics of Australian media organizations and discuss the social, cultural and industrial framework within which such organizations operate.

Assessment

Assessment tasks for Media may be chosen from the following list

- Analysis of media representations
- Creating representations in media forms
- Research into emerging technologies
- essay;
- planning for the production of a media product
- media production; team project
- Individual representations and products
- research into media Industry issues
- Analysis of media organisations and frameworks/regulations.

Unit 3 Narrative and media production design

In this unit students develop an understanding of film, television or radio drama production and story elements, and learn to recognise the role and significance of narrative organisation in fictional film, television or radio drama texts. Students examine how production and story elements work together to structure meaning in narratives to engage audiences. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They complete a media production design plan for a specific media form and audience. They present the relevant specifications as a written planning document, with visual representations that employ media planning conventions appropriate to the media form in which the student chooses to work.

Areas of Study

1. Narrative
2. Media production skills
3. Media production design

Outcomes

By the end of this unit you should be able to:

Outcome 1: Analyse the nature and function of production and story elements in narrative media texts, and discuss the impact of these elements on audience engagement.

Outcome 2: Use a range of technical equipment, applications and media processes and evaluate the capacity of these to present ideas, achieve effects and explore aesthetic qualities in media forms.

Outcome 3: Prepare and document a media production design plan in a selected media form for a specified audience.

Contribution to assessment: 25%

Unit 4 Media: process, influence and society's values

In this unit students further develop practical skills in the production of media products to realise the production design plan completed during Unit 3. Organisational and creative skills are refined and applied throughout each stage of the production process. Students analyse the relationship between media texts, social values and discourses in the media. The nature and extent of media influence, the relationship between the media, media audiences and media regulation are also critically analysed in this unit.

Areas of Study

Media process

Media texts and society's values

Outcomes

By the end of this unit you should be able to:

Outcome 1: Produce a media product for an identified audience from the media production design plan prepared in Unit 3.

Outcome 2: Discuss and analyse the construction, distribution and interpretation of society's values as represented in media texts.

Contribution to assessment: 25%

End of year exam – Contribution to assessment: 50%

Assessment

Assessment tasks for Media may be chosen from the list suggested in the VCAA Media Study Design 2010-2016 (see Units 1& 2)

Materials Cost per student:

\$100

MUSIC PERFORMANCE

At least THREE - FOUR years experience in learning an instrument is recommended by the VCAA before commencing VCE Music Performance Unit 1 or 2.
It is a College requirement that all students undertaking VCE Music Performance Unit 1 or 2 have weekly instrumental lessons.

Unit 1

This unit focuses on building your performance and musicianship skills to present performances of selected group and solo works using one or more instruments. You study the work of other performers, explore strategies to optimise your own performance, identify technical, expressive and stylistic challenges in your works and practise technical work to address these challenges. You also develop your aural, theoretical and analytical musicianship skills.

Areas of Study

1. Performance
2. Preparing for Performance
3. Music Language

Outcomes

By the end of this unit you should be able to:

Outcome 1: Prepare and perform a practised program of group and solo works

Outcome 2: Demonstrate and discuss techniques relevant to the performance of selected works

Outcome 3: Identify, re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted

Assessment Tasks – From the following:

*Performance of two group works and two solo works

*Demonstration of instrumental technique exercises and an explanation of how selected exercises support development as an instrumentalist/vocalist

*Workbook of aural, theory and analysis tasks and end of Unit exam

Unit 2

This unit focuses on continuing to build your performance and musicianship skills to present performances of selected group and solo works using one or more instruments. You study the work of other performers, explore strategies to optimise your own performance, identify technical, expressive and stylistic challenges in your works and practise technical work to address these challenges. You also develop your aural, theoretical and analytical musicianship skills.

Areas of Study

1. Performance
2. Preparing for Performance
3. Music Language
4. Organisation of sound

Outcomes

By the end of this unit you should be able to:

Outcome 1: Prepare and perform a practised program of group and solo works

Outcome 2: Demonstrate and discuss techniques relevant to the performance of selected works

Outcome 3: Re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted

Outcome 4: Devise a composition or improvisation that uses music language evident in work/s being prepared for performance

Assessment Tasks – From the following:

- *Performance of two group works and two solo works (different to Unit 1)
- *Demonstration of instrumental technique exercises and an explanation of how selected exercises support development as an instrumentalist/vocalist
- *Workbook of aural, theory and analysis tasks and end of Unit exam
- *Compose an original work OR improvise using given source material, digitally document processes and document use of music language

MUSIC PERFORMANCE

Unit 3

This unit focuses on building and refining performance and musicianship skills. Students focus on either group or solo performance and begin preparation of a performance program they will present in the end-of-year examination. As part of their preparation, students will also present performances of both group and solo music works using one or more instruments and take opportunities to perform in familiar and unfamiliar venues and spaces. They study the work of other performers and refine selected strategies to optimise their own approach to performance. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and endeavour to address these challenges. Students develop their listening, aural, theoretical and analytical musicianship skills and apply this knowledge when preparing and presenting performances.

Areas of Study

1. Performance
2. Preparing for Performance
3. Music Language

Outcomes

By the end of this unit you should be able to:

Outcome 1: Prepare and perform a program of group and solo works, and demonstrate a diverse range of techniques and expressive qualities and an understanding of a wide range of music styles and performance conventions

Outcome 2: Demonstrate and discuss techniques relevant to performance of selected works

Outcome 3: Identify, re-create, notate and transcribe short excerpts of music, and discuss the interpretation of expressive elements of music in pre-recorded works

Assessment Tasks

1. Performance Recital
2. Demonstration of material selected to assist with development of general instrumental technique and preparation of works, and discussion of how the selected material is supporting the student's development as an instrumentalist (SAC)
3. Workbook of aural, theory and analysis tasks and end of Unit test (SAC)

Unit 4

In this unit, you will focus on either group or solo performance and continue preparation of a performance program they will present in the end-of-year examination. All students present performances of both group and solo music works using one or more instruments and take opportunities to perform in familiar and unfamiliar venues and spaces. Through analyses of other performers' interpretations and feedback on their own performances, students refine their interpretations and optimise their approach to performance. They continue to address challenges relevant to works they are preparing for performance and to strengthen their listening, aural, theoretical and analytical musicianship skills.

Areas of Study

1. Performance
2. Preparing for Performance
3. Music Language

Outcomes

By the end of this unit you should be able to:

Outcome 1: Prepare and perform informed interpretations in a program of group and solo works, and demonstrate a diverse range of techniques, expressive qualities and understanding of a wide range of music styles and performance conventions

Outcome 2: Demonstrate and discuss techniques relevant to refining the performance of selected works

Outcome 3: Identify, re-create, notate and transcribe short excerpts of music, and discuss the interpretation of expressive elements of music in pre-recorded works

Assessment Tasks

1. Performance Recital
2. Demonstration of material selected to assist with development of general instrumental technique and preparation and presentation of works, and discussion of how the selected material is supporting the student's development as an instrumentalist (SAC)
3. Workbook of aural, theory and analysis tasks and end of Unit test

MUSIC INVESTIGATION

At least FOUR - FIVE years experience in learning an instrument is recommended by the VCAA before commencing VCE Music Investigation Unit 3.
It is a College requirement that all students undertaking VCE Music Investigation have weekly instrumental lessons.

Unit 3

In this Unit, students research performance practices relevant to a music style, tradition or genre. The music style, tradition or genre selected for study may be representative of music practice in a specific time, place or culture, and/or the work of a particular performer or composer. Students design an Investigation Topic as the basis for study of performance techniques and conventions, interpretative possibilities and contextual issues. Through this study they develop listening, aural, theoretical, interpretative and technical musicianship skills and demonstrate findings through performance of established repertoire, music they have composed, improvised or arranged, and commentary about issues that have informed their interpretation of a representative program of works.

Areas of Study

1. Investigation
2. Composition/improvisation/arrangement
3. Performance

Outcomes

By the end of this unit you should be able to:

Outcome 1: Demonstrate understanding of practices and issues that inform performance of works that are representative of a selected music style, tradition and/or genre relevant to the Investigation Topic

Outcome 2: Compose, improvise and/or arrange original music exercises and document and discuss music characteristics and performance practices relevant to the Investigation Topic

Outcome 3: Present a performance of music works and communicate knowledge and understanding of a specific music style, tradition and/or genre relevant to the Investigation Topic

Assessment Tasks (SAC)

A report that includes written, audio and visual components. The report will be based on research undertaken for Outcome 1 and be presented in a multimedia format.

AND

A presentation that includes:

- performance of exercises created by the student for Outcome 2
- demonstration of material from a technical work program developed for Outcome 3, and
- commentary that describes relevance to the Investigation Topic of the exercises created for Outcome 2 and the material from the Outcome 3 technical program.

AND

Responses to questions about material presented in the report and the presentation.

Unit 4

In this unit, further research to reflect on and evaluate their interpretative approaches to the music works they are preparing to perform. This research extends students' understanding of the possibilities for performance of their program. They consider how to balance their realisation of technical and expressive features with choices they have made in relation to personal, stylistic, practical, technological, historical and cultural influences. They prepare a Performer's Statement that explains their interpretative approach to the works and demonstrates their understanding of performance practices relevant to the music style, tradition and/or genre of works in the performance program they are preparing. This statement will be provided to assessors at the end-of-year performance examination.

Areas of Study

1. Investigation
2. Composition/improvisation/arrangement
3. Performance

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain and justify their interpretative approach to performance of a program of works

Outcome 2: Compose/improvise/arrange an original music work and perform a music work and explain how it is characteristic of a music style, tradition and/or genre relevant to the Investigation Topic

Outcome 3: Demonstrate artistic intent and understanding in a cohesive and engaging performance of music works

Assessment Tasks

1. Identify, describe and justify decisions about the application of performance practices and conventions to realise musical characteristics of selected works and achieve artistic intentions, AND prepare a written Performer's Statement that introduces their performance program to an audience
2. Create, notate/record and perform an original composition, improvisation or arrangement that demonstrates understanding of the characteristic use of elements of music, compositional devices and performance practices, AND explain how the work is characteristic of a style, tradition and/or genre relevant to the Investigation Topic (SAC)
3. Performance of a cohesive and representative performance program that communicates understanding of a music style, tradition and/or genre to an audience

PHYSICAL EDUCATION

Unit 1 Physical Education

In this unit students explore how the musculoskeletal and cardiorespiratory systems work together to produce movement. Through practical activities students explore the relationships between the body systems and physical activity, sport and exercise, and how the systems adapt and adjust to the demands of the activity. Students investigate the role and function of the main structures in each system and how they respond to physical activity, sport and exercise. They explore how the capacity and functioning of each system acts as an enabler or barrier to movement and participation in physical activity. Using a contemporary approach, students evaluate the social, cultural and environmental influences on movement. They consider the implications of the use of legal and illegal practices to improve the performance of the musculoskeletal and cardiorespiratory systems, evaluating perceived benefits and describing potential harms. They also recommend and implement strategies to minimise the risk of illness or injury to each system.

Areas of Study

1. How does the musculoskeletal system work to produce movement?
2. How does the cardiovascular system function at rest and during exercise?

Outcomes:

On completion of this unit you should be able to:

Outcome 1: To collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions and its limiting conditions, and evaluate the ethical and performance implications of the use of practices and substances that enhance human movement.

Outcome 2: To collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function and the limiting conditions of each system, and discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems.

Unit 2 Physical Education

This unit develops students' understanding of physical activity, sport and society from a participatory perspective. Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups.

Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity.

They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied. Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. 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.

Areas of Study

1. What are the relationships between physical activity, sport, health and society?
2. What are the contemporary issues associated with physical activity and sport?

Outcomes :

On completion of this unit you should be able to:

Outcome 1: collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan that meets the physical activity and sedentary behaviour guidelines for an individual or a specific group.

Outcome 2: Apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with participation in physical activity and/or sport in a local, national or global setting.

Assessment

Assessment tasks for Physical Education may be chosen from the following list suggested in the VCAA Physical Education Study Design:

- a practical laboratory report linking key knowledge and key skills to practical activity
- a case study analysis
- a data analysis
- a critically reflective folio/diary of participation in practical activities
- a visual presentation such as graphic organiser, concept/mind map, annotated poster, presentation file
- a multimedia presentation, including two or more data types (for example, text, still and moving images, sound) and involving some form of interaction
- a physical simulation or model
- an oral presentation such as podcast, debate
- a written report
- a test.

Unit 3: Physical Activity Participation and Physiological Performance

This unit introduces students to an understanding of physical activity and sedentary behaviour from a participatory and physiological perspective. Students apply various methods to assess physical activity and sedentary levels, and analyse the data in relation to adherence to the National Physical Activity Guidelines. Students study and apply the social-ecological model to identify a range of Australian strategies that are effective in promoting participation in some form of regular activity.

Students investigate the contribution of energy systems to performance in physical activity. In particular, they investigate the characteristics of each system and the interplay of the systems during physical activity. Students explore the multi-factorial causes of fatigue and consider different strategies used to delay and manage fatigue and to promote recovery.

Areas of Study

1. Monitoring and promotion of physical activity
2. Physiological responses to physical activity

Outcomes

By the end of this unit you should be able to:

Outcome 1: Analyse individual and population levels of sedentary behaviour and participation in physical activity, and evaluate initiatives and strategies that promote adherence to the National Physical Activity Guidelines.

Outcome 2: Use data collected in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain the fatigue mechanisms and recovery strategies.

Contribution to assessment: 25%

Unit 4: Enhancing Performance

Areas of Study

1. Planning, implementing and evaluating a training program
2. Performance enhancement and recovery practices

Outcomes

By the end of this unit you should be able to:

Outcome 1: Plan, implement and evaluate training programs to enhance specific fitness components.

Outcome 2: Analyse and evaluate strategies designed to enhance performance or promote recovery.

Contribution to assessment: 25%

End of year exam – Contribution to assessment: 50%

Assessment

Assessment tasks for Units 3 & 4 may be chosen from the list suggested in the VCAA Physical Education Study Design 2011-2016

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

Areas of Study

1. How can thermal effects be explained?
2. How do electric circuits work?
3. What is matter and how is it formed?

Outcomes:

On completion of this unit you should be able to:

Outcome 1: *apply thermodynamic principles to analyse, interpret and explain changes in thermal energy in selected contexts, and describe the environmental impact of human activities with reference to thermal effects and climate science concepts.*

Outcome 2: *investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community.*

Outcome 3: *explain the origins of atoms, the nature of subatomic particles and how energy can be produced by atoms.*

Contribution to Final Assessment: 20%

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.

Students design and undertake investigations involving at least one independent, continuous variable.

Areas of Study

1. How can Motion be described and explained?
2. Option selected from one of the following choices:
 - What are stars?
 - Is there life beyond Earth's Solar System?
 - How do forces act on the Human body?
 - How can AC electricity charge a DC device?
 - How do heavy things fly?
 - How do fusion and fission compare as viable nuclear energy power sources?

- How is radiation used to maintain human health?
- How do particle accelerators work?
- How can human vision be enhanced?
- How do instruments make music?
- How can performance in ball sports be improved?
- How does the human body use electricity?

3. Practical Investigation

Outcomes

On completion of this unit you should be able to:

Outcome 1: *Investigate, analyse and mathematically model the motion of particles and bodies*

Outcome 2: *Varies, dependent on option selected.*

Outcome 3: *design and undertake an investigation of a physics question related to the scientific inquiry processes of data collection and analysis, and draw conclusions based on evidence from collected data.*

Contribution to Final Assessment: 30%

End of year exam – Contribution to assessment: 50%

Assessment

Assessment tasks for Physics may be chosen from the following list suggested in the VCAA Physics Study Design for 2016:

- A report of a practical investigation (student-designed or adapted) with results reported in a poster format

And selections from:

- | | |
|--|--|
| <ul style="list-style-type: none"> • an annotated folio of practical activities data analysis • design, building, testing and evaluation of a device • an explanation of the operation of a device • a proposed solution to a scientific or technological problem • a report of a selected physics phenomenon | <ul style="list-style-type: none"> • a modelling activity • a media response • a summary report of selected practical investigations • a reflective learning journal/blog related to selected activities or in response to an issue • a test comprising multiple choice and/or short answer and/or extended response. |
|--|--|

Unit 3 Physics : 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.

A student-designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Units 3 and 4, and is assessed in Unit 4, Outcome 3. The findings of the investigation are presented in a scientific poster format

Areas of Study

1. How do things move without contact?
2. How are fields used to move electrical energy?
3. How fast can things go?

Outcomes

By the end of this unit you should be able to:

Outcome 1: *analyse gravitational, electric and magnetic fields, and use these to explain the operation of motors and particle accelerators and the orbits of satellites.*

Outcome 2: *analyse and evaluate an electricity generation and distribution system.*

Outcome 3: *investigate motion and related energy transformations experimentally, analyse motion using Newton's laws of motion in one and two dimensions, and explain the motion of objects moving at very large speeds using Einstein's theory of special relativity.*

Contribution to Final Assessment: 21%

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.

A student-designed practical investigation related to waves, fields or motion is undertaken either in Unit 3 or Unit 4, or across both Unit 3 and Unit 4, and is assessed in Unit 4, Outcome 3. The findings of the investigation are presented in a scientific poster format

Areas of Study

1. How can waves explain the behavior of light?
2. How are light and matter similar?
3. Practical Investigation

Outcomes

By the end of this unit you should be able to:

Outcome 1: *apply wave concepts to analyse, interpret and explain the behaviour of light.*

Outcome 2: *provide evidence for the nature of light and matter, and analyse the data from experiments that supports this evidence.*

Outcome 3: *design and undertake a practical investigation related to waves or fields or motion, and present methodologies, findings and conclusions in a scientific poster.*

Contribution to Final Assessment: 19%

End of year exam – Contribution to assessment: 60%

Assessment

Assessment tasks for Physics may be chosen from the list suggested in the VCAA Physics Study Design 2013-2016.

PRODUCT DESIGN AND TECHNOLOGY - WOOD

Unit 1 Product Re-Design and sustainability

This unit focuses on the analysis, modification and improvement of a product design with consideration of the materials used and issues of sustainability. Concerns with dwindling resources and increases in waste require sustainable product design thinking. Many products in use today have been redesigned to suit the changing needs and demands of users but with little consideration of their sustainability. Knowledge of material use and suitability for particular products is essential in product design. Additionally, knowledge of the source, origin and processing of materials is central to sustainable practices. Students consider the use of materials from a sustainable viewpoint. Sustainable practices claimed to be used by designers are examined.

Areas of Study

1. Product re-design for improvement
2. Producing and evaluating a redesigned product

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Develop a structured approach towards the Product design process and Product design factors

Outcome 2: Produce a re-designed product safely using tools, equipment, machines and materials, compare it with the original design and evaluate it against the needs and requirements outlined in the design brief.

Unit 2 Collaborative Design

In this unit students work in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product. They focus on factors including: human needs and wants; function, purpose and context for product design; aesthetics; materials and sustainability; and the impact of these factors on a design solution. Teamwork encourages communication between students and mirrors professional design practice where designers often work within a multi-disciplinary team to develop solutions to design problems. Students also examine the use of ICT to facilitate teams that work collaboratively but are spread across the globe. In this unit students are able to gain inspiration from an historical and/or a cultural design movement or style and its defining factors such as ideological or technological change, philosophy or aesthetics.

Areas of Study

1. Designing within a team
2. Producing and evaluating a collaboratively designed product

Outcomes

On completion of this unit you should be able to:

Outcome 1: Work both individually and as a member of a design team to address a problem, need or opportunity and consider the associated human-centred design factors

Outcome 2: Design a product within a range, based on a theme, or a component of a group product

Outcome 3: Research and refer to a chosen style or movement

Outcome 4: Present an evaluation report.

Assessment

Assessment tasks for Product Design and Technology may be chosen from the following list suggested in the VCAA Product Design and Technology Study Design.

- Design brief, design development and research reports
- Design Folio and Production work.
- Evaluation report
- Production of a product range through collaborative design
- Evaluation report of the design, planning and production activities

Materials Cost Per Student:

\$150

Unit 3 Applying the Product design process

In this unit students are engaged in the design and development of a product that meets the needs and expectations of a client and/or an end-user, developed through a design process and influenced by a range of complex factors. These factors include the purpose, function and context of the product; human-centred design factors; innovation and creativity; visual, tactile and aesthetic factors; sustainability concerns; economic limitations; legal responsibilities; material characteristics and properties; and technology. Design and product development and manufacture occur in a range of settings. An industrial setting provides a marked contrast to that of a 'one-off situation' in a small 'cottage' industry or a school setting. Although a product design process may differ in complexity, it is central to all of these situations regardless of the scale or context. This unit examines different settings and takes students through the Product design process as they design for others.

Areas of Study

1. Designing for others
2. Product Manufacture
3. Product Evaluation

Outcomes:

By the end of this unit you should be able to:

Outcome 1: Explain the roles of the designer, client and and/or end-user/s, the Product design process and its initial stages, including investigating and defining a design problem, and explain how the design process leads to product design development.

Outcome 3: Explain and analyse influences on the design, development and manufacture of products within industrial settings.

Outcome 3: Present a folio that documents the Product design process used while working as a designer to meet the needs of a client and/or end-user, and commence production of the designed product.

Unit 4 Product development and evaluation

In this unit students learn that evaluations are made at various points of product design, development and production. In the role of designer, students judge the suitability and viability of design ideas and options referring to the design brief and evaluation criteria in collaboration with a client and/or an end-user. Comparisons between similar products help to judge the success of a product in relation to a range of Product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the Product design factors.

Areas of Study

1. Product Manufacture
2. Product Evaluation

Outcomes

By the end of this unit you should be able to:

Outcome 1: Compare, analyse and evaluate similar commercial products, taking into account a range of factors and using appropriate techniques.

Outcome 2: Safely apply a range of production skills and processes to make the product designed in Unit 3, and manage time and resources effectively and efficiently.

Outcome 3: Evaluate the outcomes of the design, planning and production activities, explain the product's design features to the client and/or an end-user and outline its care requirements.

Assessment:

- School-assessed Coursework (Units 3 and 4) 20 percent
- School-assessed Task (Units 3 and 4) 50 percent
- End of year exam – Contribution to assessment: 30 percent

Materials Cost per Student:

\$150

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.

A student-directed research investigation related to brain function and/or development is undertaken in this unit. The research investigation draws on content from Area of Study 1 and/or Area of Study 2.

Areas of Study

1. How does the brain function?
2. What influences psychological development?
3. Student-directed research project

Outcomes

On completion of this unit the student should be able to:

Outcome 1: Describe how understanding of brain structure and function has changed over time, explain how different areas of the brain coordinate different functions, and explain how brain plasticity and brain damage can change psychological functioning.

Outcome 2: Identify the varying influences of nature and nurture on a person's psychological development, and explain different factors that may lead to typical or atypical psychological development.

Outcome 3: Investigate and communicate a substantiated response to a question related to brain function and/or development, including reference to at least two contemporary psychological studies and/or research techniques.

Assessment Tasks: (to be selected from)

- research investigation (mandatory task)
- annotated folio of practical activities
- media response
- oral presentation using two or more data types, e.g. still or moving images, written text, sound
- visual presentation, for example concept map, graphic organiser, poster
- test
- essay
- debate
- data analysis
- evaluation of research

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.

Areas of Study

1. What influences a person's perception of the world?
2. How are people influenced to behave in particular ways?
3. Student-directed practical investigation

Outcomes

By the end of this unit students should be able to:

Outcome 1: Compare the sensations and perceptions of vision and taste, and analyse factors that may lead to the occurrence of perceptual distortions. Outcome 2: Identify factors that influence individuals to behave in specific ways, and analyse ways in which others can influence individuals to behave differently. Outcome 3: Design and undertake a practical investigation related to external influences on behaviour, and draw conclusions based on evidence from collected data.

Assessment Tasks: (to be selected from the same list as for Unit 1)

Unit 3 – How does experience affect behavior and mental processes?

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.

Areas of Study

1. How does the nervous system enable psychological functioning?
2. How do people learn and remember?

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain how the structure and function of the human nervous system enables a person to interact with the external world and analyse the different ways in which stress can affect nervous system functioning.

Outcome 2: Apply biological and psychological explanations for how new information can be learnt and stored in memory, and provide biological, psychological and social explanations of a person's inability to remember information.

Assessment Tasks

Outcome 1 and 2 - At least one task selected from:

- annotations of at least two practical activities from a practical logbook
- evaluation of research
- a report of a student investigation
- an analysis of data including generalisations and conclusions
- a visual presentation
- media analysis/response
- a response to a set of structured questions
- a reflective blog/learning journal related to selected activities or in response to an issue
- a test

Unit 4 – How is wellbeing developed and maintained?

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.

Areas of Study

- 1. How do levels of consciousness affect mental processes and behaviour?**
- 2. What influences mental wellbeing?**
- 3. Practical investigation**

Outcomes

By the end of this unit you should be able to:

Outcome 1: Explain consciousness as a continuum, compare theories about the purpose and nature of sleep, and elaborate on the effects of sleep disruption on a person's functioning.

Outcome 2: Explain the concepts of mental health and mental illness including influences of risk and protective factors, apply a biopsychosocial approach to explain the development and management of specific phobia, and explain the psychological basis of strategies that contribute to mental wellbeing.

Outcome 3: Design and undertake a practical investigation related to mental processes and psychological functioning, and present methodologies, findings and conclusions in a scientific poster.

Assessment Tasks

Outcome 1 and 2 - At least one task selected from:

- annotations of at least two practical activities from a practical logbook
- evaluation of research
- a report of a student investigation
- an analysis of data including generalisations and conclusions
- a visual presentation
- media analysis/response
- a response to a set of structured questions
- a reflective blog/learning journal related to selected activities or in response to an issue
- a test

Outcome 3 - A structured scientific poster according to the VCAA template

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.

Areas of Study

1. Researching and recording ideas
2. Studio Practice
3. Interpreting art ideas and use of materials and techniques

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Identify sources of inspiration and artistic influences and outline individual ideas, art forms and aesthetic qualities, and translate these into visual language

Outcome 2: Produce at least one finished artwork and progressively record the development of their studio practice, conveying individual ideas through the exploration of materials and techniques in the selected art form/s.

Outcome 3: Discuss the artistic practice of artists from different times and cultures, their sources of inspiration, materials and techniques for at least two artworks by each artist.

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.

Areas of Study

1. Exploration of studio practice and development of artworks
2. Ideas and styles in artworks

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Develop an individual exploration proposal to form the basis of a studio process, and from this produce and document a variety of potential directions in a visual diary for at least one artwork.

Outcome 2: Compare a range of historical and contemporary art periods, styles or movements, and analyse the ways in which artists communicate ideas, develop styles and demonstrate aesthetic qualities in artworks.

Materials Cost:

\$125

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.

Areas of study

1. Exploration proposal
2. Studio process
3. Artists and studio practices

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Prepare an exploration proposal that formulates the content and parameters of an individual studio process including a plan of how the proposal will be undertaken.

Outcome 2: Progressively present an individual studio process recorded in written and visual form that produces a range of potential directions, and reflects the concepts and ideas documented in the exploration proposal and work plan.

Outcome 3: Examine the practice of at least two artists, with reference to two artworks by each artist, referencing the different historical and cultural context of each artwork.

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. The development of these artworks should reflect refinement and skilful application of materials and techniques, and the resolution of ideas and aesthetic qualities discussed in the exploration proposal in Unit 3.

Areas of study

1. Production and presentation of artworks
2. Evaluation
3. Art industry contexts

Outcomes:

On completion of this unit you should be able to:

Outcome 1: Present at least two finished artworks based on selected and evaluated potential directions developed through the studio process, which demonstrate refinement and application of materials and techniques, and that realise and communicate the student's ideas expressed in the exploration proposal.

Outcome 2: Provide visual and written documentation that identifies and evaluates the extent to which the artworks reflect the selected potential directions, and effectively demonstrates a cohesive relationship between the works.

Outcome 3: Compare the methods used by artists and considerations of curators in the preparation, presentation, conservation and promotion of specific artworks in at least two different exhibitions.

Materials Cost:

\$125

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 make messages, ideas and concepts 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 through exploration of the relationship between design elements and design principles, students develop an understanding of how design elements and principles affect the visual message and the way information and ideas are read and perceived.

Areas of Study

1. Drawing as a means of communication

2. Design elements and design principles
3. Visual communication design in context

Outcomes:

On completion of this unit you should be able to:

Outcome 1: create drawings for different purposes using a range of drawing methods, media and materials.

Outcome 2: select and apply design elements and design principles to create visual communications that satisfy stated purposes.

Outcome 3: describe how a visual communication has been influenced by past and contemporary practices, and by social and cultural factors.

Unit 2 Applications of visual communication design

This unit focuses on the application of visual communication design knowledge, design thinking skills 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 investigate how typography and imagery are used in visual communication 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. In response to a brief, students engage in the stages of research, generation of ideas and development of concepts to create visual communications.

Areas of Study

1. Technical drawing in context
2. Type and imagery
3. Applying the design process

Outcomes

At the end of this unit you should be able to:

Outcome 1: create presentation drawings that incorporate relevant technical drawing conventions and effectively communicate information and ideas for a selected design field.

Outcome 2: manipulate type and images to create visual communications suitable for print and screen-based presentations, taking into account copyright.

Outcome 3: engage in stages of the design process to create a visual communication appropriate to a given brief.

Assessment

Assessment tasks for Visual Communication & Design may be chosen from the following list suggested in the Study Design:

- folio of typography and image ideas and concepts created using manual and digital methods
- folio of technical drawings created using manual and/or digital methods
- written and/or oral descriptions and analysis of historical and contemporary design examples
- folio demonstrating the design process created using manual and/or digital methods
- final presentations of visual communications.

Materials Cost per Student:

\$100

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, 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 visual communication designers to support the development of their own work. They establish a brief and apply design thinking skills through the design process. They identify and describe a client, two distinctly different needs of that client, and the purpose, target audience, context and constraints relevant to each need. 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 investigation work underpin the developmental and refinement work undertaken in Unit 4.

Areas of Study

1. Analysis and practice in context
2. Design industry practice
3. Developing a brief and generating ideas

Outcomes

By the end of this unit you should be able to:

Outcome 1: create visual communications for specific contexts, purposes and audiences that are informed by their analysis of existing visual communications.

Outcome 2: describe how visual communications are designed and produced in the design industry and explain factors that influence these practices.

Outcome 3: apply design thinking skills in preparing a brief, undertaking research and generating a range of ideas relevant to the brief.

Unit 4 Design development and presentation

The focus of this unit is 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 needs. Having completed their brief and generated ideas in Unit 3, students continue the design process by developing and refining concepts for each 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 with their 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. Students refine and present two visual communications within the parameters of the brief. They reflect on the design process and the design decisions they took in the realisation of their ideas. They evaluate their visual communications and devise a pitch to communicate their design thinking and decision making to the client.

Areas of Study

1. Development of design concepts
2. Final presentations
3. Evaluation and explanation

Outcomes

By the end of this unit you should be able to:

Outcome 1: Develop distinctly different design concepts for each need, and select and refine for each need a concept that satisfies each of the requirements of the brief.

Outcome 2: Produce final visual communication presentations that satisfy the requirements of the brief.

Outcome 3: Devise a pitch to present and explain their visual communications to an audience and evaluate the visual communications against the brief.

Assessment

Assessment tasks for Visual Communication & Design may be chosen from the list suggested in the VCAA VCD Study Design 2013-2017 (see Units 1& 2)

Materials Cost per student:

\$100