

SUBJECTS OFFERED TO YEAR 11 STUDENTS IN 2019

Accounting

Unit 2: Accounting and decision-making for a trading business

In this unit, students develop their knowledge of the accounting process for sole proprietors operating a trading business, with a focus on inventory, accounts receivable, accounts payable and non-current assets. Students use manual processes and ICT, including spreadsheets, to prepare historical and budgeted accounting reports. Students develop and suggest to the business owner strategies to improve business performance.

This study comprises of three 'Areas of Study' and three related 'Outcomes'. They are:

1. Accounting for inventory

In this area of study, students investigate use of both the First-In, First-Out (FIFO) and Identified Cost inventory cost assignment methods to record and report the movements of inventory through the business. The students need to be able to record and report for inventory and discuss the effect of relevant financial and non-financial factors, and ethical considerations, on the outcome of business decisions.

2. Accounting for and managing accounts receivable and accounts payable

In this area of study, students record and report transactions relating to accounts receivable and accounts payable. They examine strategies for managing credit transactions and use indicators, such as accounts receivable turnover and accounts payable turnover, to analyse decisions related to these areas. The students need to be able to record and report for accounts receivable and accounts payable, and analyse and discuss the effect of relevant decisions on the performance of the business including the influence of ethical considerations.

3. Accounting for and managing non-current assets

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

Assessment

Assessments for this unit are school-based. For Accounting, students are required to demonstrate the three outcomes as described above. Suitable tasks for assessment may be selected from the following:

- A folio of exercises utilising manual methods and ICT
- Structured questions utilising manual methods and ICT
- An assignment or test including use of ICT
- A case study including use of ICT
- A report utilising ICT.
- Examination

Additional costs

All students are expected to purchase a text book for this subject. In 2019, new texts will be required due to the implementation of a new study design.

AG. HORT STUDIES

UNIT 1: Agricultural and Horticultural Operations

In this unit, students study local agricultural and horticultural operations and the factors that influence these operations, including historical, environmental, social and economic factors. Students apply their knowledge and skills in researching the feasibility and establishment of a small agricultural and/or horticultural business project.

Areas of Study

Influences on agricultural and horticultural systems

This area of study focuses on the components that constitute Australian agricultural and horticultural systems. These components include the biological aspects: varieties/breeds, structure, function and growth of plants and animals; physical aspects: soils, water, climate and weather, infrastructure, inputs and outputs; and human resources.

Agricultural and horticultural operations

In this area of study students work individually and/or in a group to plan and conduct a small business project involving the monitoring and care of living plants or animals, using available resources. Students develop a detailed business and operational plan for the small business project.

UNIT 2: Production

This unit focuses on plant and animal nutrition, and growth and reproduction and their relationships within agribusiness systems. Students analyse agricultural and/or horticultural production systems in terms of timelines for production, taking into account physical, biological, economic, social and environmental factors. Students use a small business project to explore the role of agribusiness in value adding to the product of an agricultural and/or a horticultural business.

Areas of Study

Biological factors in agriculture & horticulture.

This area of study focuses on nutrition, reproduction and genetics in plants and animals and how these relate to agricultural and horticultural systems. The influence of biological factors and role of scientific research on production are also covered.

Production systems & processes.

This area of study explores the role of agribusiness businesses in adding value to products. The small agricultural and/or horticultural business project is used to investigate and report on factors related to production processes, risk management and marketing.

Assessment Tasks

Assessment tasks can be drawn from a range of assessment tools including:

Classwork/practical activities.

Plant & Animal reproduction and nutrition.

Enterprise Report

Examination

BIOLOGY UNIT 1 2016 - 2020

Rationale

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system, species and ecosystem levels.

Students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills.

VCE Biology provides for continuing study pathways which lead to a range of careers including botany, genetics, immunology, microbiology, pharmacology and zoology. Biology is also applied in many fields including biotechnology, dentistry, ecology, education, food service, forestry, health care, horticulture, medicine, optometry, physiotherapy and veterinary science. Biologists also work in cross-disciplinary areas such as bushfire research, environmental management and conservation, forensic science, geology, medical research and sports science.

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 and maintaining life. Students investigate how organisms interact with their environment and analyse the types of adaptations that assist their survival. Students consider how the planet's biodiversity is classified and the factors that affect the growth of a population.

Entry

There are no prerequisites for entry to Units 1, 2 and 3.

Outcomes

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

1. Investigate and explain how cellular structures and systems function to sustain life.
2. Explain how various adaptations enhance the survival of an individual organism, investigate the relationships between organisms that form and analyse the impacts of factors that affect population growth.
3. Design and undertake an investigation related to the survival of an organism or species, and draw conclusions based on evidence from collected data.

Assessment

1. Log Book/ Journal of Practical Reports
2. Design, undertake and present a Practical Investigation
3. Assignments
4. Tests

Business Management

Unit 1: Planning a Business

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. After exploring these factors, the students create a business plan for a fictitious business.

This study comprises of three 'Areas of Study' and three related 'Outcomes'. They are:

1. The business idea

In this area of study, students investigate how business ideas are created and how conditions can be fostered for new business ideas to emerge. The students need to be able to describe how and why business ideas are created and developed, and explain the methods by which a culture of business innovation and entrepreneurship may be fostered in a nation.

2. External environment

Students consider factors from the external environment such as legal, political, social, economic, technological, global and corporate social responsibility factors and the effects these may have on the decisions made when planning a business. The students need to be able to describe the external environment of a business and explain how the macro and operating factors within it may affect business planning.

3. Internal environment

The internal environment includes business models, legal business structures and staffing. Students explore these factors and consider how planning decisions may have an effect on the ultimate success of a business. Students need to be able to describe the internal business environment and analyse how factors from within it may affect business planning.

Assessment

Assessments for this unit are school-based. For Business Management, students are required to demonstrate the three outcomes as described above. Suitable tasks for assessment may be selected from the following:

- A case study analysis
- Development of a business plan and/or feasibility study
- An essay/report
- A business survey and analysis
- A media analysis.
- Tests
- Examination

Additional costs

All students are expected to purchase a text book for this subject. In 2019, second hand texts will be suitable.

Chemistry

Info

Chemistry is a science that explores the workings of the universe from the smallest particles we know –atoms. Chemistry is a course for students who like patterns, practical experiments and are okay at maths. Chemistry is used to explain things at the molecular level, as well as create new materials such as medicines and polymers.

Ideally students will have done Year 10 Chem/Phys. And ideally they will have done Year 11 Chemistry before Year 12 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. In this unit students investigate the chemical properties and practical applications of a range of materials including metals, crystals, polymers, nanomaterials and giant lattices. They explore and explain the relationships between properties, structure and bonding forces within and between particles that vary in size from the visible through to nanoparticles, molecules and atoms. Students are introduced to quantitative concepts in chemistry.

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 examine the structure and bonding within and between water molecules in order to investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. They are introduced to stoichiometry and to analytical techniques and instrumental procedures analysis, and apply these to determine concentrations of different species in water samples, including chemical contaminants.

VCE PRODUCT DESIGN AND TECHNOLOGY, UNITS 1 AND 2.

Unit 1: Sustainable product redevelopment.

This unit focuses on the analysis, modification and improvement of a product design with consideration of sustainability. It is common for designers in Australia to use products from overseas as inspiration when redeveloping products for the domestic market. Sustainable redevelopment refers to designers and makers ensuring products serve social, economic and environmental needs. Generating economic growth for design and manufacturing in Australia can begin with redeveloping existing products so they have positive social and minimal environmental impact. In this unit students examine claims of sustainable practices by designers. Students consider the sustainability of an existing product, such as the impact of sourcing materials, manufacture, distribution, use and likely disposal. They consider how a redeveloped product should attempt to solve a problem related to the original product. Where possible, materials and manufacturing processes used should be carefully selected to improve the overall sustainability of the redeveloped product.

In Area of Study 1 students consider the sustainability of an existing product and acknowledge the intellectual property (IP) rights of the original designer. Working drawings (also known as flats, trade sketches, assembly or technical drawings) are used to present the preferred design option.

In Area of Study 2, students produce a redeveloped product using tools, equipment, machines and materials, taking into account safety considerations. They compare their product with the original design and evaluate it against the needs and requirements outlined in their 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 end-user/s' 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 use digital technologies to facilitate teams to work collaboratively online. In this unit students gain inspiration from an historical or a contemporary design movement or style and its defining factors such as ideological or technological change, philosophy or aesthetics.

In Area of Study 1, students work both individually and as members of a small design team to address a problem, need or opportunity and consider user-centred design factors. They design a product within a range, based on a theme, or a component of a group product. They research and refer to a chosen design style or movement.

In Area of Study 2 the finished product is evaluated.

VCE ENGLISH UNITS 1 & 2

FORMAL ASSESSMENT TASKS 2019

UNIT 1 is comprised of two outcomes:

1. READING AND CREATING TEXTS

2. ANALYSING AND PRESENTING ARGUMENT

UNIT 2 is comprised of two outcomes:

1. READING AND COMPARING TEXTS

2. ANALYSING AND COMPARING ARGUMENT

ASSESSMENT -

Level of achievement in **UNITS 1 & 2 ENGLISH** is measured by assessment in 8 formal assessment tasks and one exam at the end of each semester.

SCHOOL ASSESSED COURSEWORK -

UNIT	OUTCOME	AT [ASSESSMENT TASK]	TASK DETAILS
1	1	1	Extended text response essay on <i>Twelve Angry Men</i> , focusing on the ideas, characters and themes.
		2	Creative response to a text including a written explanation.
	2	3	A written analysis of a persuasive text.
		4	Oral presentation of an argument regarding an issue debated in the Australian media from September 2018.
2	1	1	Extended text response essay on <i>The Castle</i> focusing on justifying an overall interpretation of the text.
		2	A written comparative essay of <i>The Castle</i> and <i>Growing Up Asian in Australia</i> .
	2	3	Presentation of an argument in written form, including a written explanation.
		4	Written analysis and comparison of two persuasive texts.

EXAMINATIONS 2019

An examination will be held at the end of each Unit. Each exam will be 2 hours in duration, plus an additional 10 minutes of reading time, and include each area of study that has been covered across the semester.

ORDER OF ASSESSMENT

UNIT 1	UNIT 2
<ul style="list-style-type: none">• Persuasive Oral Presentation• Text Response Essay - <i>Twelve Angry Men</i>• Language Analysis• Creative Response	<ul style="list-style-type: none">• Text Response Essay - <i>The Castle</i>• Comparative Text Response Essay - <i>The Castle</i> and <i>Growing Up Asian in Australia</i>• Written presentation of a point of view• Comparative Language Analysis

TEXT BOOK REQUIREMENTS

In order to successfully complete Units 1 & 2 English, students must ensure that they have access to the texts studied throughout the year. The following texts may be purchased by students who have completed the 2018 course;

- *Twelve Angry Men* [1955] by Reginald Rose
- *Growing Up Asian in Australia* [2008] edited by Alice Pung

****Please note; the text that will coincide with the creative response assessment task will be decided in the coming weeks. Students who opt to study Units 1 & 2 English will be notified of the text details as soon as possible.***

Health and Human Development – please note this is a Year 1 subject which is offered to Year 11s

Info

VCE Health and Human Development provides students with broad understandings of health and wellbeing that reach far beyond the individual. Students learn how important health and wellbeing is to themselves and to families, communities, nations and global society. Students explore the complex interplay of biological, sociocultural and environmental factors that support and improve health and wellbeing and those that put it at risk. VCE Health and Human Development offers students a range of pathways including further formal study in areas such as health promotion, community health research and policy development, humanitarian aid work, allied health practices, education, and the health profession **Students do NOT need to do Year 11 HHD before beginning Year 12 HHD.**

Unit 3 – Australia’s Health in a Globalised World

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

Unit 4 – Health and Human Development in a Global Context

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

Unit 2: Twentieth century history 1945–2000

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century. The establishment of the United Nations in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948 was the first global expression of human rights. Despite internationalist moves, the second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

Area of Study 1 Competing ideologies

- What were the causes of the Cold War?
- What were the key characteristics of the ideologies of communism in the USSR and democracy and capitalism in the USA?
- What was the impact of the Cold War on nations and people?
- What led to the end of the Cold War?

Area of Study 2 Challenge and change

- What were the significant causes of challenge to and change in existing political and social orders in the second half of the twentieth century?
- • How did the actions and ideas of popular movements and individuals contribute to change?
- What impacts did challenge and change have on nations and people?

Assessment

For this unit students are required to demonstrate two outcomes. As a set these outcomes encompass the areas of study in the unit.

Assessment tasks over Units 1 and 2 should include the following:

- a historical inquiry
- an analysis of primary sources
- an analysis of historical interpretations
- an essay.

Units 3 and 4: Australian History – Please Note this is Year 12 subject which is offered to Year 11s

Unit 3: Transformations: Colonial society to nation

Area of Study 1 The reshaping of Port Phillip District/Victoria, 1834–1860

- How did Aboriginal and British arrivals' understanding of land management and land ownership differ in the Port Phillip District/Victoria?
- What were the demographic and political consequences of the gold rushes?
- What were the responses of and outcomes for Aboriginal people following the arrival of the pastoral and gold rush colonists?

Area of Study 2 Making a people and a nation 1890–1920

- What visions drove the formation of the Australian nation?
- What measures were introduced between Federation and 1914 to implement this vision?
- How did participation in World War One affect Australians' visions for the new nation?

Unit 4: Transformations: Old certainties and new visions

Area of Study 1 Crises that tested the nation 1929–1945

- How did Australia become involved in external crises between 1929 and 1945?
- What social, economic and political consequences did these crises have on the nation?
- How did crisis affect the cohesion of the nation?

Area of Study 2 Voices for change 1965–2000

- What changes were sought in Australian society 1965–2000 and why?
- What debates were generated about change?
- To what extent was significant change achieved?

Assessment

Unit 3

Outcome 1	50%
Outcome 2	50%

Unit 4

Outcome 1	50%
Outcome 2	50%

Each of the following four assessment tasks must be completed over Units 3 and 4:

- a historical inquiry
- an analysis of primary sources
- an analysis of historical interpretations
- an essay
- **External assessment- The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 per cent.**

LEGAL STUIDES UNIT 1

Unit 1: Guilt and liability

In this unit students develop an understanding of legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria. Students investigate key concepts of criminal law and civil law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. In doing so, students develop an appreciation of the way in which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused, and the liability of a party in a civil dispute.

Area of Study 1 Legal foundations

- the role of individuals, laws and the legal system in achieving social cohesion and protecting the rights of individuals
- the principles of justice: fairness, equality and access
- sources of law such as common law and statute law
- types of law such as criminal law and civil law
- the distinction and relationship between criminal law and civil law

Area of Study 2 The presumption of innocence

- the purposes of criminal law
- the presumption of innocence
- key concepts of criminal law, including: – the elements of a crime: actus reus and mens rea – strict liability – the age of criminal responsibility – the burden of proof – the standard of proof
- types of crime such as crimes against the person and crimes against property
- possible participants in a crime such as principal offenders and accessories
- two criminal offences and for each offence: – the elements of the offence – possible defences – trends and statistics in relation to the offence – the possible impact of the offence on individuals and society

Area of Study 3 Civil liability

- the purposes and types of civil law
- key concepts of civil law, including: – breach – causation – loss – limitation of actions – the burden of proof – the standard of proof
- possible plaintiffs and defendants to a civil dispute
- two areas of civil law and for each area of law: – the rights protected by the law – the elements required to establish liability – the limitation of actions – possible defences –

Assessment tasks

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

- a folio of exercises
- structured questions
- a classroom presentation
- a report
- a question-and-answer session.

VCE Foundation Maths Units 1 and 2

In Foundation Mathematics there is a strong emphasis on the use of mathematics in practical contexts encountered in everyday life in the community, at work and at study. The areas of study are:

- Space, shape and design
 - Properties of shapes and objects
 - Use of plans, elevations, maps, models and diagrams
 - Use of Similarity and Symmetry
 - Use of location, distance, direction and scale on diagrams, maps and plans
 - Pythagoras' theorem in practical situations

- Patterns and number
 - Use integers, decimals, fractions, ratios, proportions, percentages and rates to solve practical problems
 - Use formulas and algebraic expressions to describe relationships between variables and to model patterns
 - Solution equations to solve problems including predicting a required quantity or finding a break-even point

- Data
 - Representing information in diagrammatic, graphical and tabular forms
 - Interpretation of diagrams, charts, tables and graphs
 - Use of measures of central tendency and spread to summarise and interpret data
 - Comparison and interpretation of data sets

- Measurement
 - Application and use of metric units and measures
 - Interpretation of scales

Interpretation and use of time and duration including time and date specifications, conventions, schedules, timetables and time zones.

General Mathematics Units 1 and 2

General Mathematics provides for different combinations of student interests and specific preparation for study of VCE Mathematics at the Unit 3 and 4 level in Further Mathematics.

For Units 1 and 2, content is selected from the six areas of study to provide those students continuing to Further Mathematics Unit 3 & 4 with preparation units to suit that course. Other units are selected to provide students a broad mathematical background as they move towards further study or vocational training.

The award of satisfactory completion for a unit is based on whether the student has demonstrated the set of outcomes specified for the unit. The three outcomes are:

1. On completion of this unit the student should be able to 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.
2. On completion of each unit the student should be able to 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.
3. On completion of this unit the student should be able to 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.

Unit 1

- Computation and Practical Arithmetic
- Investigating and Comparing Data Distributions
- Linear Relations and Equations
- Shape & Measurement
- Matrices

Unit 2

- Number Patterns and Recursion
- Investigating the relationship between two numerical variables
- Linear Graphs and Models
- Networks

Assessment Tasks

It is expected that student spend 1 to 2 hours per week completing set exercises, revision as well as weekly homework tasks. Results of these tasks are included in end of semester grades and reporting.

At least 4 topic tests/application tasks are conducted per semester.

An end of semester exam of duration 1.5 hours is compulsory for this subject. A two sided A4 reference page is allowed at this exam.

Students must hire a TI-Nspire CAS calculator and purchase 'Nelson General Mathematics Book 1' and 'Nelson General Mathematics Book 2' textbooks to successfully complete this subject.

Unit 1 & 2 Mathematical Methods

Unit 1& 2 Methods are prerequisites for completing Unit 3&4. These units build on skills and knowledge which are assumed from Year 11.

In order to complete Unit 1 & 2 students it is recommended students have a strong understanding and skills with linear and quadratic equations from Year 10 Mathematics.

Unit 1 & 2 Methods have four Areas of Study including:

AOS 1 – Functions and Graphs

AOS 2 – Algebra

AOS 3 – Calculus

AOS 4 – Probability and Statistics

They build upon skills across both units and will be covered in a range of assessment tasks including tests, application tasks, presentations and classwork.

Assessments:

Outcome 1 – Skills & Procedures

On completion of each unit the student should be able to define and explain key concepts as specified in the content from the areas of study, and apply a range of related mathematical routines and procedures. To achieve this outcome the student will draw on knowledge and skills outlined in all the areas of study.

Outcome 2 – Modelling & Applications

On completion of each unit the student should be able to apply mathematical processes in non-routine contexts, including situations requiring problem-solving, modelling or investigative techniques or approaches, and analyse and discuss these applications of mathematics. To achieve this outcome the student will draw on knowledge and skills outlined in one or more areas of study.

Outcome 3 – Use of CAS Technology

On completion of each unit the student should be able to 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. To achieve this outcome the student will draw on knowledge and related skills outlined in all the areas of study.

Regular homework and classwork must be submitted in order to satisfy the unit outcomes.

Students must rent or purchase a CAS Calculator for use during the course in order to meet Outcome 3. TI-Nspire CX CAS Calculators are available for rent through the school.

Exams

There will be one-two exams at the end of each semester in order to model the Year 12 structure.

Unit 1 - Examination 1 (40 marks):

This examination comprises short-answer and some extended-answer questions covering all areas of study in relation to Outcome 1. It is designed to assess students' knowledge of mathematical

concepts, their skills in carrying out mathematical algorithms without the use of technology and their ability to apply concepts and skills.

The examination will be of **one hour duration** and **no technology (calculators or software) or notes** of any kind are permitted. A sheet of formulas will be provided with the examination.

Unit 2 - Examination 2 (80 marks)

This examination comprises multiple-choice questions and extended-answer questions covering all areas of the study in relation to all three outcomes, with an emphasis on Outcome 2. The examination is designed to assess students' ability to understand and communicate mathematical ideas, and to interpret, analyse and solve both routine and non-routine problems.

The examination will be of **two hours duration** and student **access to an approved technology** with numerical, graphical, symbolic and statistical functionality will be assumed. **One bound reference**, text (which may be annotated) or lecture pad, may be brought into the examination.

PHYSICAL EDUCATION

UNIT 1 – THE HUMAN BODY IN MOTION

In this unit, the following topics are investigated.

1. The musculoskeletal and cardiorespiratory systems and how they work together are investigated. A range of practical and theoretical studies are used to investigate the relationship between body systems and physical activity, sport and exercise.
2. The use of legal and illegal practices are investigated to determine the effects on improving performance.
3. The effect of cultural and social factors and how they impact on performance

UNIT 2 – PHYSICAL ACTIVITY, SPORT AND SOCIETY.

In this unit, the students study the following topics:

1. The relationships between physical activity, sport, health and society.
Students focus on the role of physical activity, sport and society in developing and promoting healthy lifestyles and participation in physical activity across the lifespan
2. The contemporary issues which are associated with physical activity and sport.
Students focus on a range of contemporary issues associated with physical activity and/or sport at the local, national and global level.

Physics

Info

Physics is both a practical and theoretical science, which contributes to our understanding of the physical universe from the tiny building blocks of matter to the broad expanses of the Universe. This understanding has significance for the way we understand our place in the Universe. **Ideally students will have done Year 10 Chem/Phys before Year 11 Physics. And ideally they will have done Year 11 Physics before Year 12 Physics.**

Unit 1 - What Ideas explain the Physical World?

In this unit students explore some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. They consider thermal concepts by investigating heat and assessing the impact of human use of energy on the environment. Students evaluate common analogies used to explain electricity and investigate how electricity can be manipulated and utilised. They examine 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.

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

This unit requires that students undertake a core study related to motion, one option from a choice of twelve options, and a student-designed investigation related to motion and/or one of the twelve options. In this unit, students explore the power of experiments in developing models and theories. They make direct observations of physics phenomena and examine the ways in which phenomena that may not be directly observable can be explored including through indirect observations. Students investigate the ways in which forces are involved both in moving objects and in keeping objects stationary. They choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science.

Unit 1 Psychology

Area of Study 1 - How does the brain function?

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.

Area of Study 2 - What influences psychological development?

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.

Area of Study 3 - Student-directed research investigation

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.

Possible assessment tasks

- a report of a practical activity involving the collection of data
- a research investigation involving the collection of data
- a brain structure modelling activity
- a logbook of practical activities
- analysis of data and results including conclusions
- media analysis
- a test comprising multiple choice, short answer and extended response
- A report of an investigation.
- End of semester exam

VCD Unit 2

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

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

Outcome 1

Technical drawing in context – based on environmental or industrial design, students will complete a series of tasks that develop their skills in technical drawing both manually and digitally.

Outcome 2

Type and imagery in context – students explore the role of type in society and how it is created, including conventions and type anatomy. They explore how to manipulate type to create imagery through a variety of design tasks.

Outcome 3

Applying the design process – students use the design process to create a visual communication appropriate to a given brief.

Assessment tasks:

- folio of technical drawings created using manual and digital methods
- folio of typography and image ideas and concepts created using manual and digital methods
- folio demonstrating the design process using manual and digital methods
- final presentations of visual communications

Intermediate VCAL

VCAL Literacy

A total of 12 learning outcomes need to be completed satisfactorily to earn credits to the VCAL certificate.

The purpose of the VCAL Literacy Skills units is to develop literacy skills and knowledge that allow effective participation in the four main social contexts in which we function in Australian society:

- family and social life
- workplace and institutional settings
- education and training contexts
- community and civic life.

Literacy (reading, writing, speaking and listening) occurs in all these contexts and different domains or areas of literacy practice correspond with these social contexts.

The 4 main domains are Literacy for self-expression, Literacy for practical purposes, Literacy for knowledge and Literacy for public debate.

Reading Skills – 4 outcomes

Writing Skills - 4 outcomes

Oral Skills - 4 outcomes

VCAL Personal Development

A total of 5 learning outcomes need to be completed satisfactorily to earn credits to the VCAL certificate.

The purpose of the Personal Development Skills (PDS) strand is to develop knowledge, skills and attributes that lead towards:

- the development of self
- social responsibility
- building community
- civic and civil responsibility, e.g. through volunteering and working for the benefit of others
- improved self-confidence and self-esteem
- valuing civic participation in a democratic society.

In Unit 1 the content of learning programs link to one of the following curriculum contexts:

- personal development (self)
- health and wellbeing
- education
- family

VCAL Numeracy

The purpose of this unit is to enable students to develop the confidence and skills to perform simple and familiar numeracy tasks and to develop the ability to make sense of mathematics in their daily personal lives.

The mathematical skills involved include:

- Numerical Skills and Processes:
 - Perform a range of calculations of whole numbers, fractions and decimals with the four operations.
 - apply the measures of central tendency (mean, median and mode)
 - measure length, mass, capacity/volume, time and temperature
- Financial Literacy:
 - Perform calculations involving money
 - Calculate the interest payable on a transaction using a credit card from a range of financial institutions
 - Demonstrate a detailed personal budget
- Planning and Organising:
 - Converting between digital and analogue time and calculating elapsed time
 - Use and create maps
 - Determine distances and speeds involving time
- Measurement, Representation and Design
 - Name and represent common two-dimensional shapes and three-dimensional objects
 - Create detailed plans and diagrams
 - Estimate lengths, areas and volumes
 - Apply scale techniques using ratios to enlarge/reduce plans representing real-life

These skills will be demonstrated in a Numeracy-based Industry Project which will:

- Apply Numerical Skills in an industry context
- Use appropriate Software Tools and Devices to Represent Data
- Communicate the Results of the Project

VET subjects

The following subjects may be offered next year and students are asked to put in an expression of interest.

Certificate II in Business Management	Mildura
Certificate II in Horticulture	Mildura
Certificate II in Animal Studies	Mildura
Certificate III in Allied Health Assistance. Partial completion This means you will not receive your certificate at the end of Year 12 But may need to complete more studies at TAFE	Mildura
Certificate II in Automotive Studies	Ouyen

Information on each of these courses can be obtained from Mrs O'Connor.

If students are interested they should mark 'VET subject' on grid.

If the course indicates Mildura then students will need to commit to attending classes from 9 to 3pm every Friday during the school term in Mildura.

If you are a VCE/VCAL student it will be your responsibility to catch up on any work that may be missed while attending classes in Mildura.

There may also be some additional costs involved to complete these certificates.

