



Yeshivah College

VCE Information

Handbook 2019

TABLE OF CONTENTS

INTRODUCTION	2
VCE Information	3
Changing subjects.....	3
Attendance	3
Parent Teacher Interviews	4
VCE SUBJECT SELECTION	4
GLOSSARY OF VCE TERMS	6
ATAR (Australian Tertiary Admission Ranking)	6
GAT (General Assessment Task)	7
Higher Education (Extension) study	7
School Assessed Coursework (SAC)	7
School Assessed Taskwork (SAT)	7
Statistical Moderation	8
Study Design	8
Study Score	8
VCE	8
VCAA	8
VET (Vocational Education and Training)	8
VTAC	8
SUBJECT OVERVIEWS	9
Accounting	9
Business Management.....	10
Chemistry	11
Economics.....	13
English	15
Hebrew	17
Legal Studies	17
Mathematics.....	18
Physics	21
Psychology	22

INTRODUCTION

The next two years will provide a great challenge and opportunity for this year's Year Ten students, who will become senior students at Yeshivah College.

Students will be making many decisions that will impact on their futures.

This booklet has been prepared with the aim to give students guidance in making their first decision – **the selection of VCE subjects**.

Yeshivah College provides many resources to this end, including an informative and extensive Careers Department in the Secondary Library, individual counselling which is available from the Careers Teacher, VCE teachers, the VCE Co-ordinator and the Head of Teaching & Learning as well as professional aptitude testing.

Students are encouraged to use these and other resources to research potential tertiary courses and careers. We recommend that this process is viewed as a joint venture between parents, their sons and the school.

This booklet provides basic information relating to the VCE. Further detailed information may be accessed at the following sites:

- VTAC (ACTER, scaling, VICTER 2018 – course information for current Year 10 students, Courselink), at vtac.vic.edu.au
- VCAA (VCE Handbook including requirements, etc.), at vcaa.vic.edu.au

Should you have any queries related to course selection or the VCE, please do not hesitate to contact the VCE Co-ordinator or the Head of Teaching & Learning.

We take this opportunity to wish your son every success in his VCE studies.

VCE Information

1. Each VCE study or subject is divided into 4 units. Details of the subject matter in each study that Yeshivah College offers is contained in this handbook.

Units 1 and 2 of a study are usually undertaken at Year 11 whilst Units 3 and 4 studied at Year 12.

2. In some studies, students may enter at Unit 2 or Unit 3, however this will be at the discretion of the school. A student entering a study may need to satisfy some pre-requisite reading or exercises set and possibly be assessed by the subject teacher.

3. Units 1 and 2 may be taken as single units, however Units 3 and 4 must be studied together as a sequence. To graduate VCE, students must satisfactorily complete a minimum of 16 Units.

It is compulsory for students to satisfactorily complete 2 units of English of which 2 units must be Units 3 & 4. At Year 12, a minimum of 3 sequences of Units 3 and 4 must be studied in addition to English.

4. It is anticipated that most students will undertake a total of 16-24 Units in their overall VCE program. *A typical VCE program consists of:*

- At Year 11: 6 Unit 1 and 2 studies including English Unit 1 and 2. Some students will be permitted to undertake a Unit 3 and 4 sequence in Year 11 if they have satisfied the pre-requisites, instead of a Unit 1 and Unit 2 study.

- At Year 12: 5 Unit 3 and 4 studies including English.

Note that those students who have completed VET Applied Ivrit Cert II & III may select one less 3&4 sequence at Year 12.

5. Each unit consists of 100 hours of study, of which it is expected that the school will offer approximately 50-60 hours as class time. This is equivalent to one semester.

Changing subjects

If a student wishes to change a subject, he will need to seek approval from the VCE Co-ordinator and Head of Teaching & Learning. If appropriate the student will receive a Course Scan report of the effect this will have on Tertiary Courses available to them. A letter will be sent home outlining the effect this subject change will have on the student's VCE program. This letter is to be signed and returned to the VCE Co-ordinator before the change can be made. The deadline for enrolling in or withdrawing from Unit 3 and 4 sequences is set by VCAA and the students will be notified of the date in the VCE Handbook of Rules and Regulations distributed at the start of Year 11.

Attendance

According to the VCAA handbook:

“All VCE units require 50 hours of class time. A student needs to attend sufficient class time to complete work. The school sets minimum class time and attendance rules. Where a student has completed work but there has been a substantial breach of attendance rules and the school therefore wishes to assign N to the unit, the school must assign N for one or more outcomes and thus the unit.”

At Yeshivah College, students are required to attend 95% of all classes in every Unit. Exceptions may be made for students with authorised absences if agreed upon by the VCE Co-ordinator.

Students absent on the day of an assessment task or SAC must notify the VCE Co-ordinator by telephone or email.

SAC dates for all subjects will be distributed to students early in Term One.

Upon return to school the student must produce a Doctor's Certificate or other relevant and appropriate notification from a suitable professional and dated the day of, or the day after, the SAC. If the absence is unexplained, the student will receive a zero mark or the assessment task or SAC. The student will be permitted to complete the task at a later date so as to satisfy the required Learning Outcomes for the Unit but will not be graded.

Medical or other appointments should not be made during school hours and will not be considered as reasons to miss an assessment task or SAC.

All VCE students will be permitted to leave school early at the end of the day once their scheduled classes are finished and provided that a parent/guardian has signed the appropriate form. Students must sign out before leaving.

Parent Teacher Interviews

Compulsory Parent Teacher evenings are held in Terms 1 and 3. All students are required to attend with their parent/s.

There is also a compulsory VCE Information Evening for parents and students undertaking at least one Unit 3 and 4 subject.

VCE SUBJECT SELECTION

When selecting VCE subjects:

Do:

- think about what interests you and what you like doing
- consider the VCE Studies the College is offering
- consider the College prerequisites for each Study
- consider the career options investigated during the VCE information sessions using the VICTER supplement and the Job Guide
- keep your options open
- attend Open Days.

Don't:

- panic if you have no idea what studies to take up
- choose studies based on their scaling. There is no point selecting a study that you struggle with simply because it has traditionally been scaled up. You will get higher scores in studies that you like and are good at, even after scaling.

Although Yeshivah College aims to best accommodate the subject choices of each student, this is not always possible because:

1. VCE requirements must be met
2. a student may not have met the school requirements for that subject
3. pre-requisite subjects for entry into tertiary courses must be met
4. choice may be restricted where subjects are blocked against each other in the timetable
5. there may not be sufficient students wanting to study a subject to make a class viable

When designing a VCE program, there are a number of important factors to consider:

1. VCE Requirements

Refer to VCE INFORMATION.

2. School Requirements

The school requirements for students entering Year 11 are as follows:

- a. Students wishing to study Chemistry or Physics must obtain an overall pass in General Science as well as a minimum of a B grade in that specific area of the Science course.
- b. Students wishing to study Psychology Units 3&4 at Year 11 must obtain an overall pass for Year 10 General Science and a minimum of a B+ for the Biology component of the Year 10 Science course.
- c. Students wishing to study Mathematical Methods at Year 11 must obtain a minimum of a C grade for Year 10 Mainstream Mathematics. Students wishing to study General Mathematics (Specialist) at Year 11 must obtain a minimum of a B grade for Year 10 Mainstream Mathematics.

If any student does not satisfy the above requirements, discussions will take place including the student, parents and the school in regard to promotion into Year 11 and alternative subject selection.

3. Pre-requisites for Tertiary courses

Sessions will be conducted at school to assist students to identify their areas of interest. Sessions, will be used to direct students to choose career paths. Using The Job Guide* and VICTER**, students can identify the relevant courses offered by tertiary institutions as well as the pre-requisite VCE subjects. Both prerequisites and extra requirements, such as folios, are often referred to as 'course and institutional requirements'. No matter how good an ATAR is, unless the prerequisites are met and any extra requirements completed, a student will not be considered by course authorities for their courses.

The VCE Co-ordinator/Careers Advisor is available to talk to students and their parents if advice is needed in making subject choices.

Once students have selected their subjects, students will receive a list of tertiary courses that will be unavailable to them. It is strongly advised that students and parents check the list carefully and then contact the VCE Co-ordinator/Careers Advisor if there are any concerns.

* *The Job Guide* is a publication produced annually by the Australian Government Department of Education, Employment and Workplace Relations. It is prepared essentially for Year 10 students and has information on more than 500 jobs. Students are provided with a hard copy but it is available online at www.jobguide.deewr.gov.au

** *VICTER* is a lift-out from the Age or Herald-Sun newspapers that lists all the pre-requisite studies required for each course offered by tertiary institutions in Victoria. All Year 10 students were expected to collect a copy of this lift-out. It is also available to buy at newsagents or online on the VTAC [website](http://www.vtac.edu.au)

4. Timetable blockings

Subject blockings are determined once all student subject choices have been handed in. The blockings are designed so as to minimise student clashes, taking into account organisational constraints. However, it is not possible that all combinations of subjects will be available. If a subject cannot be offered by the school or is not available in the blockings, students may enrol in a subject externally. However the student may not miss classes at Yeshivah College in order that he may attend classes elsewhere.

YEAR 11 2019	YEAR 12 2020
English 1 & 2 - (Compulsory)	English 3 & 4 - (Compulsory)
Jewish Studies (non-VCE subject) - (Compulsory)	Jewish Studies (non-VCE subject) - (Compulsory)
<i>Select from:</i>	
Accounting 1 & 2	Accounting 3 & 4
Legal Studies 3 & 4	Business Management 3 & 4
Chemistry 1 & 2	Chemistry 3 & 4
Economics 1 & 2	Economics 3 & 4
Further Maths (Business) 1 & 2	Further Maths 3 & 4
General Maths (Specialist) 1 & 2	Specialists Maths 3 & 4
Maths Methods 1 & 2	Maths Methods 3 & 4
Ivrit 1 & 2	Ivrit 3 & 4
Physics 1 & 2	Physics 3 & 4
Psychology 3 & 4	Psychology 3 & 4

GLOSSARY OF VCE TERMS

ATAR (Australian Tertiary Admission Ranking)

The ATAR is an overall percentile ranking (not a mark) reflecting a student's comparative performance amongst the relevant age group in a given year nationally. VTAC calculates the ATAR after scaling the VCE study scores so that they become ATAR study scores.

To determine an ATAR, the ATAR study scores of a study of English plus the three best ATAR study scores (not including English, although a different English may be included) are added together. These 4 studies are known as the primary Four. Then 10% of a 5th and/ or 6th ATAR study score (known as an increment) is added to this aggregate. This total aggregate is then used to determine the overall percentile ranking or ATAR that a student receives. The highest rank is 99.95 and then decreases in steps of 0.05. The group of students with the highest aggregate will be assigned the highest rank of 99.95. The lowest automatically reported ATAR is 30.00, with ATARs below 30.00 being reported as 'less than 30'.

If a student has more than six results, the six permissible results that give the highest ATAR are used. Studies used in the calculation of the ATAR may be taken over any number of years; however the time taken to complete VCE studies may be taken into account by institutions in considering applicants in the middle-band.

GAT (General Assessment Task)

A test in June that is completed by all students studying at least one Unit 3 and 4 sequence. The GAT is a 3 hour examination measuring general achievement across three broad areas:

- written communication
- maths, science and technology
- arts and social sciences.

The GAT does not test knowledge of a particular topic or subject but rather the general skills that students have developed.

The GAT does not contribute directly towards VCE results but the VCAA uses the GAT for

- reviewing school assessments in SATs
- checking the accuracy of student scores in Examinations if there is a significant difference between achievement on SACs or SATs and examinations
- enhancing the statistical moderation of SACs
- calculating Derived Examination Scores (DES), a special provision for which students may apply if they have become ill or suffered a trauma in the two-week lead-up to the examinations

It is therefore in the student's best interest to perform as well as they can in the GAT.

Higher Education (Extension) study

Higher Education studies are approved tertiary studies that can be attempted by very able students. This study may count in the ATAR in place of a 5th or 6th study. An increment will be awarded for the extension study. The increment is calculated as 10% of the average of the primary four studies. A student will only be able to study one Higher Education Study.

School Assessed Coursework (SAC)

SACs constitute the assessment of work, to establish how a student is performing in Units 3 and 4. They must conform to the Study Design in each study. SACs contribute to the Study Score

School Assessed Taskwork (SAT)

A SAT is a task done in some studies (such as in Studio Art), to assess how a student is performing in Units 3 and 4. It is often in the form of a folio. SATs are marked by teachers according to VCAA specifications and then reviewed independently by VCAA.

Statistical Moderation

To ensure that students at any school are not disadvantaged or advantaged by the nature or marking of SACs, VCAA uses a process called moderation, which, in simple terms, aligns the range of marks awarded to SACs in a study to the range of marks awarded in the examinations in that study. All VCE studies undergo moderation.

Study Design

A study design for each VCE study is published by the VCAA. It specifies the content for the study and how students' work is to be assessed. Schools must adhere to the requirements in the study designs.

Study Score

A score from 0 to 50, developed by VCAA, which shows how a student performs in a study, relative to all other students in that study. It is based on results in school-based assessment and external examinations. The mean study score in any study is 30 and the standard deviation is 7. In each VCE study with large enrolments (1000 or more), a study score of 42 or more indicates that the student is in the top 5% of candidates, a score above 37 indicates that the student is in the top 15%, and scores of 23 - 37 indicate that the student is in the middle range.

All study scores are scaled or adjusted to take into account the degree of difficulty of the study. They then become scaled or ATAR study scores. So a study score in Specialist Mathematics, which is considered a difficult study, will be scaled up, whereas a study score in Further Mathematics, considered far less difficult, may be scaled down.

As a result of government policy to encourage the study of LOTEs, a further adjustment is made during scaling. The scaled mean of each LOTE is increased by five. This does not mean that all students' scaled study scores increase by five; this only occurs for study scores at or around 30. This increment becomes progressively less as study scores increase between 30 and 50, and decrease between 30 and 0.

Note that VCE studies are always scaled in the year in which they are undertaken (this may not necessarily be in the year in which you receive your ATAR).

VCE

Victorian Certificate of Education

VCAA

Victorian Curriculum and Assessment Authority is the Victorian Government authority responsible for the development and management of the VCE.

VET (Vocational Education and Training)

This refers to a nationally recognized vocational certificate integrated into VCE.

VTAC

The Victorian Tertiary Admissions Centre administers applications and selections to tertiary institutions. It provides a central application point, sending applicant details to selection officers at tertiary institutions and then issuing offers on their behalf.

SUBJECT OVERVIEWS

Please note that the information provided is subject to change at the discretion of VCAA.

Accounting

Aims of the study:

This study is designed to enable students to:

- develop knowledge and skills in accounting;
- develop the skills required to recognise, understand, record, report, analyse and
- interpret financial data and information in a manner appropriate to identified needs;
- understand the relationship of these skills to other legal, economic, managerial and general business skills, and understand their integral role in efficient decision-making;
- develop the capacity to question the need for information, the type of information required and how that information might be generated and used to make and implement decisions;
- use information technology to carry out accounting and financial procedures.

Structure of the study:

This study consists of the following four units:

Unit 1 Establishing & Operating a Service Business

Unit 2 Accounting for a Trading Business

Unit 3 Recording and Reporting for a Trading Business

Unit 4 Control and Analysis of Business Performance

All units focus on accounting and financial operations of a sole proprietor small business.

Unit 1 - introduces the fundamental process of gathering, recording and reporting financial information for use by the individual in a small business.

Unit 2 - introduces the purpose of accounting and the inputting and processing of data into the single entry system of recording to provide information for sole proprietor trading businesses.

Unit 3 - introduces a double-entry system using the accrual basis of accounting. It emphasises the role of accounting as an information system and the role of information technology in completing procedures.

The unit introduces double entry for small businesses operating as sole proprietorships. The accrual approach will be used for recording and reporting. The accounting systems should be applied to trading businesses only using the perpetual method of stock recording, based on the FIFO (first-in-first-out) method.

Unit 4 - further develops the role of accounting as an information system. The focus of the unit is on accounting information for management, and the uses made of the information to promote management effectiveness. It covers recording and reporting for trading businesses only, using perpetual inventory recording and reporting on the accrual basis. Budgeting for cash, profit and financial position is also covered in this unit.

Entry To Study - There are no prerequisites for entry to Units 1, 2 or 3. However, students are strongly advised to undertake Unit 2 before attempting Unit 3. Units 3 and 4 are designed to be undertaken as a sequence.

Why Study Accounting? - Individuals are involved in many situations where financial information is significant, e.g. reconciling the bank statement, applying for a loan, management of a social or sporting club, completing a taxation return, investing money, running a small business, etc.

The aims of the study are to develop skills necessary to use financial information in a manner appropriate to identified needs. While accounting can be studied at a tertiary level without any previous study, the first semester at tertiary level can be very difficult without any previous accounting studies. Accounting provides an excellent background for employment in a range of business and management positions. It is also useful for students who are likely to run their own small business.

Business Management

Rationale

In contemporary Australian society, there is a wide variety of business organisations in terms of size, ownership, objectives, resources and location. These organisations are managed by people who establish systems and processes to achieve a range of objectives.

VCE Business Management examines the ways in which people at various levels within a business organisation manage resources to achieve the objectives of the organisation. Students develop an understanding of the complexity, challenges and rewards that come from business management and gain an insight into the various ways resources can be managed in small, medium and large-scale organisations.

The study recognises that there is a range of management theories. In each unit students examine some of these theories and, through exposure to real business scenarios and direct contact with business, compare them with management in practice.

In studying VCE Business Management, students develop knowledge and skills that enhance their, confidence and ability to participate effectively, as socially responsible and ethical members of the business community, and as informed citizens, consumers and investors.

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.

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.

Entry

There are no prerequisites for entry to Unit 3. Students must undertake Unit 3 prior to undertaking Unit 4.

Assessment *Units 3 and 4*

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of Business Management the student's level of achievement will be determined by School-assessed Coursework and an end-of-year examination. Percentage contributions to the study score in Business Management are as follows:

- Unit 3 School-assessed Coursework: 25 per cent
- Unit 4 School-assessed Coursework: 25 per cent;
- End-of-year examination: 50 per cent

Chemistry

Chemistry explores and explains the composition and behaviour of matter and the chemical processes that occur on Earth and beyond. Chemical models and theories are used to describe and explain known chemical reactions and processes. Chemistry underpins the production and development of energy, the maintenance of clean air and water, the production of food, medicines and new materials, and the treatment of wastes.

VCE Chemistry enables students to explore key processes related to matter and its behaviour. Students consider the relationship between materials and energy through four themes: the design and composition of useful materials, the reactions and analysis of chemicals in water, the efficient production and use of energy and materials, and the investigation of carbon-based compounds as important components of body tissues and materials used in society.

Students examine classical and contemporary research, models and theories to understand how knowledge in chemistry has evolved and continues to evolve in response to new evidence and discoveries. An understanding of the complexities and diversity of chemistry leads students to appreciate the interconnectedness of the content areas both within chemistry, and across chemistry and the other sciences.

An important feature of undertaking a VCE science study is the opportunity for students to engage in a range of inquiry tasks that may be self-designed, develop key science skills and interrogate the links between theory, knowledge and practice. In VCE Chemistry inquiry methodologies can include laboratory experimentation, modelling, site tours, fieldwork, local and remote data-logging, simulations, animations, literature reviews and the use of global databases.

Students work collaboratively as well as independently on a range of tasks. They pose questions, formulate hypotheses and collect, analyse and critically interpret qualitative and quantitative data. Students analyse the limitations of data, evaluate methodologies and results, justify conclusions, make recommendations and communicate their findings.

They investigate and evaluate issues, changes and alternative proposals by considering both shorter and longer term consequences for the individual, environment and society. Knowledge of the safety considerations, including use of safety data sheets, and ethical standards associated with chemical investigations is integral to the study of VCE Chemistry.

As well as an increased understanding of scientific processes, students develop capacities that enable them to critically assess the strengths and limitations of science, respect evidence-based conclusions and gain an awareness of the ethical, social and political contexts of scientific endeavours.

The study is made up of four units:

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

Unit 2: What makes water such a unique chemical?

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

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

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

Throughout the unit students use chemistry terminology including symbols, formulas, chemical nomenclature and equations to represent and explain observations and data from experiments, and to discuss chemical phenomena. A research investigation is undertaken in Area of Study 3 related to one of ten options that draw upon and extend the content from Area of Study 1 and/or Area of Study 2.

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 polar nature of a water molecule and the intermolecular forces between water molecules. They explore the relationship between these bonding forces and the physical and chemical properties of water.

In this context students investigate solubility, concentration, pH and reactions in water including precipitation, acid-base and redox. Students are introduced to stoichiometry and to analytical techniques and instrumental procedures, and apply these to determine concentrations of different species in water samples, including chemical contaminants. They use chemistry terminology including symbols, units, formulas and equations to represent and explain observations and data from experiments, and to discuss chemical phenomena. Students explore the solvent properties of water in a variety of contexts and analyse selected issues associated with substances dissolved in water. A practical investigation into an aspect of water quality is undertaken in Area of Study 3. The investigation draws on content from Area of Study 1 and/or Area of Study 2.

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.

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.

Economics

Rationale

Economics is the study of how individuals and societies use resources to satisfy needs. It is central to understanding why individuals and societies behave as they do.

Economic decisions are about resource use in producing goods and services and about the distribution of the proceeds of production. To understand the basis for these decisions, and their impact, requires an understanding of basic economic principles and concepts. Students will develop an awareness of the links between economics and the influence of political, ethical, environmental and social forces on economic decision making.

VCE Economics equips students with a unique set of concepts, ideas and tools to apply to individual and social circumstances, and helps them to be more informed citizens, consumers, workers, voters, producers, savers and investors.

Skills, as well as knowledge, play an important part in the VCE study of Economics. Students develop an ability to identify, collect and process data from a range of sources. They use the inquiry process to plan economics investigations, analyse data and form conclusions supported by evidence.

Unit 1: Economics: choices and consequences

Outcome 1

On completion of this unit the student should be able to explain the role of markets in the Australian economy, how markets operate to meet the needs and wants of its citizens, and apply economic decision making to current economic problems.

Outcome 2

On completion of this unit the student should be able to describe the nature of economic growth and sustainable development and one other contemporary economic issue, explain how these issues are affected by the actions of economic decision-makers, and evaluate the impact of these issues on living standards.

Unit 2: Economic change: issues and challenges

Outcome 1

On completion of this unit the student should be able to describe the factors that influence Australia's population and labour markets, and analyse how changes in these areas may impact upon living standards.

Outcome 2

On completion of this unit the student should be able to describe the nature of two contemporary global economic issues, explain how each issue is affected by the actions of economic decision-makers, and evaluate the impact of the issue on living standards.

Unit 3: Economic activity

Outcome 1

On completion of this unit the student should be able to explain how markets operate to allocate scarce resources, and discuss the extent to which markets operate freely in Australia.

Outcome 2

On completion of this unit the student should be able to explain the nature and importance of key domestic economic goals in Australia, describe the factors that may have influenced the achievement of these goals over the past two years, and analyse the impact each of these goals may have on living standards.

Outcome 3

On completion of this unit the student should be able to explain the factors that may influence Australia's international transactions and evaluate how international transactions and trade liberalisation may influence the current account balance, the Australian Government's domestic macroeconomic goals and living standards in Australia.

Unit 4: Economic management

Outcome 1

On completion of this unit the student should be able to explain the nature and operation of government macroeconomic demand management policies, explain the relationship between budgetary and monetary policy, and analyse how the policies may be used to achieve key economic goals and improve living standards in Australia.

Outcome 2

On completion of this unit the student should be able to explain the nature and operation of government aggregate supply policies, analyse how they may be used to achieve key economic goals and improve living standards in Australia, and analyse the current government policy mix.

Entry

There are no prerequisites for Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

Assessment: Satisfactory Completion

Demonstrated achievement of the set of outcomes specified for the unit.

English

The English language is critical to the way in which students view, understand and appreciate their world, and to the ways in which they participate socially, economically and culturally in Australian society. The study of English encourages the development of literate individuals capable of critical and imaginative thinking, aesthetic appreciation and creativity. The mastery of the key knowledge and skills described in the VCAA Study Design underpins effective functioning in the contexts of study and work as well as productive participation in a democratic society in the twenty-first century. In all four areas of study, students develop their skills in creating written, spoken and multimodal texts.

Units 1 and 2 are undertaken in Year 11 and assessed internally. Units 3 and 4 are assessed by means of school assessed coursework (SACs) and an external end of year examination.

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.

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.

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 are 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.

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 are 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.

All four Units focus on two main Areas of Study that include:

1. Reading, Creating and Comparing Texts

In this area of study students explore how meaning is created in a text. Students identify, discuss and analyse decisions authors have made. They explore how authors use structures, conventions and language to represent characters, settings, events, explore themes, and build the world of the text for the reader. Students investigate how the meaning of a text is affected by the contexts in which it is created and read. Students consider the similarities and differences between texts, developing awareness that some features are specific to texts, while others are similar across texts.



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Students explore how comparing texts can provide a deeper understanding of ideas, issues and themes. They investigate how the reader's understanding of one text is broadened and deepened when considered in relation to another text. Students explore how features of texts, including structures, conventions and language convey ideas, issues and themes that reflect and explore the world and human experiences, including historical and social contexts. Students are encouraged to draw on prior knowledge and supplementary material to broaden and deepen their understanding of texts. Students practise their listening and speaking skills through discussion, developing their ideas and thinking in relation to the texts studied.

Students develop the ability to respond to texts in written and spoken and/or multimodal forms. They develop analytical responses dealing with the ways in which texts convey meaning and various points of view on key issues. They use planning and drafting to test and clarify their ideas, and editing for clear and coherent expression. They include textual evidence appropriately and craft their writing for convincing and effective presentation.

In developing creative responses to texts, students explore how purpose and audience affect the choices they make as writers in developing ideas and planning work, making choices about structure, conventions, and language to develop voice and style. They practise the skills of revision, editing and refining for accuracy and stylistic effect.

When producing written comparisons of selected texts, students are discussing important similarities and differences, and exploring how the texts deal with similar or related ideas, issues or themes from different perspectives. They develop an understanding of the choices available to writers and creators of texts, and the ways in which comparing texts can offer an enriched understanding of ideas, issues or themes. They use the features of written analysis and textual evidence soundly and appropriately, dealing in detail with the ideas encountered in the texts. They draft, revise, edit and refine for technical accuracy, and for clear, coherent and effective presentation of the insights gained through comparison.

2. Argument and Persuasive Language

In this area of study students focus on building on their understanding of argument and the use of persuasive language in texts that attempt to influence an audience. They develop an understanding of how texts are constructed for specific persuasive effects by identifying and discussing the impact of argument and persuasive language used to influence an audience. Students read, listen to, and view a range of texts that attempt to position audiences in a variety of ways. These include editorials, letters to the editor, opinion and comment pieces, reviews, speeches or transcripts of speeches, advertisements, essays, radio or television excerpts, cartoons and other forms of print and digital media.

They explore the use of language for persuasive effect and the structure and presentation of argument. They consider different types of persuasive language, including written, spoken, and visual, and combinations of these, and how language is used to position the reader. Students consider the contention of texts; the development of the argument including logic and reasoning, tone and bias; and the intended audience. Students consider how authors craft texts to support and extend the impact of an argument.

Students practise written analysis of the presentation of argument and the use of language to position the intended audience. They craft and present reasoned, structured and supported arguments and experiment with the use of language to position audiences. In developing an argument or analysis, they draft, revise and edit to clarify and critique their thinking, and for technical accuracy, coherence, persuasive effect and quality of evidence.

Students practise developing and presenting reasoned points of view on issues of contemporary social relevance. In constructing arguments students focus on the logical development of their own ideas, and select evidence and language to support their arguments. In addition to developing critical analysis of the use of language and the presentation of argument in texts, students practise presenting arguments and points of view in writing. They draft, revise and edit their writing to clarify and critique their thinking, and for precision and coherence in argument and quality of evidence.

They craft for persuasion using a range of language features intended to position an audience to share the point of view expressed. They use the features of texts appropriately and include accurate referencing and acknowledgment. In considering the presentation of arguments in oral form, students also learn about the conventions of oral communication for persuasive purposes. Students consider the persuasive impact of tone, diction and audience engagement in the presentation of a viewpoint. They practise their listening and speaking skills through discussion and debate, developing their own arguments and critiquing the arguments of others.

Hebrew

Although there are no prerequisites for entry into Units 1 and 2, it is assumed that students selecting LOTE (Languages Other Than English) Hebrew at Year Eleven will have some previous knowledge of the language.

Units 1-4 (i.e. Years Eleven and Twelve) are designed to enable students to use the Hebrew language to:

- conduct the practical aspects of everyday life;
- understand, establish and maintain relationships, increase their control over culturally-appropriate discourse forms;
- seek out and understand factual information conveyed orally, visually or in writing; interpret, evaluate and use information for a purpose;
- understand, describe, recreate and respond to events, emotions, ideas, opinions, values and beliefs; entertain themselves and others

The study is organised to enable students to:

- develop and refine receptive, productive and interactive use of the Hebrew language;
- increase their understanding of the systematic nature of the Hebrew language specifically, and of language in general;
- appreciate the views of others, and the ways of life, literature and thought in communities where the language is, or has been, widely used;
- acquire cognitive, affective and sociocultural skills which may also be transferable to other areas of learning;
- further develop self-awareness and sense of personal and cultural identity;
- prepare for a broader range of experiences in their future use of the Hebrew language and in social and cultural activities, including leisure, work and further study;
- Increase their awareness of the multilingual and multicultural nature of Australian and world societies.
- contribute to extending the social, cultural and economic resources of the community.

Legal Studies

Enthralling, captivating, mind-blowing - if you want a subject that will guarantee you something more than just a study score then Legal Studies is for you.

Many VCE subjects are difficult to apply to everyday life. Often the moment class finishes you find yourself thinking; “Well, what am I supposed to do with that?” After a class of Legal Studies you’ll find yourself thinking like an academic - having opinions on all sorts of domestic and foreign issues.

Legal Studies is about the way the law relates to and serves both individuals (you) and society (us). However, if you go deeper you’ll find that Legal Studies teaches you how to walk and talk confidently in society. If you let your mind free in this subject, I promise you, that no longer will you have nothing to say when it comes to law and politics on the dinner table. In fact, you’ll have so much to say that your family will be at pains trying to shut you up. I know mine were. Am I right for Legal Studies?

Legal Studies is not a pre-requisite for any university subject. Basically, there is no right or wrong person for this subject. But if you really want to get something out of Legal Studies you have to apply yourself in and out of class. In this subject, there is no right/wrong answer. Often it’s not what you know but what you can prove.

On the other hand, if you want to become a lawyer then this subject is obviously the one for you. Who cares that it doesn't have a huge scaling boost, if you get into law, or whatever your course may be, you'll have a huge edge over most students who chose to do maths or sciences just for scaling rewards.

Legal Studies is actually a subject that's enjoyable. You'll find that class will frequently be engaged in passionate discussion and spirited debate. This is a good thing, because even if you're not participating, they're so noisy that you won't be in danger of falling asleep. I must warn you though, brace yourselves; Legal Studies will inevitably mould you into a "thinking" student - constantly asking why? And how?

Law and Politics on the Dinner table

Are you sick of hearing Dad complain about stuff in the newspaper, CNN and "Today/Tonight"? Well, if you choose to ride this subject, the next time Dad says the government is taking Uncle Bob's house because they are building a power plant on the site you'll find yourself saying something like this: "Dad, under the Commonwealth Constitution of Australia Act (UK) 1901 - section 51 - sub section (XXXI) the government can only acquire property on "just terms". Tell Uncle Bob that he won't get in trouble if he tells them to get lost, because the Constitution allows people to have their say according to the Civil Rights Act. Now he has a range of options, he can either take them to court, or to an ADR (Alternative Dispute Resolution) avenue. The latter option will save time and money..."

Two hours later when you finish proving your case, you'll find that the table has been cleared, you're by yourself and it's nearly ten o'clock but at least Dad will know better next time and be more careful when he wants to talk law or politics at the dinner table.

There are 3 outcomes (SACs) each for Units 3 & 4.

In any of the Unit 3 (Making and Changing the Law) outcomes, you may be tested on (in any order):

- The role of Parliaments and courts
- The relationship between law-making bodies
- Changing the law

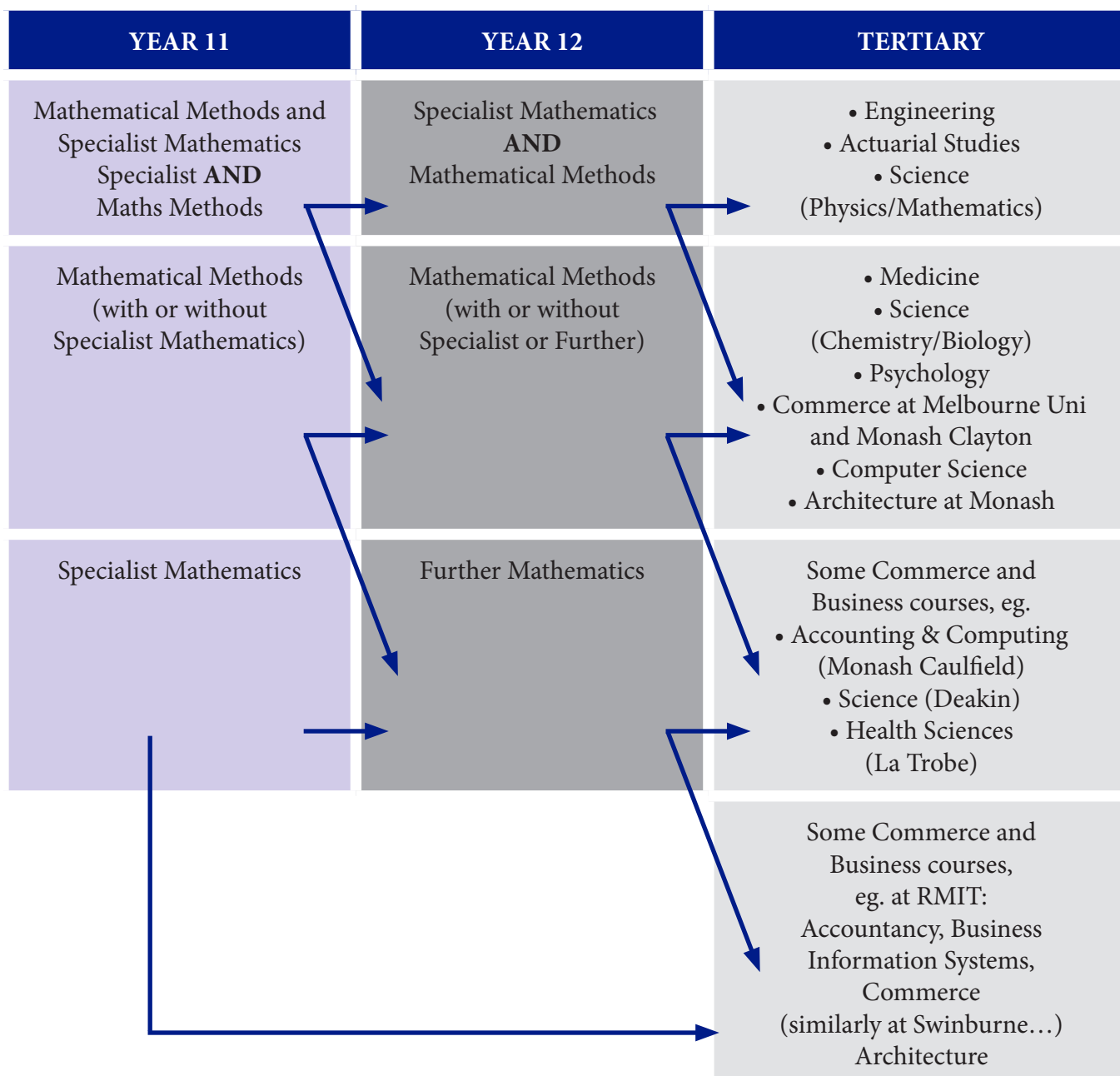
In any of the Unit 4 (Evaluation of the Legal System) outcomes, you may be tested on (in any order):

- The role of Parliaments and courts
- The relationship between law-making bodies
- Changing the law

Mathematics Units 1 - 4

Mathematics is a subject prized not only for its unique beauty but its ability to "stretch" the mind and develop powers of logical thinking. Accordingly, many University and TAFE courses require some form of Mathematics as a pre-requisite.

The following over-simplified diagram gives an approximate idea of some possible pathways into tertiary courses (note that there may be other conditions or pre- requisites which need to be satisfied before you gain entry to the course):



At VCE level we offer three Mathematics subjects:

1. Mathematical Methods (CAS),

Units 1 & 2 (MM 1 & 2)

The topics studied in Mathematical Methods are Functions and Graphs, Algebra, Rates of Change and Calculus, and Probability. Mathematical Methods 1 & 2 in Year 11 leads to Mathematical Methods 3 & 4 at the Year 12 level. Year 10 students will be given automatic recommendation for MM 1 & 2 if they achieve an average of 70% or more in the Year 10 exams.

2. (a) Specialist Mathematics

Units 1 and 2 (SM 1 & 2)

This unit involves the study of geometry, circle geometry, trigonometric ratios and applications, circular mensuration, co-ordinate geometry, complex numbers, vectors, calculus, kinematics, statics and dynamics.

Students are expected to apply techniques, routines and processes involving rational, real and complex arithmetic,

algebraic manipulation, diagrams and geometric constructions, solving equations and graph sketching as applicable, both with and without the use of technology. The appropriate use of technology to support and develop the learning of mathematics is to be incorporated throughout the unit. In particular, students are encouraged to use CAS calculators in the learning of new material and the application of this material in a variety of different contexts.

(b) Specialist Mathematics, Units 3 & 4

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

In Unit 4 this selection would typically consist of the remaining content from the 'Algebra', 'Calculus', and 'Vectors' areas of study and the content from the 'Mechanics' area of study.

3. (a) General Mathematics (Business) Units 1 & 2 (GMB 1 & 2)

The topics for this block provide the foundation for Further Mathematics, Units 3 & 4 (at Year Twelve). Year 10 students will be given automatic recommendation for GMB Units 1 & 2 if they achieve an average of 50% or more for the Year 10 exams.

(b) Further Mathematics, Units 3 & 4

Further Mathematics Units 3 and 4 are designed to be widely accessible. They provide general preparation for employment or further study, in particular where data analysis, recursion and number patterns are important. The assumed knowledge and skills for the Further Mathematics Units 3 and 4 are covered in specified topics from General Mathematics Units 1 and 2. Students who have done only Mathematical Methods Units 1 and 2 will also have had access to assumed knowledge and skills to undertake Further Mathematics but may also need to undertake some supplementary study of statistics content.

Further Mathematics consists of two areas of study

- a compulsory Core area of study to be completed in Unit 3 and
- an Applications area of study to be completed in Unit 4.

The Core comprises 'Data analysis' and 'Recursion and financial modelling'.

The Applications comprises two modules to be completed in their entirety, from a selection of four possible modules: 'Matrices', 'Networks and decision mathematics', 'Geometry and measurement' and 'Graphs and relations'.

The use of numerical, graphical, geometric, symbolic, financial and statistical functionality of technology for teaching and learning mathematics, for working mathematically, and in related assessment, is incorporated throughout each unit as applicable.

Please note:

Students wishing to study Units 3 & 4 of Mathematical Methods will benefit from studying General Mathematics (Specialist), Units 1 and 2. Students wishing to study Specialist Mathematics with Mathematical Methods at Year 12 must undertake General Mathematics (Specialist), Units 1 & 2, and Mathematical Methods, Units 1 & 2. Year 10 students will be given automatic recommendation for GMS 1 & 2 if they achieve an average of 80% or more in the Year 10 exams. At Year 12, Specialist Mathematics, Units 3 & 4, must be undertaken in conjunction with Mathematical Methods, Units 3&4. Students can undertake Mathematical Methods 3&4 (or Further Mathematics 3 & 4) as a stand-alone subject. Students may undertake both Mathematical Methods 3 & 4 and Further Mathematics 3 & 4 at Year 12 if they wish. Although students may complete all three Unit 3&4 Mathematics sequences, a maximum of two of these count in the top four subjects for ENTER calculations.

Physics

Physics is a natural science based on observations, experiments, measurements and mathematical analysis with the purpose of finding quantitative explanations for phenomena occurring from the subatomic scale through to the planets, stellar systems and galaxies in the Universe. In undertaking this study, students develop their understanding of the roles of careful and systematic experimentation and modelling in the development of theories and laws.

To undertake Year Eleven Physics, students must have passes in Mathematics and Science at the Year Ten level.

The Year Eleven course consists of Units 1 and 2.

UNIT 1: What ideas explain the physical world?

This unit consists of three areas of study.

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

Area of study 2: How do electric circuits work?

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

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

This unit consists of three areas of study.

Area of study 1 (core): How can motion be described and explained?

Area of study 2: Options

Students choose one of twelve options related to astrobiology, astrophysics, bioelectricity, biomechanics, electronics, flight, medical physics, nuclear energy, nuclear physics, optics, sound and sports science. The option enables students to pursue an area of interest by investigating a selected question.

Area of study 3: Practical investigation

Students design and undertake investigations involving at least one independent, continuous variable. A student-designed practical investigation relates to content drawn from Area of Study 1 and/or Area of Study 2 and is undertaken in Area of Study 3.

To proceed to Year Twelve Physics, students must obtain passes in Units 1 and 2.

The Year Twelve course consists of Units 3 and 4.

UNIT 3: How do fields explain motion and electricity?

Unit 3 consists of three areas of study.

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

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

Area of study 3: How fast can things go?

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

Unit 4 consists of three prescribed areas of study.

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

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

Area of Study 3: Practical investigation



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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.

Assessment Units 3 and 4

Percentage contributions to the study score in Physics are as follows:

- Unit 3 School-assessed Coursework: 21 per cent
- Unit 4 School-assessed Coursework: 19 per cent
- End-of-year examination: 60 per cent

VCE Physics provides for continuing study pathways within the discipline and leads to a range of careers. Physicists may undertake research and development in specialist areas including acoustics, astrophysics and cosmology, atmospheric physics, computational physics, education, energy research, engineering, instrumentation, lasers and photonics, medical physics, nuclear science, optics, pyrotechnics and radiography. Physicists also work in cross-disciplinary areas such as bushfire research, climate science, geology, materials science, and neuroscience and sports science.

Psychology

Staged implementation

The accreditation period for the revised study design for Units 1 and 2 begins 1 January 2016.

The accreditation period for the revised study design for Units 3 and 4 begins 1 January 2017.

Scope of study

VCE Psychology enables students to explore how people think, feel and behave through the use of a biopsychosocial approach. Students explore the connection between the brain and behaviour by focusing on several key interrelated aspects of the discipline: the interplay between genetics and environment, individual differences and group dynamics, sensory perception and awareness, memory and learning, and mental health.

An important feature of VCE Psychology is the opportunity for students to undertake a range of inquiry tasks both collaboratively and independently. Inquiry methodologies can include laboratory experimentation, observational studies, self-reports, questionnaires, interviews, rating scales, simulations, animations, examination of case studies and literature reviews. Students pose questions, formulate research hypotheses, operationalise variables, collect and analyse data, evaluate methodologies and results, justify conclusions, make recommendations and communicate their findings. As well as an increased understanding of scientific processes, students develop capacities that enable them to critically assess the strengths and limitations of science, respect evidence-based conclusions and gain an awareness of the ethical, social and political contexts of scientific endeavours.

Rationale

VCE Psychology provides students with a framework for exploring the complex interactions between biological, psychological and social factors that influence human thought, emotions and behaviour. In undertaking this study, students apply their learning to everyday situations including workplace and social relations. They gain insights into a range of psychological health issues in society.

Structure

The study is made up of four units:

Unit 1: How are behaviour and mental processes shaped?

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

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

Unit 4: How is wellbeing developed and maintained?

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

Unit 1: How are behaviour and mental processes shaped?

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.

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.

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

The nervous system influences behaviour and the way people experience the world. In this unit students examine the functioning of the nervous system to explain how a person can 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.

Unit 4: How is wellbeing developed and maintained?

Consciousness and mental health are two of many psychological constructs that can be explored by studying the relationship between the mind, brain and behaviour. In this unit, students examine the nature of consciousness and how changes in levels of consciousness can affect mental processes and behaviour. They consider the role of sleep and the impact that sleep disturbances may have on a person's functioning. Students explore the concept of a mental health continuum and apply a biopsychosocial approach 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.



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Assessment

Satisfactory completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's performance on assessment tasks designated for the unit.

Levels of achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Units 3 and 4

The Victorian Curriculum and Assessment Authority will supervise the assessment of all students undertaking Units 3 and 4. In the study of VCE Psychology the student's level of achievement will be determined by School-assessed Coursework as specified in the VCE Psychology study design and external assessment.

Percentage contributions to the study score in VCE Psychology are as follows:

- Unit 3 School-assessed Coursework: 16 per cent
- Unit 4 School-assessed Coursework: 24 per cent
- End-of-year examination: 60 per cent.

