

# YEAR 11 SUBJECTS - UNITS 1 & 2

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## BIOLOGY

This course studies all living organisms: plants, animals and microorganisms, in the context of how they interact with their living and non-living environments and the nature of the cells that build these organisms. Complex organisms, like animals and plants, are studied in relation to the structure and function of their organ systems, the specialisations of their cells and the mechanisms used to adapt to, and survive in, changing environmental conditions. Completion of both units is recommended before undertaking units 3 & 4.

## BUSINESS MANAGEMENT

- Unit 1: Small business management provides an opportunity for students to explore the operations of a small business and its likelihood of success.
- Unit 2: Communication and management: focuses on the importance of effective communication in achieving business objectives. Students investigate communication both internal and external to the business. They develop knowledge of aspects of business communication and are introduced to skills related to its effective use in different contexts.

## CHEMISTRY

- Unit 1 - Big Ideas of Chemistry: examines the periodic table, atomic theory and bonding.
- Unit 2 - Environmental Chemistry: focuses on water and the atmosphere, including quantitative chemical calculations.

## ENGLISH

When students study English they not only complete one of the compulsory VCE subjects, they also develop key reading and writing skills needed in most other academic areas and in everyday life. The course presents classical and contemporary books, plays, films from Australia and beyond. Students respond to these in written and oral form, in order to become confident, articulate communicators, able to coherently structure material, synthesize complex ideas, and critically analyse persuasive language used in arguments. Studying the mechanics of language supports this process. Ideally, studying English helps equip students for participation in a democratic society and the global community.

## FOUNDATION ENGLISH

The Foundation English course is designed for students who may require a more vocationally orientated approach to English or may be aiming to directly enter the workforce upon completing their post-compulsory secondary studies. It may also be suited to students who need additional time and assistance to strengthen and refine their literacy skills to support their study in VCE English/EAL, VCE Literature, or VCE English Language Units 1–4 and in other VCE studies.

## GEOGRAPHY

VCE Geography enables students to examine natural and human phenomena, how and why they change, their interconnections and the patterns they form across the Earth's surface. In doing so, they develop a better understanding of their own place and its spaces and those in other parts of the world. These spatial perspectives, when integrated with historical, economic, ecological and cultural perspectives, deepen understanding of places, environments and human interactions with these.

## HEALTH & HUMAN DEVELOPMENT

Unit 1 explores the health and individual human development of Australia's youth. Issues that impact on youth will be investigated. Unit 2 focuses on health and development during childhood, adulthood and issues facing the current healthcare system. The impact of a range of determinants including biological and behavioural factors, as well as physical and social environments will be explored in both unit 1 and 2.

## LEGAL STUDIES

This course provides an introduction to the need for, and the nature of law, through an examination of criminal and civil law. Learners will gain knowledge about the judicial system. Learners will also have the opportunity to observe a case being heard at either the County or Supreme Court.

## MATHEMATICS

### Foundation Mathematics

Foundation Mathematics provides for the continuing mathematical development of students entering VCE, who need mathematical skills to support their other VCE subjects, including VET studies, and who do not intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. Provision of this course is intended to complement General Mathematics and Mathematical Methods. It is specifically designed for those students who are not provided for in these two courses. Students completing this course would need to undertake further mathematical study in order to attempt Further Mathematics Units 3 and 4.

### General Mathematics

General Mathematics provides courses of study for a broad range of students and may be implemented in a number of ways. Some students will not study Mathematics beyond Units 1 and 2, while others will intend to study Further Mathematics Units 3 and 4. Others will also be studying Mathematics Methods Units 1 and 2 and intend to study Mathematical Methods Units 3 and 4 and, in some cases, Specialist Mathematics Units 3 and 4 as well. The areas of study for Unit 1 and Unit 2 of General Mathematics are 'Arithmetic', 'Data analysis and simulation', 'Algebra', 'Graphs of linear and non-linear relations', 'Decision and business mathematics' and 'Geometry and trigonometry'.

### Mathematical Methods

Mathematical Methods Units 1 and 2 are designed as preparation for Mathematical Methods Units 3 and 4. The areas of study for Unit 1 are 'Functions and graphs', 'Algebra', 'Rates of change and calculus' and 'Probability'. At the end of Unit 1, students will be expected to have covered the material outlined in each area of study given below, with the exception of 'Algebra' which should be seen as extending across Units 1 and 2. This material should be presented so that there is a balanced and progressive development of skills and knowledge from each of the four areas of study with connections among and across the areas of study being developed consistently throughout both Units 1 and 2.

## MEDIA

This course serves as an introduction to the study of the mass media. Unit 1 explores the nature and use of technology in the media, implications of changing technologies, the way the media constructs its view of teenagers, sport, celebrities and family. Unit 2 focuses on media production as a series of specialist stages and roles. It introduces students to a variety of productions and issues within the Australian media industry.

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## PSYCHOLOGY

These units introduce psychology as the scientific study of behaviour and mental processes.

- Unit 1: How are behaviour and mental processes shaped? Human development involves changes in thoughts, feelings and behaviours. In unit 1 we investigate the structure and functioning of the human brain and the role it plays in the overall functioning of the human nervous system. We explore concepts such as brain plasticity, brain damage and the complex nature of psychological development and relate this to classical and contemporary studies.
- 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. We investigate areas such as perception, illusions and distortions. We evaluate the role social cognition plays in a person's attitudes, perception of themselves and relationships with others as well as exploring a variety of factors and contexts that can influence the behaviour of an individual and groups.

## SOCIOLOGY

This is a broad ranging subject investigating human behaviour in social interactions, how societies are organized, and how they develop and change. Unit 1 focuses on the experiences of youth, definitions of family and how these have changed over time. Unit 2 explores different views on issues of concern in societies, such as divorce, crime and punishment. The impact of government policies on Australian society is considered throughout the course.

# Year 12 – Units 3 & 4

## BIOLOGY

- Unit 3 studies the cellular and molecular basis of living things, the regulation of biochemical processes in cells, and an organism's cellular and molecular responses to infectious agents.
- Unit 4 focuses on the structure and function of DNA, the nature of genes and genetic inheritance, how genetic engineering works, and the processes underlying biological evolution.

It is strongly recommended that learners complete units 1 & 2 Biology to gain a grounding in general biological principles and processes before undertaking this course.

## BUSINESS MANAGEMENT

This course examines the environment in which large scale organisations conduct their business and how the operations of the business are managed. Learners develop an understanding of the complexity and challenges of managing large scale organisations. There is a focus on the human resource management function, its key aspects and strategies used to most effectively manage human resources. The course concludes with an analysis of the management of change.

## CHEMISTRY

- Unit 3: chemical pathways, volumetric, gravimetric, spectroscopic and chromatographic techniques used to analyse chemical products are investigated. Organic chemical reaction pathways and their role in the formation of biomolecules, biofuels and medicines are introduced.
- Unit 4: chemistry at work, factors affecting the industrial production of chemicals are considered. Energy sources, and the energy changes associated with chemical reactions and electrochemical cells are explored.

## ENGLISH

When students study English they not only complete one of the compulsory VCE subjects, they also develop key reading and writing skills needed in most other academic areas and in everyday life. The course presents classical and contemporary books, plays, films from Australia and beyond. Students respond to these in written and oral form, in order to become confident, articulate communicators, able to coherently structure material, synthesize complex ideas, and critically analyse persuasive language used in arguments. Studying the mechanics of language supports this process. Ideally, studying English helps equip students for participation in a democratic society and the global community.

## HEALTH & HUMAN DEVELOPMENT

Unit 3 will focus on the health status of Australians, the impact of a range of determinants, and approaches taken to improve the health status of Australians. In unit 4 the concepts of global health, human development, sustainability and their interrelationships will be explored along with a range of strategies that are designed to promote health and sustainable human development globally.

## LEGAL STUDIES

This course is about the way the law relates to and serves both individuals and the community. Unit 3 is titled Law Making, and examines the role of our lawmakers and how individuals can influence change. Unit 4 looks at how disputes are resolved and involves an evaluation of our legal system.

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## LITERATURE

This course will appeal to learners who enjoy reading and would like to develop their reading and analytical skills further. The course includes opportunity for both creative and critical responses to texts. Novels, plays, short stories and poetry from different periods will provide rich material for study.

## MATHEMATICS

### Further Mathematics

The core part of this course involves the study of statistics, correlation, regression and time series. There are also three optional modules from Number Patterns, Geometry and Trigonometry, Graphs and Relations, Business Related Mathematics, Networks and Matrices. The course is not necessarily designed for those wishing to continue with tertiary mathematics, but as an aid to the mathematics used in other subject areas. Year 11 mathematics is necessary.

### Mathematical Methods

This course continues the study of functions and graphs, algebra, calculus, and probability undertaken in Units 1 & 2. It is strongly recommended that learners anticipating doing this course have a strong background in maths up to Year 11, particularly in algebra and Units 1 & 2 (or equivalent) are a prerequisite.

## MEDIA

The mass media plays a significant role in our society. This course examines the way our values and beliefs are shaped by the media and are reflected by it. In Unit 3, learners explore how story and production elements contribute to constructing narrative in feature films. Learners will also be involved in the design process of a production which they will undertake later in the course. In Unit 4 learners will produce a media product from the production design prepared in Unit 3. They will also study social values in media texts and discussions on the influence of the media.

## PSYCHOLOGY

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.

## SOCIOLOGY

This study explores expressions of culture and ethnicity in Australian society, together with the idea of community. In Unit 3 Australian indigenous culture is contrasted with the culture of migrant groups. It also offers a critical exploration of the historical suppression of Australian indigenous culture. Ethnicity is also studied as a key sociological category. Unit 4 focuses on the idea of community and how various forms of community are experienced.

## STUDIO ARTS

Studio Arts is designed to develop a range of studio skills, including formal aspects of art and design, the development and refinement of specialised skills to produce studio works, the ability to analyse and discuss studio work (your own and other people's), and an understanding of the visual arts industry. Learners will produce studio works and research related methods and practice.