



Rosehill  
Secondary College

TEN

2024

COURSE SELECTION HANDBOOK





# CONTENTS

Individual Course of Study for all Year 10 01

Curriculum Structure 02

Special Requirements 03

- The Arts 03

- Languages 03

- Languages Pathways 03

- Mathematics Pathways 04

- Science Pathways 05

Unit Descriptions 06

Core 06

English 1 & 2 06

English as an Additional Language (EAL) 06

Mathematics Foundation 1 07

Mathematics Foundation 2 07

Mathematics General 1 07

Mathematics General 2 07

Mathematics Advanced 1 08

Mathematics Advanced 2 08

Interdisciplinary Studies 08

Semester Electives 09

HUMANITIES 09

Geography 09

History 09

Legal Studies 09

Business and Economics 10

Philosophy 10

LANGUAGES 11

Italian 1 11

Italian 2 11

Destinazione Italia 11

Japanese 1 11

Japanese 2 12

Let's Discover Japan 12

SCIENCE 13

Advanced Science 1 13

Advanced Science 2 13

Practical Science 13

THE ARTS 14

Art 14

Extend Your Folio 14

Visual Communication Design 14

Media Studies 1 14

Media Studies 2 15

Drama 15

Dance 15

Classroom Music 15

PHYSICAL EDUCATION AND HEALTH 16

Health and Development 16

Outdoor and Environmental Studies 16

Sport and Recreation 16

Physical Education 16

Health Services 17

TECHNOLOGY 18

Food Technology 18

Advanced Food Technology 18

Materials Technology 19

Advanced Materials Technology 19

Fashion and Design Technology 19

Systems Technology 19

Advanced Systems Technology 20

Computer Applications and Programming 20

Advanced Computer Applications and Programming 20

Additional Electives 21

Trigonometry and Calculus 21

Literature 21

Introduction To Extended Investigation 21

Robotics 22

Unit Costs 23

# INDIVIDUAL COURSE OF STUDY FOR ALL YEAR 10

The central aim of the curriculum at Rosehill Secondary College is to improve student outcomes by building the knowledge and skills for life-long learning, social development and active and informed citizenship.

The Year 10 curriculum structure has been designed to reflect this aim by providing students with a broad, comprehensive academic program and opportunities to enhance their creative and practical aspirations. This includes an extensive elective program which provides students with flexibility whilst ensuring access to curriculum across all learning areas.

Each Year 10 student will study three core units, English, Mathematics and Interdisciplinary Studies, for two semesters, and eight semester-length elective units (four per semester) selected from the remaining learning areas - Science, The Arts, The Humanities, Health and Physical Education, Languages and The Technologies. All units of study run for 3 periods per week, with the exception of Interdisciplinary Studies which runs for 2 periods per week.

Conditions apply for the selection of semester-length electives. It is expected that all students complete units of study from each learning area. In exceptional circumstances, a student may request an exemption from completing a unit of study from a particular learning area. Strict criteria apply for such a variation and the student will require approval from the Middle School Leader in conjunction with the college Careers Advisor and relevant Learning Area Leader.

## ENHANCEMENT PROGRAM

Rosehill Secondary College offers the opportunity for high-achieving Year 10 students to commence their VCE studies early through the Enhancement Program. To be considered for the program, students must demonstrate a high level of academic achievement and work habits across all of their Year 9 studies. Demonstrated organisation skills, an ability to work independently, an ability to meet deadlines, and an excellent attendance and punctuality record are necessary prerequisites for students wishing to apply for the Enhancement Program. For students undertaking this sequence, the VCE subject will take the place of two semester-length elective units in Year 10.

# CURRICULUM STRUCTURE

## Year 10 Units of Study

Core	Semester Electives	VCE Units for recommended students
<ul style="list-style-type: none"> <li>• English</li> <li>• Mathematics</li> <li>• Interdisciplinary Studies</li> </ul>	<ul style="list-style-type: none"> <li>• English               <ul style="list-style-type: none"> <li>- Literature</li> </ul> </li> <li>Mathematics               <ul style="list-style-type: none"> <li>- Trigonometry and Calculus</li> </ul> </li> <li>• The Humanities               <ul style="list-style-type: none"> <li>- Geography</li> <li>- History</li> <li>- Legal Studies</li> <li>- Business and Economics</li> <li>- Philosophy</li> <li>- Introduction to Extended Investigation</li> </ul> </li> <li>• Languages               <ul style="list-style-type: none"> <li>- Italian 1</li> <li>- Italian 2</li> <li>- Destinazione Italia</li> <li>- Japanese 1</li> <li>- Japanese 2</li> <li>- Let's Discover Japan</li> </ul> </li> <li>• Science               <ul style="list-style-type: none"> <li>- Advanced Science 1</li> <li>- Advanced Science 2</li> <li>- Practical Science</li> <li>- Robotics</li> </ul> </li> <li>• The Arts               <ul style="list-style-type: none"> <li>- Art</li> <li>- Extend Your Folio</li> <li>- Visual Communication Design</li> <li>- Media Studies 1</li> <li>- Media Studies 2</li> <li>- Drama</li> <li>- Dance</li> <li>- Classroom Music</li> </ul> </li> <li>• Health and Physical Education               <ul style="list-style-type: none"> <li>- Health and Development</li> <li>- Outdoor and Environmental Studies</li> <li>- Physical Education</li> <li>- Sport and Recreation</li> <li>- Health Services</li> </ul> </li> <li>• The Technologies               <ul style="list-style-type: none"> <li>- Food Technology</li> <li>- Advanced Food Technology</li> <li>- Materials Technology</li> <li>- Advanced Materials Technology</li> <li>- Systems Technology</li> <li>- Advanced Systems Technology</li> <li>- Fashion and Design Technology</li> <li>- Computer Applications and Programming</li> <li>- Advanced Computer Applications and Programming</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Italian 1 &amp; 2</li> <li>• Environmental Science 1 &amp; 2</li> <li>• Physical Education 1 &amp; 2</li> <li>• Outdoor and Environmental Studies 1 &amp; 2</li> <li>• Business Management 1 &amp; 2</li> <li>• Geography 1 &amp; 2</li> <li>• History 1 &amp; 2</li> <li>• Art - Creative Practice 1 &amp; 2</li> <li>• Legal Studies 1 &amp; 2</li> <li>• Health and Human Development 1 &amp; 2</li> <li>• Psychology 1 &amp; 2</li> <li>• Accounting 1 &amp; 2</li> <li>• Visual Communication Design 1 &amp; 2</li> </ul>

Other VCE units will be considered on an individual basis.

All units of study run for 3 periods per week, with the exception of Interdisciplinary Studies which runs for 2 periods per week.

Conditions apply for the selection of semester-length electives. It is expected that all students complete units of study from each learning area. In exceptional circumstances, a student may request an exemption from completing a unit of study from a particular learning area. Strict criteria apply for such a variation and the student will require approval from the Middle School Leader in conjunction with the college Careers Advisor and relevant Learning Area Leader.

# SPECIAL REQUIREMENTS

## The Arts

### Dance, Drama, Performance Studies and Band

Students may be required to attend afternoon and weekend rehearsals in preparation for school performances.

### Visual Communication Design

Due to the digital nature of this subject, students will need to have the Adobe suite of programs loaded onto their laptop at the beginning of the semester. This will be provided free of charge by the College IT Department. Students are also required to have printing credit on their PaperCut accounts.

## Languages

The languages offered at Rosehill Secondary College are Italian and Japanese. Students study a languages unit each year from Year 7 to Year 10.

Students are required to study languages in a sequence from Year 7 to Year 10, so may not change their chosen language after Year 7, unless they are approved as having the required language skills by an appropriate language teacher.

Year 10 students are required to study at least one languages unit.

Students with plans to study a VCE Language at Year 11 and 12 must successfully complete two language units in Year 10 - either Year 10 Italian 1 and 2, or Year 10 Japanese 1 and 2. Where students have not met this requirement, but have some language background or have completed other studies in Italian or Japanese, they must sit an interview with their languages teacher to ascertain whether they will be permitted to study a VCE Language.

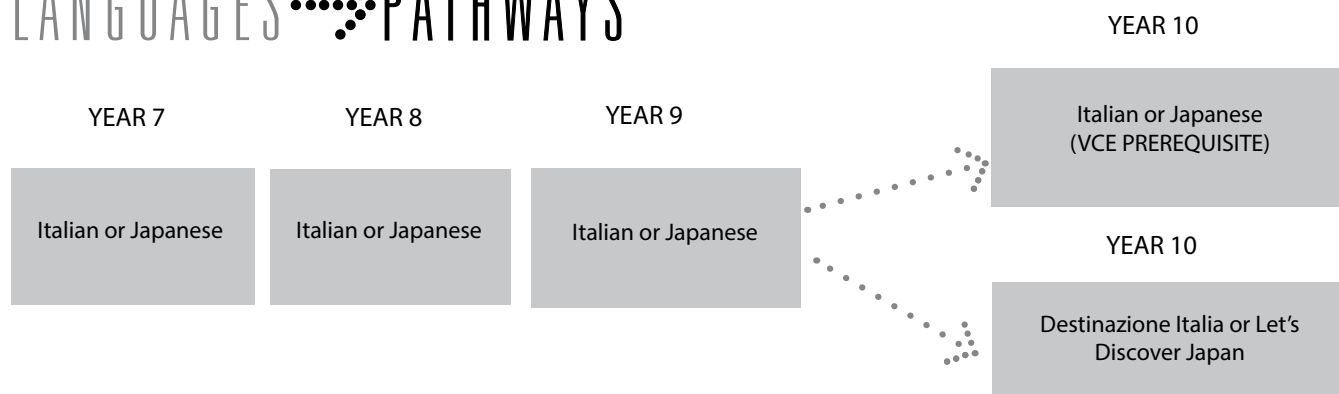
Students who do not wish to continue on to VCE Language may select either one or two language units at Year 10. Destinazione Italia and Let's Discover Japan are suitable for students who do not wish to study a VCE Language, however students may also select Italian 1 or Japanese 1.

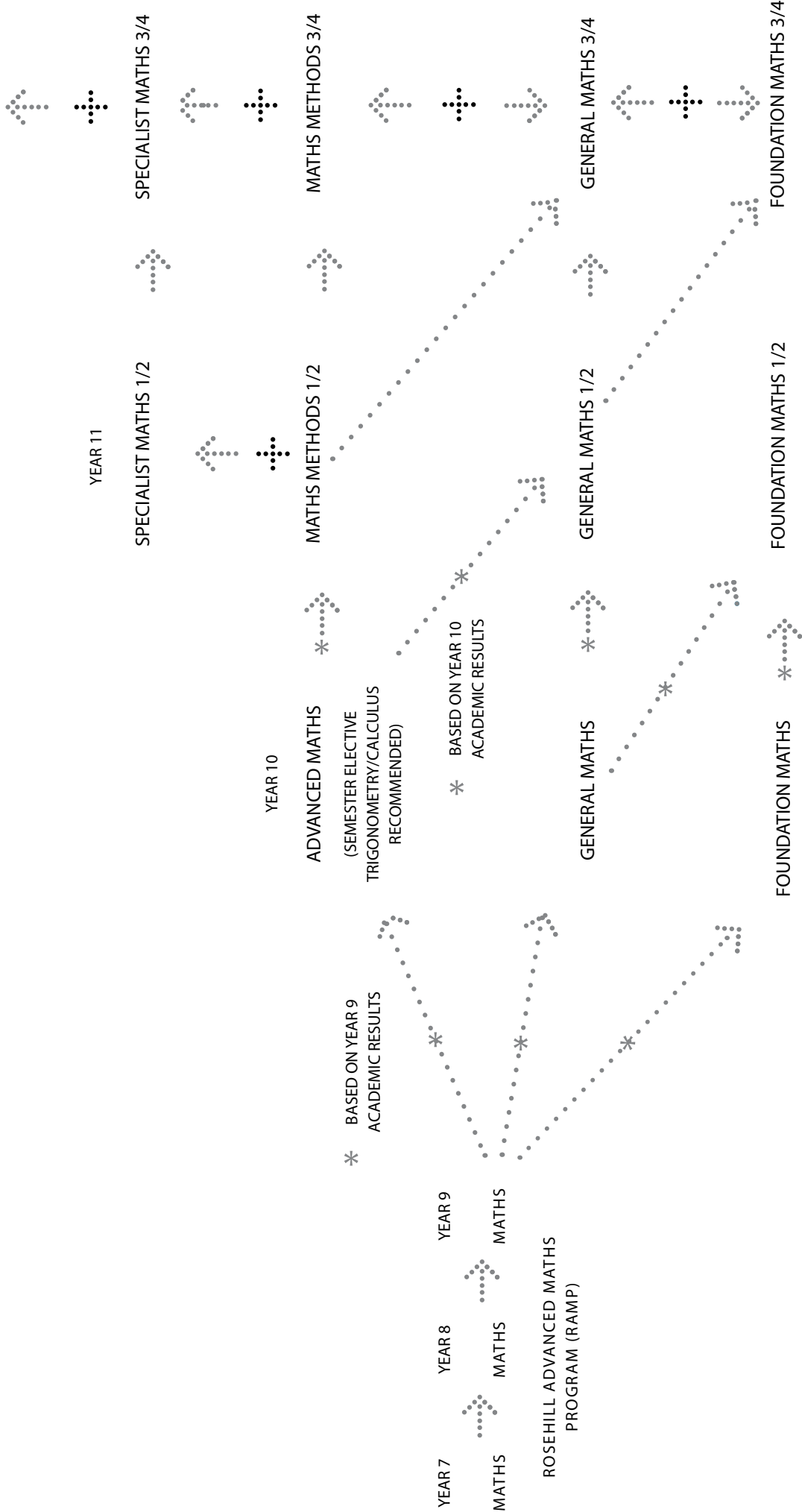
Students who are studying a language through the Victorian School of Languages (VSL) Centre may request an exemption from the Rosehill Year 10 Languages requirement. In this case, the student will undertake an additional unit from another learning area.

## Languages Overview Year 7 - 10

Year 7	Year 8	Year 9	Year 10
7 Italian	8 Italian	9 Italian	10 Italian 1 + 10 Italian 2 (leads to VCE Italian) 10 Destinazione Italia (does not lead to VCE Italian)
7 Japanese	8 Japanese	9 Japanese	10 Japanese 1 + 10 Japanese 2 (leads to VCE Japanese) 10 Let's Discover Japan (does not lead to VCE Japanese)

## LANGUAGES PATHWAYS





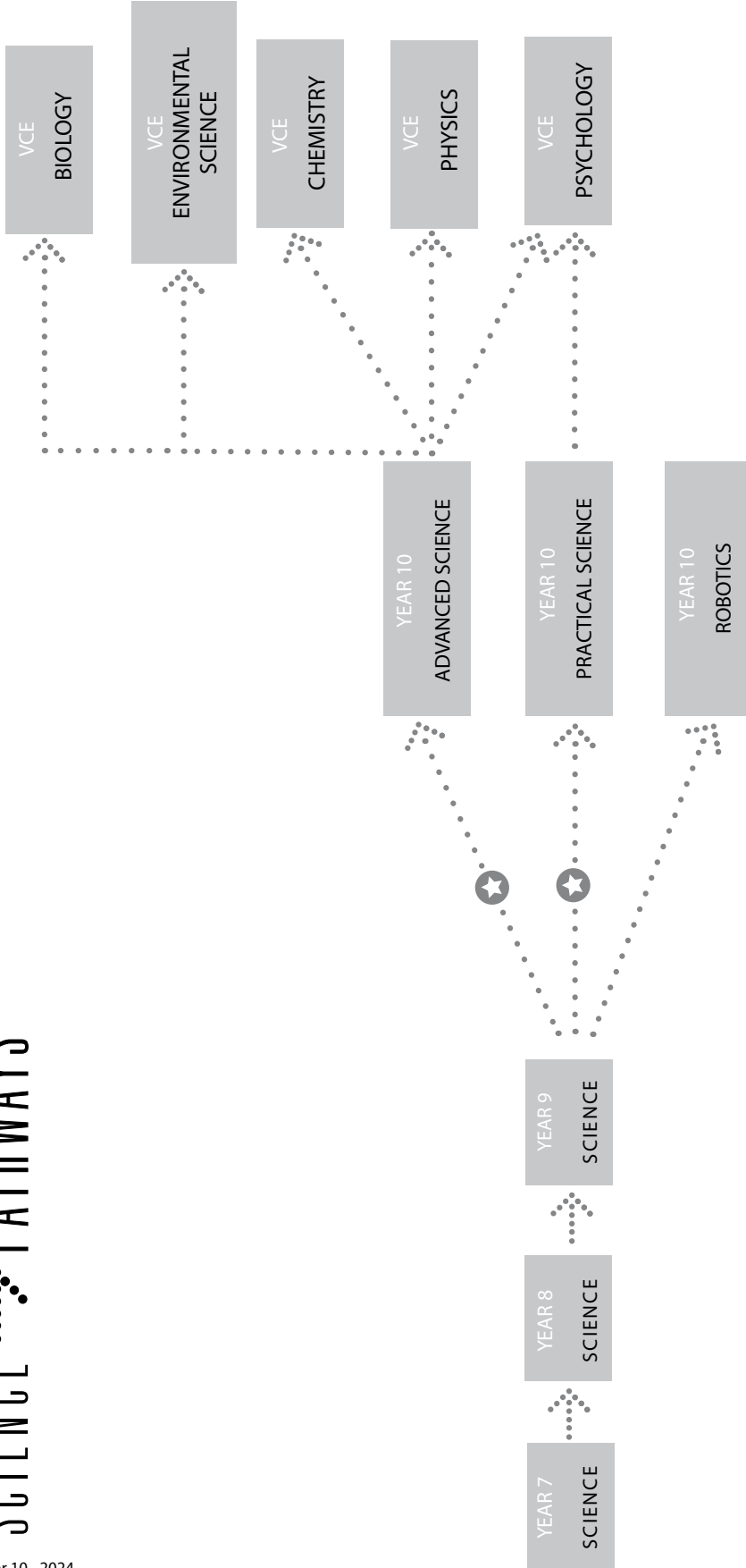
\* YEAR 9 ACADEMIC RESULTS IN TESTS, EXAMS AND NAPLAN WILL BE USED TO DETERMINE ENTRY INTO YEAR 10 MATHEMATICS CLASSES.

\* YEAR 10 ACADEMIC RESULTS IN TESTS, EXAMS AND APPLICATION TASKS WILL BE USED TO DETERMINE ENTRY INTO YEAR 11 MATHEMATICS CLASSES.

STUDENTS MAY ELECT TO STUDY NO MATHS AT YEAR 11

STUDENTS MAY ELECT TO STUDY NO MATHS AT YEAR 12

# SCIENCE PATHWAYS



★ Year 9 academic results in assignments, practical investigations, tests and exams will be used to determine which stream of science you can complete at Year 10.

Note: You need to be recommended by your Science teacher to study VCE Biology in Year 10.



# CORE UNIT DESCRIPTIONS

## ENGLISH 1 & 2

In Year 10 English, students read and respond to a variety of texts, analysing and comparing their ideas, structure, and language features. They evaluate other interpretations of text and use appropriate evidence to justify their own interpretations. Students use the set texts as models in the development of their own individual style, and are given opportunities to refine their own work, seeking and then acting on feedback to further their skills. Students are required to demonstrate a sound understanding of grammar, an ability to vary vocabulary choices for impact, and accurately use spelling and punctuation when creating and editing their writing. Students are also expected to contribute to class discussion, building on others' contributions in a meaningful way, as well as present more formally to an audience. In writing and in presentations, students should demonstrate an understanding of argument and be able to use and analyse language choices for persuasion. Students are assessed on the Victorian Standards: Reading and Viewing, Writing, Speaking and Listening.

### **School Assessed Coursework**

- Text Response
- Writing and Language Development
- Using Language to Persuade
- Exam

## ENGLISH AS AN ADDITIONAL LANGUAGE (EAL)

Secondary EAL students enter school in Australia with a diverse range of educational backgrounds and prior experience with English. Many will be encountering English for the first time. Others will have studied English in their primary or secondary schooling in their country of origin.

Some may have had no schooling related to their first language in written form. These students first need to acquire oral English and basic literacy in English, and will be assessed in Level C1 before moving to Level C2, C3 and C4. EAL teachers report that many of these students acquire oral English very quickly, because of the different aural and memory capacities they have developed through growing up without access to the written word.

### **School Assessed Coursework**

- Text Response
- Writing and Language Development
- Using Language to Persuade
- Oral Communication

## MATHEMATICS (FOUNDATION) 1

This unit covers content from the 'Number and Algebra' and 'Measurement and Geometry' strands of the Victorian Curriculum. Students work between Levels 7 to 9 of the Victorian Curriculum, and their pathway may continue onto Year 11 Foundation Mathematics in VCE.

Number – Students cover fractions, decimals and percentages, and their use in practical contexts.

Pythagoras and Trigonometry – Students use Pythagoras' Theorem and trigonometric ratios to solve problems in practical contexts.

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## MATHEMATICS (FOUNDATION) 2

This unit covers content from the 'Number and Algebra', 'Measurement and Geometry' and 'Statistics and Probability' strands of the Victorian Curriculum. Students work between Levels 7 to 9 of the Victorian Curriculum, and their pathway may continue onto Year 11 Foundation Mathematics in VCE.

Statistics and Probability – Students use a range of techniques to display and analyse univariate data.

Financial Mathematics – Students study salaries, wages and simple interest and their application in real world contexts.

Measurement – Students cover conversion of units, perimeter, area and volume of simple shapes and their use in practical contexts.

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## MATHEMATICS (GENERAL) 1

This unit covers content from the 'Measurement and Geometry' and 'Number and Algebra' strands of the Victorian Curriculum. Students will complete the following topics:

Number – Students explore Index Laws.

Measurement – Students explore total surface area and volume of composite solids.

Algebra – Students expand and factorise binomial expressions.

Financial Maths – Students explore salaries and wages, simple and compound interest, inflation and taxation.

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## MATHEMATICS (GENERAL) 2

This unit covers content from the 'Measurement and Geometry', 'Statistics and Probability' and 'Number and Algebra' strands of the Victorian Curriculum. Students will complete the following topics:

Pythagoras and Trigonometry – Students use Pythagoras' Theorem and trigonometric ratios to solve problems in practical contexts including bearings and angle of depression and elevation.

Geometry – Students explore and apply congruence and similarity of shape.

Algebra – Students graph linear equations and inequalities and solve linear equations, inequalities and simultaneous equations.

Statistics – Students use a range of techniques to display and analyse univariate data, including box plots and cumulative frequency curves.

Matrices and Networks – Students determine the type and order of matrices and use that knowledge to make decisions with networks.

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## MATHEMATICS (ADVANCED) 1

This unit covers topics taught in Mathematics (General) as well as:

- Surds and rationalising surds
- Completing the square to solve quadratic equations
- Rational indices
- Exponential graphs and equations
- Logarithmic graphs and equations
- Sketching circles, hyperbolas and regions of plane
- Permutation and combination

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## MATHEMATICS (ADVANCED) 2

This unit covers topics taught in Mathematics (General), excluding Financial Mathematics, as well as:

- Logarithmic laws
- Operations on Polynomials
- Remainder theorem and factor theorem
- Sketching polynomials
- Functions and inverse functions
- Trigonometric ratios of any size angle
- The sine and cosine rule
- Direct and inverse variation
- Statistics with bivariate data, time series and line of best fit

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## INTERDISCIPLINARY STUDIES

As Year 10 students near voting age, they spend the first term exploring our democratic system of government, understanding how laws are made and disputes resolved. Students develop their capacity to have their voices heard by researching a contemporary issue and then forming a 'political party' and creating a campaign for change. Students run their 'preselection' campaign, following which the 'preselected parties' compete for political victory in a vote counted in front of the year level, according to the preferential system.

In preparation for pathways beyond school, students consolidate careers work commenced in Year 9. They complete Safe@Work certificates and attend Success Integrated and Bully Zero WorkSafe presentations before undertaking two weeks of work experience. They actively explore potential careers and are supported with VCE subject selection. They participate in programs run by Elevate Education to maximise the effectiveness of their learning.

A range of social issues are also comprehensively addressed. Students participate in the Respectful Relationships program, created by the Victorian government, which addresses topics including positive self-talk and safer socializing. They take part in professionally run evidence-based workshops, empowering them to make informed decisions relating to sexual relationships and inclusivity. As young people gaining independence, they listen to guest speakers and participate in activities to learn about contemporary issues surrounding the coward's punch, First Nations Peoples, and road safety. Finally, they participate in a Peer Support program to prepare them to be Year 11 Leaders who deliver a program to support incoming Year 7 students.

### School Assessed Coursework

- Research assignments
- Campaign for change
- Safe@Work Certificates
- Career plan
- Reflections

# ELECTIVE UNIT DESCRIPTIONS - HUMANITIES

## GEOGRAPHY

This unit focuses on environmental values and human and natural influences causing environmental change. Students investigate the natural landscape and management strategies that may lead to a more sustainable future. Students analyse human wellbeing in various regions of the world and investigate different ways of measuring and mapping human wellbeing and development, and how these can be applied to measure differences between places. They investigate the factors that influence a country's level of human wellbeing. Students investigate issues affecting the development of places and their impact on human wellbeing. Topics include Disease, Conflict and Gender at a local and global scale.

Students focus and investigate causes and consequences of environmental change and look at environmental, economic and technological factors that influence environmental change and human responses to its management. There is also a focus on the impacts humans have on the environment.

Students use digital data and a variety of maps to analyse the physical and human impact on our world. They will continue to develop skills in selecting, organising and representing data and information in different forms.

### School Assessed Coursework

- Fieldwork Report
- Research Project
- Work Portfolio
- Exam

## HISTORY

In Year 10 History, students study a history of the modern world and Australia in its global context from 1918 to the present through two depth studies: World War Two, and Rights and Freedoms. They extend their knowledge and assess the impact of changing government policies and world events on Australia's national identity and its international relationships. Students examine Indigenous Australian history and explore the process of reconciliation. They learn to apply the following historical concepts and skills to historical knowledge: sequencing chronology, using and evaluating historical sources as evidence, identifying continuity and change, analysing cause and effect and determining historical significance.

### School Assessed Coursework

- Assignments
- Unit Tests
- Exam

## LEGAL STUDIES

In Year 10 Legal Studies, students are introduced to knowledge and skills to support future studies in VCE Legal Studies. Students learn the rudiments of civil and criminal law, understanding the processes by which our system attempts, however imperfectly, to deliver justice. Students consider Australia's political system and examine ways political parties and other groups influence government and decision-making processes. They compare aspects of Australia's and Indonesia's systems of government. They investigate features and principles of Australia's court system, including its role in applying and interpreting Australian law. They investigate the values and practices that enable a democratic society to be sustained. Students are required to maintain a well set-out workbook, complete a number of assignments and tests as well as sit an end of semester exam.

### School Assessed Coursework

- Research Assignment: Constitutional Change
- Unit Test - Australian Democracy
- Criminal and Civil Law Case Studies
- Exam

## BUSINESS & ECONOMICS

In Year 10 Business and Economics, students explore the nature of innovation and examine how businesses seek to create and maintain a competitive advantage in the market. They identify the ways enterprising behaviours and capabilities can be developed to improve work and business environments, and analyse the reasons why and how the work environment is changing. Students identify and explain the indicators of economic performance and examine how Australia's economy is performing. They explore the links between economic performance and living standards, including the variations that exist within and between economies, and give reasons for the possible causes of variations

### **School Assessed Coursework**

- Business Assignment
- Economics Assignment
- Unit Test – Economics
- Exam

## PHILOSOPHY

This unit will focus on exploring essential questions such as:

1. What is the mind?
2. What is real?
3. What is right or wrong?

Students will study various philosophers, such as Satre, Kant and Mills, who have contributed various answers to these questions. Additionally, students will have the opportunity to develop their own ideas about reality, the mind and ethics. Human Rights philosophy will also be a major focus of study as students explore different human rights documents and develop an informed and reasoned evaluation of them.

### **School Assessed Coursework**

- Essay on Existentialism
- Ethics Assignment
- Mock Bill of Rights
- Exam

## ITALIAN 1

This unit is an extension of Year 9 Italian. Students wishing to continue to VCE Italian must complete this unit. Students will expand their knowledge of Italian grammar and enhance their reading, writing, listening and speaking skills. It is expected that the students will use more of the target language in the classroom and develop more general conversation and survival skills in their second language. Students will be able to further develop their writing skills and expand their research skills in Italian. Grammar will be taught in a more formal way. Students will be involved in presentations such as producing materials and performing short role-plays. Topics covered will include My Personal World, Weather and Seasons, Healthy Lifestyles and Festivals. Students will also study aspects of Italian History, Geography and Culture such as Celebrations, Regions and Cities of Italy, and an Italian Film Study.

### School Assessed Coursework

- Listening and Reading Comprehension Tests
- Speaking Tasks
- Writing Folio
- Exam

## ITALIAN 2

This unit is designed for students who have completed all four core units of Italian and may wish to continue to VCE Italian. Students will be encouraged to further develop their knowledge of the Italian language by exploring the Italian media and studying Italian film. It is envisaged that there will be an increased use of the Italian language in the conduct of classroom lessons and more formal grammar learning, as the students undertaking this unit will have a reasonable proficiency and grasp of the Italian language. Themes covered will include Youth and Leisure, Travelling in Italy, and Communication and Social Media. Students will acquire sophisticated language for writing essays, reading documents and itineraries, planning an event and expressing opinions. Italian culture will also be studied, for example Italian Migration, Italian Music, and Cinema and Entertainment.

### School Assessed Coursework

- Listening and Reading Comprehension Tests
- Speaking Tasks
- Writing Folio
- Exam

## DESTINAZIONE ITALIA

This unit is for Year 10 students who are not preparing for VCE studies in Italian. Students will further develop their listening, reading, speaking and writing skills. The course will review simple grammatical structures as well as extend vocabulary for using the language in everyday situations. Students will be able to negotiate some activities such as planning a lunch, producing their own materials, performing short role-plays and/or making short digital stories. Topics covered will include Weather and Seasons and Healthy Lifestyles. Students will also study aspects of Italian History, Geography and Culture such as Celebrations, Regions and Cities of Italy, and Italian Film Studies.

### School Assessed Coursework

- Listening and Reading Comprehension Tests
- Speaking Tasks
- Writing Folio
- Exam

## JAPANESE 1

This unit is an extension of Year 9 Japanese. Students who feel confident in reading and writing hiragana and katakana should choose this unit. Students wishing to continue to VCE Japanese Second Language must complete this unit. Students will expand their knowledge of Japanese grammar and enhance their reading, writing, listening and speaking skills. It is expected that the students will use more of the target language in the classroom and develop more general conversation and survival skills in Japanese. Students will be encouraged to further develop their knowledge of the Japanese language by studying the following topics: Milestone events, Nationalities, Fast food, Shopping and Leisure activities. More kanji scripts will be introduced.

### School Assessed Coursework

- Listening and Reading Comprehension Tests
- Speaking Tasks
- Writing Tasks
- Exam

## JAPANESE 2

This unit is designed for students who have completed Japanese 1 and may wish to continue to VCE Japanese Second Language. Students will be encouraged to further develop their knowledge of the Japanese language through the following topics: City and country, School trips, Part-time work, Careers and aspirations and Home-stay. It is envisaged that there will be an increased use of the Japanese language in the conduct of classroom lessons and more formal grammar learning, as the students undertaking this unit will have a reasonable proficiency and grasp of the Japanese language. More kanji scripts will be introduced.

### **School Assessed Coursework**

- Listening and Reading Comprehension Tests
- Speaking Tasks
- Writing Tasks
- Exam

## LET'S DISCOVER JAPAN

This unit is for Year 10 students who are not intending to take further Japanese classes for the VCE. Students will learn about the culture of Japan through film with a focus on the topic of families or other areas of student interest arising from the films viewed. The culture study will assist with concepts in the subjects of English, Humanities, Media Studies as well as assist students to understand the place of culture and language in the world, empowering students to become effective global citizens. Students will consolidate their Year 9 Japanese language skills of reading, writing, listening and speaking. They will extend their Japanese vocabulary and practise their hiragana skills from the films being studied. By the end of this unit, students will have written an essay on culture, read texts from people introducing their families using the language to show the in-group, written using terms for the out-group of other peoples' families, and spoken about their own families or ideal families in a culturally appropriate way.

### **School Assessed Coursework**

- Listening and Reading Tests
- Writing and Speaking Japanese
- Intercultural Studies Essay
- Exam

Year 10 Advanced Science 1 and Advanced Science 2 must be completed in order to study any Science subject in VCE, with the exception of VCE Psychology. VCE Psychology may be accessed via a Year 10 Advanced Science pathway or a Year 10 Practical Science pathway.

## ADVANCED SCIENCE 1 (FOR ALL VCE SCIENCES)

**Motion** – Students will describe the relationships between force, mass, acceleration and velocity using quantitative data. Students will also study how Newton's three laws of motion apply in practical and theoretical situations.

**Heredity** – Students will study the mechanism and modes of inheritance of traits and how they can be traced in families using pedigrees. They will also investigate how mutations occur in DNA and influence an organism by altering genes.

**Periodic Table** – Students will learn how atoms are grouped on the periodic table based on similar properties. They will be able to infer a significant amount of chemical information off the periodic table.

### School Assessed Coursework

- Assignments
- Unit Tests
- Practical Work
- Exam

## ADVANCED SCIENCE 2 (FOR ALL VCE SCIENCES)

**Evolution** – Students evaluate the theories and evidence concerning the evolution of organisms. They also describe advances in technology, which have led to further evidence for evolution.

**Chemical Reactions** - Students identify the different types of chemical bonding that occur during chemical reactions. They conduct a practical investigation that tests the factors that affect the rate of a chemical reaction.

**Electricity and Motors** - Students study how electric circuits, electricity and magnetism are fundamentally related and explain how the interaction between a changing magnetic field and a coil can be used to generate electricity.

**Evolution and Features of the Universe** – Students study and understand that the universe contains features including galaxies, stars and solar systems and that the Big Bang theory can be used to explain the origin of the universe.

### School Assessed Coursework

- Assignments
- Unit Tests
- Practical Work
- Exam

## PRACTICAL SCIENCE

Year 10 Practical Science is designed for students who do not wish to study a Science subject in VCE, with the exception of VCE Psychology which may be selected at VCE by students who have successfully completed Year 10 Practical Science or Year 10 Advanced Science.

**Forensic Science** - Students will undertake a range of practical tasks that explore some of the techniques used by forensics scientists to recover evidence from a crime scene. Students examine techniques such as, fingerprinting, chromatography, blood analysis and blood spatter analysis.

**Practical Chemistry** - through a series of practical experiments, students gain an understanding of the nature of different types and applications of chemical reactions.

**Motion** – Students will investigate practical applications of the Laws of Motion, including car-crash scene investigations and car safety features.

**Psychology**- Students will gain an understanding of both the scientific study of human behaviour through biological, psychological and social perspectives and the application of this knowledge to personal and social circumstances in everyday life.

### School Assessed Coursework

- Assignments
- Unit Tests
- Practical Work
- Exam



## ART

Students will learn about a selection of art-making forms such as drawing, painting, collage, mixed media, and photography. They will investigate the work of artists from a variety of eras and places and will continue to use their folio to document their research and develop skills. Students will analyse and interpret the messages that are communicated within artworks from different cultural, historical and social contexts. They will explore, experiment and express ideas, concepts and themes. They will develop skills by selecting, applying and manipulating techniques, technologies and processes. Students select this subject as a precursor to Year 10 Extend Your Folio, VCE Art – Creative Practice, or VCE Art – Making and Exhibiting.

This subject should be selected by (but is not restricted to) students who intend on studying Art at VCE level. It can be selected in addition to, or instead of, Year 10 Extend Your Folio.

### School Assessed Coursework

- Folio
- Art Literacy
- Final Presentations
- Exam

## EXTEND YOUR FOLIO

Students will learn a selection of art-making techniques that build upon and extend their existing art knowledge and skills. In Extend Your Folio, students may choose their own mediums they wish to experiment with. They will investigate the work of artists from various cultures and will continue to use their folio to document their research and development of skills. Students will continue to explore and experiment with their own ideas, concepts and themes and are given the opportunity to trial 2D and 3D materials. Students will create, exhibit, and analyse artworks, and consider the intention of artists and curators. They will examine artworks in historical and cultural contexts. Extend Your Folio is a subject which allows students to develop, refine and extend skills in preparation for VCE Art – Creative Practice and VCE Art – Making and Exhibiting.

### School Assessed Coursework

- Folio
- Art Literacy
- Final Presentations
- Exam

## VISUAL COMMUNICATION DESIGN

Students further develop their drawing and rendering skills, learning how to depict different materials and draw from observation. They learn how to produce a range of technical drawings associated with Environmental (buildings and spaces) design. Students continue to develop their understanding of the elements and principles, using this knowledge to discuss and analyse designs from different times and places. They work through a thorough process, developing and refining ideas to produce an environmental design focusing on target audience and context. All work is documented in their folio.

Some work in this subject is undertaken on student laptops using Adobe Illustrator (supplied by the school), so a laptop and printing credit are essential requirements.

### School Assessed Coursework

- Folio
- Design Literacy
- Final Presentations
- Exam

## MEDIA STUDIES 1 – FILM AND PHOTOGRAPHY

This subject will provide students with the opportunity to develop skills in the use of video and photographic equipment to plan and create a range of media products that explore storytelling techniques to engage audiences. Students will experiment with a range of photographic, lighting and image manipulation equipment and techniques to build a folio of their photographic work. Individually and collaboratively, students will create several short video productions. Students will study the use of media codes and conventions across several film genres, and examine the role that films play in the communication of ideas within a society.

### School Assessed Coursework

- Media Production Film Project
- \* Media Production Photography Project
- Media Analysis Tasks
- Digital production Journal
- Exam

## MEDIA STUDIES 2

This unit will only run in Semester 2. To choose this unit students must have EITHER completed a media subject in Year 9 OR enrol in Media Studies 1 in Semester 1.

Media Studies 2 builds upon and extends students' existing Media Studies knowledge and skills. Students will apply their knowledge of media production principles in order to create a number of short films and photographic productions that suit a range of purposes, contexts, audiences and styles. Students will look at the ways that their own and others' media products communicate and challenge ideas and meaning. Students will also study the relationship between the media and audiences through the discussion of topics such as censorship, violence in the media and the role that new technologies have played in changing the way people create, distribute and access the media.

### School Assessed Coursework

- Media Production Film Project
- Media Production Photography Project
- Media Analysis Tasks
- Digital Production Journal
- Exam

## DRAMA

This unit aims to build upon the drama skills students learnt in the previous drama unit as well as prepare students for VCE Drama. The unit will concentrate on performance and analysis of performance. It aims to engage students in active learning and build students' confidence. Students will concentrate on eclectic performance styles, from a wide variety of social, political, historical and cultural stimulus, and devise individual and group performance. Students will have the opportunity to see a professional theatre performance and learn to analyse the production.

### School Assessed Coursework

- Group Performance
- Theatrical Styles Research
- Performance Analysis
- Exam

## DANCE

In Year 10 dance, students continue to develop the skills, technique and collaborative processes that began in younger years. The students are encouraged to enhance their exploration of movement through a series of improvisation tasks that enable the student to discover new themes, ideas and concepts related to dance making. Students will independently research a dance style, its history and technique unique to this style. As part of their assessment, they will teach a short sequence to the rest of their class. As a result, students are exposed to learning a wide variety of dance styles, as well as enhancing their communication and leadership skills. Students are then asked to develop their own personal style and movement vocabulary in a solo assessment dance work, and collaborate with a small group in creating another short dance piece.

### School Assessed Coursework

- Group Work
- Research Project and Presentation
- Solo
- Learnt Work
- Exam

## CLASSROOM MUSIC

In Year 10 Music students are introduced to knowledge and skills that support future studies in VCE Music. Students are required to demonstrate their understanding of performance through solo and group pieces on their chosen instrument. They identify challenges in their performance works and prepare a technical assessment demonstrating how chosen scales and exercises will help them achieve security in their works. Students are required to analyse the elements of music and key theory skills throughout the semester and demonstrate understanding of the characteristics of a lullaby through arranging while also composing their own piece typical of an 'Australian' sound.

It is compulsory for all students in this unit to be involved in a school ensemble and are taking lessons on their chosen instrument, with at least two years practice on it prior to commencing the unit.

### School Assessed Coursework

- Technical Work
- Performance
- Composition
- Exam

# PHYSICAL EDUCATION AND HEALTH

## HEALTH AND DEVELOPMENT

Those students who are considering VCE Health and Human Development are strongly encouraged to undertake this unit. The course explores health and human development at an individual level, within the family, community and around the globe. This unit aims to increase students' confidence, self-esteem and leadership qualities whilst building a solid foundation for VCE Health and Human Development.

Studies include:

- Dimensions of Health and Wellbeing
- Development through the Lifespan
- Anatomy and Physiology
- Global Health
- Australia's Health Care System
- Health Status

### School Assessed Coursework

- Health Test/s
- Sociocultural Factors Assignment
- Health Issues Assignment
- Exam

## OUTDOOR AND ENVIRONMENTAL STUDIES

Those students who are considering VCE Outdoor and Environmental Studies are encouraged to undertake this unit. Students will have the opportunity to explore a variety of safe outdoor environments that promote fun, challenging and educational experiences. This unit emphasises environmental awareness, safety, teamwork and the development of individual confidence, self-esteem and leadership qualities. The course will teach the necessary skills required for students to successfully participate in a variety of excursions and at least one camp at the end of semester. Due to the activity-based nature of this program, the subject cost for the semester is in excess of \$500.

Studies include:

- Initiatives
- Rock climbing
- Snorkelling
- Basic First Aid
- Leadership Skills
- Map Reading and Navigation Skills
- Compass Skills
- Bushwalking
- Paddling
- Camping Skills
- Minimal Impact Skills

### School Assessed Coursework

- Completion of Theory Tasks and Workbook
- Skill Development
- Major and Minor Assessment Tasks
- Exam

## SPORT AND RECREATION

This unit is designed for students who have an interest in the sport and recreation industry. It recognises the passion and enthusiasm for sport and recreation which, for many, has become an important element of our national identity. Students will have the opportunity to participate in practical activities, including 2-3 excursions/incursions, in addition to exploring a variety of aspects of the industry.

Studies Include:

- Sports management
- Sports marketing
- Sports and disabilities
- Event management
- Coaching
- Recreation activities
- Sport and Recreation careers

### School Assessed Coursework

- Unit Tests
- Assignments
- Practical work
- Exam

## PHYSICAL EDUCATION

Those students who are considering VCE Physical Education are strongly encouraged to undertake this unit. The topics of anatomy, physiology, body systems, training principles and sport science are examined using both practical and theoretical activities. The objective of this unit is to give students confidence and a basis to achieve great results in VCE Physical Education.

This unit incorporates the following sports as part of an integrated learning program:

- Volleyball
- Tennis
- Baseball
- Basketball
- Golf
- Table Tennis
- Weight Training
- Hockey
- Netball
- Football

### School Assessed Coursework

- Musculoskeletal Test
- Cardiorespiratory Test
- Sport Science Assignment
- Exam

## HEALTH SERVICES

Health Services provides students with the knowledge and skills that will enhance their employment prospects in the Health industry. The subject describes the skills and knowledge required to recognise and promote ways to maintain a healthy functioning of the human body. Students will learn how to respond to behaviours of concerns while managing behavioural difficulties, as well as using appropriate medical terminology. In addition, students will focus on supporting patients who require assistance with basic physical movement safely which may be due to incapacity. The subject provides an introduction to the skills and knowledge relevant to VCE VET Health. Students completing this subject may also access VCE Health and Development, VCE Physical Education or VCE Outdoor and Environmental Studies at Year 11 and 12.

Studies include:

- Body systems
- Medical terminology
- Responding to behaviours of concerns
- Assisting with movement

### **School Assessed Coursework**

- A variety of theory based assessments and tests
- Scenario response to a behaviour of concern
- Exam

## FOOD TECHNOLOGY

Year 10 Food Technology adopts a closely related theoretical and practical approach to learning. Students will investigate and explore how the principles of food safety, preservation, preparation, presentation and sensory perceptions influence the creation of food solutions for healthy eating. They will develop a comprehensive understanding of the major food nutrients and how they are absorbed during the digestive process, in order to carry out specific body functions. Student will apply this knowledge to analyse, modify and develop nutritious meal plans. Students will consider current trends in the nutritional status of Australians and will investigate nutritional and lifestyle factors that influence food selection for groups with special dietary needs. Students will critically analyse social, ethical and sustainability factors that impact the design and production of food products. During weekly production sessions, students will produce a range of food items. They will have the opportunity to develop and improve their food preparation, cooking and presentation skills. Students will use the design process to investigate, generate, plan and manage, produce and evaluate a range of designed solutions in response to specific design brief scenarios. These can vary in complexity depending on the student's ability.

### School Assessed Coursework

- Podcast: Sensory Analysis
- Test: Digestion
- Design Brief: Investigating, Generating, Planning and Managing
- Design Brief: Production and Evaluation Test
- Investigation: Food and the Environment
- Exam

## ADVANCED FOOD TECHNOLOGY

Prerequisite – Successful completion of Year 10 Food Technology.

Year 10 Advanced Food Technology adopts a closely related theoretical and practical approach to learning. This unit is designed as a prerequisite for the study of VCE Food Studies. Students must display a genuine interest in the area and demonstrate the necessary skill level to attempt more creative and complex food products. The ability to work in a focused, independent manner is required. Students will investigate the properties of food and be able to link this to the various functions they have in food preparation. Aspects of the Australian food industry such as food trends, new product development, functional foods, labelling and packaging will also be explored. Students will use the design process to investigate, generate, plan and manage, produce and evaluate a range of designed solutions in response to specific design brief scenarios. These can vary in complexity depending on the student's ability.

### School Assessed Coursework

- Test: Properties of Food
- Investigation: Australian Food Industry  
Design Brief: Investigating, Generating, Planning and Managing
- Design Brief: Production and Evaluation Test
- Exam

## MATERIALS TECHNOLOGY

This unit will offer advanced skills in working with the range of materials that are commonly used in the Technology area. Students will be working with a variety of materials, tools and processes to investigate, design and construct products which have been developed to meet the requirements of teacher set design briefs. During the course of this unit, students will be instructed in the safe use of complex tools and processes, with a focus on helping them to achieve outcomes independently and in group situations.

### School Assessed Coursework

- Safety Test
- Designers, Manufacturing and Sustainability Assignment
- Design Folio
- Practical Project

## ADVANCED MATERIALS TECHNOLOGY

Pre-requisite - successful completion of Year 10 Materials Technology.

In this unit, students will further enhance and develop skills developed in the first Materials Technology unit. They will implement a variety of processes which will lead to the development of a product that meets the guidelines set by the teacher. Students will be required to use a number of processes to design, produce, test and evaluate products and processes completed throughout the entire development of the product. Tasks will include: technical drawing, Computer Aided Design, advanced practical skills and manufacturing methods. Students will be encouraged to work more independently and safely in response to teacher instructions.

This unit will help to prepare students who wish to undertake studies in VCE Product Design and Technology and manufacturing based studies in VCE Vocational Major.

### School Assessed Coursework

- Test – Work Health Safety Test
- Investigation
- Production Skills
- Design Folio
- Exam

## FASHION AND DESIGN TECHNOLOGY

Through enquiry and investigation, students will further expand their knowledge and understanding of textile materials, processes and terminology. Students will extend their skills in fabric manipulation and shaping techniques. They will select and use a range of fastenings and investigate and use a more complex range of decoration techniques to complement their products. Students continue to make use of commercial patterns as well as create their own patterns to design and create a range of textile items. Practical skills will be enhanced through a range of focused practical tasks. Students will revisit the design process and complete a major design brief where they will investigate, generate, plan and manage, produce and evaluate a textile item/garment. This task can vary in complexity depending on the student's ability.

### School Assessed Coursework

- Design Brief
- Developmental Folio
- Finished Product and Evaluation
- Exam

## SYSTEMS TECHNOLOGY

This unit aims to instruct students in Systems Technology with a focus on electrical and electronic processes and systems. Students will develop an understanding of the fundamental principles of electrical and electronic circuits, collectively and commonly referred to as electrotechnology. While this unit contains the basic understanding of electrotechnology systems and how they work, the main focus is on the investigation, design, construction and evaluation of operational electrotechnology systems. Students will use complex tools, equipment, materials and systems components and will implement a range of production processes accurately, consistently and safely based on their understanding of the relationship between inputs, processes and outputs. They will effectively use information and communications technology equipment, techniques and procedures to support the development of their design, planning and evaluation. All of the work and tasks will be underpinned by the Systems Engineering Methodology which is introduced at this level and leads into VCE Systems Engineering Units 1 & 2.

### School Assessed Coursework

- Safety Test
- Arduino Project Theory Assignment
- Arduino Project- Manufacturing, Coding and Testing
- Exam

## ADVANCED SYSTEMS TECHNOLOGY

Pre-requisite - successful completion of Year 10 Systems Technology.

This unit aims to instruct students in Systems Technology with an integrated approach to mechanical and electrotechnology processes and systems. The focus is on the functional integration of mechanical subsystems with electrotechnology subsystems and the design factors to be considered. Mechanical systems include pneumatic and hydraulic systems and subsystems. Electrotechnology is an inclusive term that includes electrical, electronic and microelectronic systems and subsystems. While this unit contains the fundamental understanding of electrotechnology systems and how they work, the main focus is on the investigation, design, construction and evaluation of controlled integrated technological systems. Students will use complex tools, equipment, materials and systems components and will implement a range of production processes accurately, consistently and safely based on their understanding of the relationship between inputs, processes and outputs. They will effectively use information and communications technology equipment, techniques and procedures to support the development of their design, planning and evaluation.

This unit is essential for students wishing to attempt the VCE Systems Engineering study and should also prepare students for further pathways in this area.

### School Assessed Coursework

- Investigation
- Production Skills
- Workbook / Journal
- Exam

## COMPUTER APPLICATIONS AND PROGRAMMING

This course has been developed as the basis for VCE Applied Computing Units 1 and 2. Students will develop skills in applications such as Visual Basic, Photoshop, Access, Excel, Dreamweaver, and Project. Each activity will be presented to students as a design brief or in the form of a problem solving activity. Examples of activities and products would include, writing programs in Visual Basic, mail merging techniques, developing electronic order forms, compact disk or video jacket cover designs, simple newsletters, brochures and restaurant menus. Students will also investigate the importance of Cyber Security and different techniques used to improve cyber security. Computer Networks will also be examined with respect to different types of topology and operating systems.

### School Assessed Coursework

- Folio of Production Tasks
- Multimedia / Cyber Security/Networking Assignment
- Programming Assignment
- Exam

## ADVANCED COMPUTER APPLICATIONS AND PROGRAMMING

This course has been developed as the basis for VCE Information Technology Units 1 and 2, VCE Software Development and Data Analytics Units 3 and 4. Students will develop more advanced skills in applications such as Visual Basic, Access, Excel and Dreamweaver. Each activity will be presented to students as a design brief or in the form of a problem solving activity. Fileservers, routers and network topologies will be examined with respect to creating advanced information systems. The importance and role of Cyber Security will also be examined along with ways of improving our cyber security in our use of the internet.

### School Assessed Coursework

- Folio of Production Tasks
- Multimedia / Networking / Cyber Security Assignment
- Programming Assignment
- Exam

# ADDITIONAL ELECTIVES

## TRIGONOMETRY AND CALCULUS

This unit is available only to students who are completing Year 10 Mathematics Advanced. Any student planning to enrol in VCE Units 1 and 2 Mathematical Methods in Year 11 must have completed Trigonometry and Calculus in Year 10.

This course involves studying:

- Applying trigonometry and Pythagoras' theorem in 3D
- Learning about the radian
- Defining the trigonometric ratios using a unit circle
- Establishing relationships between the trigonometric functions
- Knowing the exact trigonometric values of the special angles ( $0^\circ$ ,  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$  and  $90^\circ$ )
- Extending the special angles into the four quadrants and beyond
- Graphing the sine, cosine and tangent functions
- Sketching trigonometric functions with transformations
- Calculating the area of any triangle
- Computing the arc length, sector and segment area of a circle
- Proving the sine and cosine rules for non-right angled triangles

The students will then move on to the study of the fascinating branch of mathematics called Calculus by learning about:

- Function notation
- The limit of a function
- Rates of change
- The gradient of a function using first principles
- Differentiation of polynomials
- Sketching polynomials

### School Assessed Coursework

- Topic Tests
- Application Tasks
- Exam

## LITERATURE

The study of literature focuses on the enjoyment and appreciation of reading that arises from discussion, debate and the challenge of exploring the meaning of texts. Students will develop an understanding of literature through the study of texts from a range of genres including novels, plays, poems and films. Students will explore themes and ideas and reflect on their interpretations and those of others. Students will practise responding to literature in a range of styles, including producing analytical and creative responses.

### School Assessed Coursework

- Oral Presentation
- Text Response
- Creative Writing
- Exam

## INTRODUCTION TO EXTENDED INVESTIGATION

This unit is designed for students who may be interested in completing VCE Extended Investigation in future years. The unit enables students to carry out an investigation that focuses on an independent research question of their choosing. Students learn about different research methodologies and develop, refine and extend their research knowledge and skills. Students complete a literature review and collect and analyse data in order to compile and present their research findings. Through this study, students develop their capacity to explore, justify and defend their research findings to an audience in both oral and written forms. They have the opportunity to develop critical thinking, research and writing skills that are relevant and transferable to other domains and real-world scenarios.

### School Assessed Coursework

- Topic Tests
- Projects and Problem-solving Activities
- Written Report on Research Findings
- Oral Presentation of Research Findings



## ROBOTICS

In Robotics, students will engineer and design processes and program robots to solve several set challenges. Students are expected to gain their knowledge and skills whilst working on a variety of projects throughout the semester unit. The use of inductive reasoning will be key to solving set task or challenges.

The students will be evaluated on their ability to follow the design process and how they respond to the challenges they encounter in this process.

Students will focus on:

- Basic to Advanced Programming
- Engineering design process
- Electricity
- Electrical Circuits and their components
- Project based learning (PBL) Challenges
- Extension Challenges

### **School Assessed Coursework**

- PBL Portfolio
- Tests
- Exam

# UNIT COSTS

## Year 10

Subject	Unit Charges	Additional Costs
English	\$30	
English as an Additional Language	\$30	
Interdisciplinary Studies	\$40	
Mathematics - Foundation	\$30	
Mathematics - General	\$30	
Mathematics - Advanced	\$30	
Geography	\$20	
History	\$20	
Legal Studies	\$20	
Business and Economics	\$20	
Philosophy	\$20	
Italian 1	\$20	
Italian 2	\$20	
Destinazione Italia	\$20	
Japanese 1	\$20	
Japanese 2	\$20	
Let's Discover Japan	\$20	
Advanced Science 1	\$40	
Advanced Science 2	\$40	
Practical Science	\$50	
Art	\$50	
Extend Your Folio	\$50	
Visual Communication Design	\$50	
Media Studies 1	\$50	
Media Studies 2	\$50	
Drama	\$50	
Dance	\$50	
Classroom Music	\$30	+ \$250 annual Instrumental Music lessons
Health and Development	\$30	
Outdoor and Environmental Studies	\$30	+ charges for compulsory excursions and camps will be in excess of \$500
Physical Education	\$30	
Sport and Recreation	\$30	+ \$60 excursion fees
Health Services	\$30	
Food Technology	\$80	
Advanced Food Technology	\$80	
Materials Technology	\$80	
Advanced Materials Technology	\$80	

Subject	Unit Charges	Additional Costs
Fashion and Design Technology	\$80	
Systems Technology	\$80	
Advanced Systems Technology	\$80	
Computer Applications & Programming	\$20	
Advanced Computer Applications & Programming	\$20	
Literature	\$30	
Trigonometry & Calculus	\$30	
Introduction to Extended Investigation	\$30	
Robotics	\$50	