



WILLIAM RUTHVEN
SECONDARY COLLEGE

Year 11
Course Counselling
Handbook
2018

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PRINCIPAL'S MESSAGE

Congratulations! You are now moving into the final years of formal schooling before you decide on university, TAFE, apprenticeship or workplace options. It is with great excitement I look forward to our work together in 2018. I feel privileged to work with you as you move into your future. This is an exciting time full of possibilities and will be immensely rewarding if you value the learning and contribute with a great deal of hard work! Learning is about curiosity- exploring the many aspects of Science, Humanities, English, Mathematics, The Arts and Technologies. The subjects, which are described in detail in this book, will help you make the right choices for your VCE and VCAL studies in 2018. Learning is also about building knowledge. No matter which subjects you select to study in Units 1-4 VCE or VCAL, you are building a body of knowledge, which will stand you in good stead for the rest of your life.



Our values are **L**eadership **E**xcellence **A**cceptance **R**espect **N**ow @ WRSC. These values will help you to persist and excel in study, work and life beyond school. I wish you every success.

Judith Benney
Principal

MANAGEMENT OF INDIVIDUAL PATHWAYS

The course-counselling program at William Ruthven Secondary College is based on the principles of integration and collaboration. The program brings together the student and the key people in their life and collaboratively, they identify and analyse the student's goals, areas of interest and academic ability. Through this integrated approach, the student and key stakeholders develop a career action plan that is understood, aspirational and achievable.

Students are supported in selecting their Senior School program with a careers counsellor. The careers counsellor works with students during all the planning days and supports them through their studies.

Senior School programs at William Ruthven Secondary College are designed to cater to the individual. Students may be involved in a variety of alternative programs such as:

- Vocational Education and Training (VET)
- Australia School-based Apprenticeships (ASBA)
- Three Year VCE Programs
- Enhancement Studies (University studies)
- VCAL Victorian Certificate of Applied Learning

Details of the above programs can be found in this handbook

Students will be assisted to select the most appropriate course of study based on their individual learning needs and career ambitions.

PROMOTION INTO YEAR 11 PROGRAM

PROMOTION POLICY

Term One assessment tasks and feedback will be used to identify 'students at risk' of not being promoted. Year Level Leaders will prepare a list of 'students at risk' of non-promotion. Students and their parents/guardians will be counselled by the appropriate staff as to the action they could take to improve their performance and prospects of promotion.

During Terms Two, Three and Four progress will be monitored in an on-going way by the Year Level Leaders with the support of the Senior School Leader. The College will provide every assistance possible to ensure that student improvement occurs.

Assistance will be individually tailored and may include regular parent contact, interviews with careers counsellors, conduct and progress cards, lunchtime and after school classes, extra help with organisational and diary skills, contracts and peer or adult mentoring.

During the course counselling process for Year 11 students, teachers' recommendations about the likelihood of the satisfactory completion of subjects will be sought as guidance on subject choices and promotion to Year 12.

Year 11 students need a minimum of 8 VCE Units completed to be promoted to Year 12, including at least 1 unit of English.

SUMMARY OF VCE REQUIREMENTS

For all VCE studies, assessment involves a mix of school-based assessment and external examinations, with the external examination contributing up to 66% of the student's final study score. In most cases, the school-based assessment is referred to as School-Assessed Coursework (SAC) but in studies in which a folder of work is accumulated throughout the year (Art, Design Technology, Food Technology, Media, Studio Art and Visual Communication & Design, etc.), this work is referred to as a School-Assessed Task (SAT).

For School-Assessed Coursework (SAC), tasks will generally be completed in class time and there will be no drafting of work submitted for assessment, as has been the case in the past. The marks achieved by the students in their SAC will be forwarded to VCAA and will contribute to the final study score. However, these will be statistically moderated against the examination results of the total school cohort in that study.

MINIMUM REQUIREMENTS FOR THE AWARD OF THE VCE

The minimum requirement is the satisfactory completion of 16 units, which must include:

- Three (3) units from the English group, with at least one unit at Units 3 and 4 level.
- At least three sequences of Units 3 and 4 studies other than English, which may include any number of English sequences once the English requirement has been met.

The Victorian Tertiary Admissions Centre (VTAC) advises that for the calculation of a student's Australian Tertiary Admission Rank (ATAR), satisfactory completion of both Units 3 and 4 of an English sequence is required.

ASSESSMENT

Satisfactory completion of a Unit

Each VCE Unit includes two to four Learning Outcomes. An S will be awarded for satisfactory completion of a Unit when a student demonstrates achievement of all outcomes. This decision will be based on the teacher's assessment of the student's overall performance on the

designated assessment tasks for the Unit. If N is awarded for any outcome this will result in a failure for the entire Unit.

In accordance with VCAA advice, achievement of an outcome means:

- The work meets the required standard
- The work was submitted on time
- The work is clearly the student's own
- There has been no substantive breach of rules.

If all outcomes are achieved, the student receives an S for the unit.

A student may not be granted satisfactory completion if:

- The work is not of the required standard
- The student has failed to meet a school deadline for the assessment task, including where an extension of time has been granted for any reason, including Special Provision
- The work cannot be authenticated
- There has been a substantive breach of rules including school attendance rules.

If any of the outcomes are not achieved, the student receives an N for the unit.

Where a student has completed work but there has been a substantive breach of class attendance, the student may be awarded an N.

ASSESSMENT OF LEVEL OF PERFORMANCE

VCE

Units 1 and 2

These Units are graded on the basis of work undertaken by students in connection with the learning outcomes, called SACs. This will be part of the regular teaching and learning program and will be completed mainly in class time. The school determines grades – VCAA does not report graded results for Units 1 and 2.

Units 3 and 4

Forms of Assessment:

School-Assessed Coursework (SAC)

- Assesses each student's overall level of achievement on the assessments tasks listed in the Study Design. The Study design specifies a range of assessment tasks (e.g. assignment, essay, test, report in multi-media format) to assess the achievement of each of the Unit's outcomes.
- Is part of the regular teaching and learning program
- Is completed mainly in class time, within a limited time frame

School-Assessed Tasks (SATs)

- Completed only in Units 3 and 4 in Media, Studio Art, Art, Visual Communication and Design and Food Technology
- Designed to assess specific sets of skills for products or models
- Tasks that will be teacher assessed according to criteria set by the VCAA.

Examinations

End of year examinations apply to all Unit 3 and 4 studies.

General Achievement Test (GAT)

All students enrolled in a Unit 3 and 4 study will be required to sit the GAT in that year. The GAT is administered through VCAA and is used to verify student results by comparing individual GAT, SAC and SAT results. The GAT exam is held in June each year.

SUBJECTS OFFERED AT UNIT 1 & 2 IN 2018

ENGLISH OR LITERATURE ARE COMPULSORY FOR ALL STUDENTS

Arts/Humanities	Mathematics, Science & Technology
Accounting Business Management English Geography Health & Human Development History Twentieth-Century Legal Studies Literature Media Outdoor & Environmental Studies Physical Education Studio Art Visual Communication & Design	Biology Chemistry Design & Technology <ul style="list-style-type: none">- Textiles- Food Studies Computing Mathematics <ul style="list-style-type: none">- General Mathematics- Mathematical Method- Further Mathematics (3 & 4) Physics Psychology

These subjects are not guaranteed.

Please note: Subjects will only run if there are sufficient student numbers.

HOW TO CHOOSE A PATHWAY FOR 2018

1. Participate in the various career planning/course-counselling activities planned by the school.
2. Familiarise yourself with the resources provided to you by the school for course planning.
 - VCAA Where to Now - Guide to the VCE, VCAL and Apprenticeships and Traineeships
 - Job Guide
 - myfuture.com.au
 - William Ruthven Secondary College Handbook
 - VICTER 2017
3. Attend the VCE information evening and receive the William Ruthven Secondary College Handbook.
4. Read through the unit descriptions and the various VET (Vocational Education and Training) courses offered at the College. Discuss the inclusion of these in your Senior School program with your parents and careers counsellor.
5. Choose VCE units/courses that:
 - Interest you
 - You are good at
 - Lead to employment you find appealing
 - Are pre-requisite studies for further training or tertiary courses that you are considering.
6. Read over the suggested programs to get an idea of what programs are possible. Consider the possibility of completing a VCAL certificate and discuss this option with your careers counsellor.
7. Use the **Initial** Expression of Interest in Subject Selection Form at the back of this handbook to select a VCE program for next year.
8. Attend the VCE Information Evening in term 3.
9. Attend the interview with your course selection teacher and finalise your selection.
10. Fill in a **Final** Expression of Interest in Subject Selection Form and await confirmation of course in Term 4.

TERTIARY ENTRANCE & CAREER DEVELOPMENT

The Career Resource Centre, together with the careers counsellor will support students to develop their career planning pathways. Each are provided to assist students to prepare for Year 12 and to understand the various terms and information that are necessary when selecting courses and training pathways for 2018.

The VTAC guide lists the courses available to Year 12 students at University, TAFE and other Private Providers. To apply through the VTAC system, the minimum tertiary entrance requirements are the satisfactory completion of both the VCE and English Units 3 and 4 (or English ESL or English Literature). Units 3 and 4 English must be completed in sequence in the same calendar year.

For TAFE courses listed in the VTAC Guide, an ATAR score is not always required. Satisfactory completion of the VCE and Units 3 and 4 English (any) or equivalent Senior Secondary completion such as Senior VCAL is needed.

Once you meet the minimum tertiary entrance requirements, you will compete with other applicants applying for a course. Criteria used for selection will vary from course to course. When applying to courses, you need to ensure you meet the prerequisite studies and fulfil any extra requirements such as a folio, interview, information session or special test.

The Australian Tertiary Admission Rank (ATAR) is the primary selection mechanism for Year 12 students. The ATAR is calculated and distributed by VTAC to all current VCE students who have successfully completed VCE English Units 3 and 4, and at least three other Unit 3 and 4 VCE studies and who have made an application to VTAC. Courses that do not select on ATAR will have extra requirements that will need to be fulfilled in order to be considered for entry.

VCAL students will not be eligible for an ATAR but may be eligible to apply for TAFE studies. Students will be assisted to make the transition to the workforce or further training by the Careers Counsellor.

AN OPEN PATHWAY TO VCE OR VCAL

At year 11, students are able to take a course that allows them to continue with VCE in Year 12 or choose to undertake the Senior VCAL certificate.

In the Open Pathway, all students will study a VET subject on a Wednesday afternoon. Also, they will complete English and General Maths have a choice of other VCE subjects offered, such as Outdoor Education, Business Management, Design and Technology (Food) and Design and Technology (Textiles), Visual Communication and Media. To prepare students for the Senior VCAL certificate in Year 12, students will also undertake a school based subject focused on broadening their knowledge of the world around them. This subject will NOT offer VCE or VCAL credit but will prepare students for both.

Students will have the opportunity to complete a work placement at the end of year 11.

Suggested Pathway to Senior VCAL or VCE:

English (compulsory)	VET (compulsory)	General Maths (compulsory)	'You and the World' (compulsory)	A VCE Subject	A VCE Subject
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This Open Pathway provides students with the option to choose to study either VCE or VCAL Senior Certificate in Year 12. Students will be required to apply for the Year 12 VCAL program at the end of Year 11. The application process will require a letter of application and an interview. Students wanting to study VCAL in year 12 will need to demonstrate independent learning capacity, organization skills and be able to discuss their chosen career path in depth.

YOU AND THE WORLD

You and the World aims to prepare students for the Senior VCAL certificate in Year 12. The focus of this unit will be to explore the 'world beyond themselves' and broaden students understanding of contemporary issues and events. In this subject students will study issues relevant to themselves and the community. Through their study they will develop their skills and knowledge in:

- Reading
- Summarising/paraphrasing
- Communicating (written and oral)
- Letter writing
- Organisation (both personal and IT organisation)
- Research
- Team work and Independent work
- Making judgments and supporting them with evidence

Learning Tasks:

- collaboration and critical reflection
- planning, developing and working to timelines
- small and large group activities
- oral presentations and feedback where students adapt and modify work according to feedback from audience and self-reflection
- guest speakers
- written essays, reports and reviews
- production of multimedia and/or web content
- undertaking research projects

Assessment tasks will enable students to:

- the application of abstract concepts and technical skills
- the application of skills and knowledge to tasks that are unfamiliar and challenging.
- students will demonstrate independent learning and study skills
- link existing skills and student experiences to unfamiliar and challenging contexts.

Vocational Education and Training Study Opportunities (VET)

To successfully complete your VCAL certificate at year 12, you will need to include a course of study from the TAFE sector. You can begin the VET course in year 11. All VET studies available are listed in the Northern Melbourne VET Cluster Handbook 2016.

Course descriptions and costs may vary depending on departmental policies and funding. Generally, VET courses cost around \$200 per year, depending on the course chosen. Courses will run depending on student numbers.

All courses listed above will have a compulsory information and enrolment session in term 4. Course Details are available in the Northern VET Cluster Handbook. See careers coordinator for a copy of the booklet. This booklet will be available to students on the course-counselling day.

SCHOOL BASED APPRENTICESHIPS/ PART TIME TRAINEESHIPS

School-based Part-Time Traineeships/Apprenticeships allow students to train and get paid work while completing their Senior School and TAFE studies. Students who successfully apply for this program will work one day a week (including school holidays) and on other days, study for their VCAL and TAFE qualification.

These studies will satisfy the industry specific strand in the VCAL programs. The benefits for students are:

- VCAL certificate as well as a TAFE qualification.
- Paid employment for the time spent at work.
- Formal training with a TAFE College.
- A current work history to assist in obtaining employment after leaving school.
- A pathway to tertiary education.

A range of traineeships is available and students will be supported by the school where they wish to access them.

The areas available include

- Retail operations
- Horticulture
- Office Administration
- Information Technology
- Automotive
- Hairdressing
- Hospitality
- Business

*Please indicate to Careers Counsellor if you have an interest in this area.
You will need to consider a second vocational program if you are a VCAL student
as your application for this program may be unsuccessful.*

SAMPLE PROGRAMS - VCE

Sample programs have been provided for you to offer you some suggestions in your interest areas. Many other combinations are possible and all options should be explored when considering a course of study.

Recommended Business Program

Career & Study options include:

- o Commerce/Business
- o Economics
- o Accounting
- o Travel, Tourism & Hospitality
- o Information Processing & Management
- o Business
- o Advertising
- o Banking & Finance
- o Management
- o Real Estate
- o Marketing
- o Public Relations

English	Maths Methods	General Maths	Information Technology	Legal Studies	Accounting
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Complementary Studies

- o Business Management
- o Psychology
- o Literature

Arts/Humanities Program

English	Literature	General Maths	History	Psychology	Legal Studies
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Career & Study options include:

- o Education
- o Journalism
- o Film, Television & Theatre
- o Research
- o Administration
- o Politics
- o Law
- o Social Work
- o Tourism
- o Hospitality
- o Writing
- o Human Resource Management

Complementary Studies

- o Media
- o Drama
- o Information Technology
- o Music Performance
- o Geography

Recommended Art and Design Program

English	Design & Technology	General Maths	Information Technology	Visual Communication & Design	Studio Arts
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Career & Study options include:

- o Design Industry including:
Fashion, Graphic Design, Industrial Design, and, Web Page and Multimedia Design
- o Draftsperson
- o Architect
- o Furniture Designer
- o Painting
- o Printmaking
- o Photography

Complementary Studies

- o Maths Methods
- o Media
- o Drama
- o Music Performance
- o Business Management
- o Physics

Recommended Science & Technology Program

English	Chemistry	Physics	Biology	General Maths	Maths Methods
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Career & Study options include:

- o Science
- o Engineering
- o Computing
- o Building Design & Drafting
- o Electronics
- o Aviation
- o Mechanical

Complementary Studies

- o Psychology
- o Health & Human Development
- o Physical Education
- o Info Technology

Recommended Health, Animal & Environmental Program

English	Chemistry	Biology	Physical Education	General Maths	Health & Human Development
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Career & Study options include:

- o Biomedical Sciences
- o Chiropractic Science
- o Physiotherapy
- o Nursing
- o Medical Laboratory Science
- o Radiographer
- o Food & Nutrition
- o Fitness Instruction
- o Dental/Medical

Complementary Studies

- o Physics
- o Physical Education
- o Maths Methods

ACCOUNTING

Unit 1: Establishing and operating a service business.

This unit focuses on the establishment of a small business and the accounting and financial management of the business. Students are introduced to the processes of gathering and recording financial data and the reporting and analysing of accounting information by internal and external users. The cash basis of recording and reporting is used throughout this unit. Using single entry recording of financial data and analysis of accounting information, students examine the role of accounting in the decision-making process for a sole proprietor of a service business.

Outcome 1

On completion of this unit the student should be able to describe the resources required, and explain and discuss the knowledge and skills necessary, to set up a small business.

Outcome 2

On completion of this unit the student should be able to identify and record the financial data, and report and explain accounting information, for a sole proprietor of a service business.

Unit 2: Accounting for a trading business

This unit extends the accounting process from a service business and focuses on accounting for a sole proprietor of a single activity trading business. Students use a single entry recording system for cash and credit transactions and the accrual method for determining profit. They analyse and evaluate the performance of the business using financial and non-financial information. Using these evaluations, students suggest strategies to the owner on how to improve the performance of the business. Students develop their understanding of the importance of ICT in the accounting process by using a commercial accounting software package to establish a set of accounts, record financial transactions and generate accounting reports.

Outcome 1

On completion of this unit the student should be able to record financial data and report accounting information for a sole trader.

Outcome 2

On completion of this unit the student should be able to record financial data and report accounting information for a single activity sole trader using a commercial accounting software package, and discuss the use of ICT in the accounting process.

Outcome 3

On completion of this unit the student should be able to select and use financial and non-financial information to evaluate the performance of a business and discuss strategies that may improve business performance.

BIOLOGY

Unit 1: How do living things stay alive?

In this unit students are introduced to some of the challenges to an organism in sustaining life. Students examine the cell as the structural and functional unit of life, from the single celled to the multicellular organism, and the requirements for sustaining cellular processes in terms of inputs and outputs. They analyse types of adaptations that enhance the organism's survival in a particular environment and consider the role homeostatic mechanisms play in maintaining the internal environment. Students investigate how a diverse group of organisms form a living interconnected community that is adapted to, and utilises, the abiotic resources of its habitat. The role of a keystone species in maintaining the structure of an ecosystem is explored. Students consider how the planet's biodiversity is classified and the factors that affect the growth of a population.

Area of study 1

How do organisms function?

In this area of study students examine the structure and functioning of cells and how the plasma membrane contributes to survival by controlling the movement of substances into and out of the cell. Although the internal structure of a cell varies, all cells require a relatively stable internal environment for optimal functioning. Whether life forms are unicellular or multicellular, or heterotrophic or autotrophic, whether they live in a deep ocean trench, a tropical rain forest, an arid desert or on the highest mountain peak, all individual organisms are faced with the challenge of obtaining nutrients and water, exchanging gases, sourcing energy and having a means of removal of waste products.

Area of Study 2

How do living systems sustain life?

In this area of study students examine the structural, physiological and behavioural adaptations of a range of organisms that enable them to survive in a particular habitat and to maintain a viable population size over time. Students consider the distinction between the external and internal environment of an organism and examine how homeostatic mechanisms maintain the internal environment within a narrow range of values for factors including temperature, blood glucose and water balance. They explore the importance and implications of organising and maintaining biodiversity and examine the nature of an ecosystem in terms of the network of relationships within a community of diverse organisms. Students identify a keystone species, explore an organism's relationship to its habitat and evaluate the impact of abiotic factors on the distribution and abundance of organisms within the community. Factors affecting population size and growth are analysed.

Area of Study 3

Practical investigation

Survival requires control and regulation of factors within an individual and often outside the individual. In this area of study students design and conduct a practical investigation into the survival of an individual or a species. The investigation requires the student to develop a question, plan a course of action to answer the question, undertake an investigation to collect the appropriate primary qualitative and/or quantitative data, organise and interpret the data and reach a conclusion in response to the question. The investigation is to be related to knowledge and skills developed in Areas of Study 1 and/or 2 and is conducted by the student through laboratory work, fieldwork and/or observational studies.

Unit 2: How is continuity of life maintained?

In this unit students focus on cell reproduction and the transmission of biological information from generation to generation. Students learn that all cells are derived from pre-existing cells through the cell cycle. They examine the process of DNA replication and compare cell division in both prokaryotic and eukaryotic organisms. Students explore the mechanisms of asexual and sexual reproductive strategies, and consider the advantages and disadvantages of these two types of reproduction. The role of stem cells in the differentiation, growth, repair and replacement of cells in humans is examined, and their potential use in medical therapies is considered. Students use chromosome theory and terminology from classical genetics to explain the inheritance of characteristics, analyse patterns of inheritance, interpret pedigree charts and predict outcomes of genetic crosses. They explore the relationship between genes, the environment and the regulation of genes in giving rise to phenotypes. They consider the role of genetic knowledge in decision making about the inheritance of autosomal dominant, autosomal recessive and sex-linked genetic conditions. In this context the uses of genetic screening and its social and ethical issues are examined.

Area of Study 1

How does reproduction maintain the continuity of life?

In this area of study students consider the need for the cells of multicellular organisms to multiply for growth, repair and replacement. They examine the main events of the cell cycle in prokaryotic and eukaryotic cells. Students become familiar with the key events in the phases of the cell cycle, and focus on the importance of the processes involved in a cell's preparation for cell division. Students investigate and use visualisations and modelling to describe the characteristics of each of the phases in mitosis. Cytokinesis is explained for both plant and animal cells. Students describe the production of gametes in sexual reproduction through the key events in meiosis and explain the differences between asexual and sexual reproduction in terms of the genetic makeup of daughter cells. Students consider the role and nature of stem cells, their differentiation and the consequences for human prenatal development and their potential use to treat injury and disease.

Area of Study 2

How is inheritance explained?

In this area of study students build on their understanding of the nature of genes and the use of genetic language to read and interpret patterns of inheritance and predict outcomes of genetic

crosses. They gain an understanding that a characteristic or trait can be due solely to one gene and its alleles, or due to many genes acting together, or is the outcome of genes interacting with external environmental or epigenetic factors. Students apply their genetic knowledge to consider the social and ethical implications of genetic applications in society including genetic screening and decision making regarding the inheritance of autosomal and sex-linked conditions.

Area of Study 3

Investigation of an issue

The increasing uses and applications of genetics knowledge and reproductive science in society both provide benefits for individuals and populations and raise social, economic, legal and ethical questions. Human cloning, genetic modification of organisms, the use of forensic DNA databanks, assisted reproductive technologies and prenatal and predictive genetic testing challenge social and ethical norms. In this area of study students apply and extend their knowledge and skills developed in Areas of Study 1 and/or 2 to investigate an issue involving reproduction and/or inheritance. They communicate the findings of their investigation and explain the biological concepts, identify different opinions, outline the legal, social and ethical implications for the individual and/or species and justify their conclusions. Material for the investigation can be gathered from laboratory work, computer simulations and modelling, literature searches, global databases and interviews with experts.

Learning Activities include:

- Problem-solving
- Experimental work
- Case Studies
- Research.

Assessment Tasks

- Practical and field activities
- Structured practical reports
- Tests
- Exam
- Production of reports in non-text formats e.g. Posters, multimedia
- Questions and problems.

Special Requirements

Students will be required to attend excursions to complete fieldwork and research activities.

BUSINESS MANAGEMENT

Business management is the study of concepts, which apply to the management of businesses. It examines the ways in which people at various levels within a business organisation manage resources to achieve business objectives. Students develop an understanding of the challenges, complexity and rewards that come from business management and gain insight into the various ways resources can be managed in businesses whether they be small partnership businesses or large public companies.

UNIT 1: Planning a Business

Businesses of all sizes are major contributors to the economic and social wellbeing of a nation. Therefore how businesses are formed and the fostering of conditions under which new business ideas can emerge are vital for a nation's wellbeing. Taking a business idea and planning how to make it a reality are the cornerstones of economic and social development. In this unit students explore the factors affecting business ideas and the internal and external environments within which businesses operate, and the effect of these on planning a business.

The three topic areas are:

- Business Idea
- External Environment
- Internal Environment

UNIT 2: Establishing a Business

This unit focuses on the establishment phase of a business's life. Establishing a business involves complying with legal requirements as well as making decisions about how best to establish a system of financial record keeping, staff the business and establish a customer base. In this unit students examine the legal requirements that must be satisfied to establish a business. They investigate the essential features of effective marketing and consider the best way to meet the needs of the business in terms of staffing and financial record keeping. Students analyse various management practices in this area by applying this knowledge to contemporary business case studies from the past four years.

The three topic areas are:

- Legal and Financial considerations
- Marketing a business
- Staffing a business

Assessment for Unit 1 and 2 could include:

- a case study analysis
- a business research report

- development of a business plan and/or feasibility study
- an interview and a report on contact with business
- a school-based, short-term business activity
- a business simulation exercise
- an essay
- a business survey and analysis
- a media analysis.

BUSINESS MANAGEMENT Unit 3 and Unit 4

Units 3 & 4 are only available to students who have completed Business Management units 1 and 2 in Year 10.

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.

Outcome 1

On completion of this unit the student should be able to discuss the key characteristics of businesses and stakeholders, and analyse the relationship between corporate culture, management styles and management skills.

Outcome 2

On completion of this unit the student should be able to explain theories of motivation and apply them to a range of contexts, and analyse and evaluate strategies related to the management of employees.

Outcome 3

On completion of this unit the student should be able to analyse the relationship between business objectives and operations management, and propose and evaluate strategies to improve the efficiency and effectiveness of business operations.

UNIT 4: TRANSFORMING A BUSINESS

Businesses are under constant pressure to adapt and change to meet their objectives. In this unit students consider the importance of reviewing key performance indicators to determine current performance and the **UNIT 3: MANAGING A BUSINESS** 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.

Outcome 1

On completion of this unit the student should be able to explain the way business change may come about, use key performance indicators to analyse the performance of a business, discuss the driving and restraining forces for change and evaluate management strategies to position a business for the future.

Outcome 2

On completion of this unit the student should be able to evaluate the effectiveness of a variety of strategies used by managers to implement change and discuss the effect of change on the stakeholders of a business.

Contribution to final assessment

School-assessed Coursework for Unit 3 will contribute 25 per cent.

School-assessed Coursework for Unit 4 will contribute 25 per cent.

The level of achievement for Units 3 and 4 is also assessed by an end-of-year examination, which will contribute 50 per cent.

CHEMISTRY

Chemistry is a key science in explaining the workings of our universe through an understanding of the properties and interaction of substances that make up matter. Most processes, from the formation of molecules in outer space to the complex biological interactions occurring in cells, can be described by chemical theories. Although there are no sharp boundaries between sciences such as chemistry, physics and biology, chemistry is used to explain natural phenomena at the molecular level, as well as create new materials such as medicines and polymers.

UNIT 1: THE BIG IDEAS OF CHEMISTRY

Key knowledge

- Elements and the Periodic Table
- Metals
- Ionic compounds
- Quantifying atoms and compounds
- Materials from molecules
- Carbon lattices and carbon nanomaterials
- Organic compounds
- Polymers
- The mole concept including empirical and molecular formulas, percentage composition, Avogadro's constant
- Models of bonding to explain observed properties including melting temperature, electrical
- Conductivity, chemical reactivity, shape, polarity of bonds, intermolecular forces

- Properties and systematic naming of alkanes and alkenes up to C6
- Structural isomers of C4H10

UNIT 2: ENVIRONMENTAL CHEMISTRY

Key knowledge:

- Properties of water
- Water as a solvent
- Acid base (proton transfer) in water
- Redox (electron transfer) in water
- Water sample analysis
- Measurement of solubility and concentration
- Analysis for salts in water
- Analysis for organic compounds in water
- Analysis for acids and bases in water
- Calculations including mass-mass stoichiometry and concentration and volume of solutions; pH of strong acids and of strong bases
- Role of the atmosphere in maintaining life in the environment

Assessment:

For Unit 1 and 2, this will involve topic tests, written practical reports, Practical investigation (in poster form) a response to stimulus material in written, oral, visual, or multimedia format, and an exam at the end of each unit. Assessment based on biological, domestic and industrial industries.

ENGLISH

Unit 1:

Students read and respond to texts analytically and creatively. They explore how meaning is created by decisions authors make and consider how authors use features such as structure and language to build the world of the text. Students also analyse arguments and the use of persuasive language, including written, spoken and visual language, in pieces intended to position audiences to share the view of the writer or speaker. They create their own texts intended to position audiences.

ASSESSMENT:

1. An analytical response to a set text
2. A creative response to a set text
3. An analysis of the use of argument and persuasive language in texts
4. An oral presentation that presents an argument or viewpoint

OUTCOMES:

1. Produce analytical and creative responses to texts.
2. Analyse how argument and persuasive language can be used to position audiences and create their own texts intended to position audiences.

Unit 2:

Students explore texts compare ideas, issues and themes in ways that can deepen understanding of them both. They further consider how features of the writing reflect human experience, including historical and social contexts. Students build on their ability to analyse arguments and the use of persuasive language, in particular by considering how texts are constructed and the logical development of ideas within them. Students will craft a piece with the intent of positioning an audience to share the point of view.

ASSESSMENT:

1. A comparative analytical response to set texts
2. An analysis of the use of argument and persuasive language in texts
3. A written text that presents an argument or viewpoint

OUTCOMES:

1. Compare the presentation of ideas, issues and themes in two texts
2. Identify and analyse how argument and persuasive language are used in texts that attempt to influence an audience and create a text which presents a point of view

ENGLISH AS AN ADDITIONAL LANGUAGE

Unit 1: Approaches to Literature

COURSE OUTLINE: Focuses on the ways in which the interaction between text and reader creates meaning. Students respond in a variety of ways to question and consider the ideas and concerns in texts, through investigation of literary features and conventions.

Understanding of texts is further developed through the analysis of and response to literary criticism.

ASSESSMENT:

1. Oral presentation
2. Folio of responses
3. Analysis of literary criticism
4. Examination

OUTCOMES:

1. Respond to a range of texts and reflect on influences shaping these responses.
2. Analyse the ways in which a selected text reflects or comments on the ideas and concerns of individuals and particular groups in society.

Unit 2: Context and Connections

COURSE OUTLINE: Focuses on the ways literary texts connect with each other and with the world. Students consider the relationships between authors, audiences and contexts. Ideas, language and structures of different texts from past and present eras and/or cultures are compared and contrasted through close analysis.

ASSESSMENT:

1. Creative and critical response
2. Comparative response
3. Close analysis
4. Examination

OUTCOMES:

1. Analyse and respond critically and creatively to the ways a text from a past era and/or a different culture reflect or comment on the ideas and concerns of individuals and groups in that context.
2. Compare texts considering the dialogic nature of texts and how they influence each other.

FOOD STUDIES

Unit 1: Food Origins

This unit focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world.

Area of study 1 – Food around the World

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

Outcome 1: Students should be able to identify and explain major factors in the development of a globalised food supply, and demonstrate adaptations of selected food from earlier cuisines through practical activities.

Area of Study 2 - Food in Australia

In this area of study students focus on the history and culture of food in Australia. They look at indigenous food prior to European settlement and the attempts of the first non-indigenous settlers to establish a secure and sustainable food supply. Students consider the development of food production, processing and manufacturing industries and conduct a critical inquiry into how Australian food producers and consumers today have been influenced by immigration and other cultural factors. Students conduct research into foods and food preparation techniques introduced by immigrants over time and consider the resurgence in interest in indigenous food practices, while reflecting on whether Australia has developed a distinctive cuisine of its own. The practical component complements the study of ingredients indigenous to Australia and provides students with opportunities to extend and share their research into a selected cuisine brought by migrants.

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

Unit 2: Food makers

In this unit students investigate food systems in contemporary Australia.

Area of Study 1 Food industries

In this area of study students focus on commercial food production in Australia, encompassing primary production and food processing and manufacturing, and the retail and food service sectors. Students apply an inquiry approach, with emphasis on the ever-changing and dynamic nature of our food industries and their ongoing importance to Australia's economy. Students investigate the characteristics of the various food industries and identify current and future challenges and opportunities. They consider the influences on food industries, and in turn how they influence people. Students investigate new food product development and innovation, and the processes in place to ensure a safe food supply. Students undertake a practical component, creating new food products using design briefs, and applying commercial principles such as research, design, product testing, production, evaluation and marketing.

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

Area of Study 2 Food in the home

In this area of study students further explore food production, focusing on domestic and small-scale food production. Students compare similar products prepared in different settings and evaluate them using a range of measures. They consider the influences on the effective provision and preparation of food in the home. Their practical skills are extended through designing and adapting recipes, encompassing a range of dietary requirements commonly encountered by the food service sector and within families. Students propose and test ideas for applying their food skills to entrepreneurial projects that potentially may move their products from a domestic or small-scale setting to a commercial context.

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

Assessment

School Assessed Coursework
Production work and records of production
Practical tasks
Short written reports.

Essential Equipment

Textbook as shown on booklist.

Subject Material Charge

\$60.00 per semester* note this could change in 2018

DESIGN AND TECHNOLOGY TEXTILES

UNIT 1: PRODUCT REDESIGN AND SUSTAINABILITY

In this unit, students are introduced to the product design process, information technology and the product design factors with an emphasis on materials and sustainability. They look at methods used by designers to design a product and apply similar processes to document the redesigning of an existing garment. They produce the redesigned garment and compare their finished product with the original design.

Assessment: Folio: 40%
Garment production: 40%
Evaluation: 20%

UNIT 2: COLLABORATIVE DESIGN

In this unit, students work individually and in teams to design and develop an item in a product range or contribute to the design, planning and production of a group product.

Assessment: Folio: 30%
Garment production: 40%
Evaluation and journal: 30%

GEOGRAPHY

Unit 1: Hazards and disasters

In this unit students undertake an overview of hazards before investigating two contrasting types of hazards and the responses to them by people. Hazards represent the potential to cause harm to people and or the environment whereas disasters are judgments about the impacts of hazard events. Hazards include a wide range of situations including those within local areas, such as fast moving traffic or the likelihood of coastal erosion, to regional and global hazards such as drought and infectious disease. Students examine the processes involved with hazards and hazard events, including their causes and impacts, human responses to hazard events and interconnections between human activities and natural phenomena. This unit investigates how people have responded to specific types of hazards, including attempts to reduce vulnerability to, and the impact of, hazard events. Types of hazards are commonly classified by their causes: • geological (or geophysical) hazards include volcanic activity, erosion, earthquakes, tsunamis, landslides and avalanches • hydro-meteorological (weather, climate, water) hazards include droughts, floods, storms, storm surges and bushfires • biological hazards include infectious diseases such as HIV/AIDS and malaria, animal transmitted diseases, water borne diseases, and plant and animal invasion such as blackberries and cane toads in Australia • technological hazards are human induced

and exacerbated hazards including oil spills, air pollution, radiation leaks, flooding primarily caused by land clearances, epidemics caused by poor living conditions and hazards caused by current climate change such as rising sea levels or increased intensification of weather events. There may be considerable interconnection between the causes and types of hazards. For example, a region may be at risk from a number of hazards: high seasonal rainfall may result in a primary flood hazard which may in turn generate a secondary hazard of landslides. Students undertake fieldwork in this unit and report on fieldwork using the structure provided

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain the nature of hazards and impacts of hazard events at a range of scales.

Outcome 2

On completion of this unit the student should be able to analyse and explain the nature, purpose and effectiveness of a range of responses to selected hazards and disasters.

Unit 2: Tourism

In this unit students investigate the characteristics of tourism, with particular emphasis on where it has developed, its various forms, how it has changed and continues to change and its impacts on people, places and environments. They select contrasting examples of tourism from within Australia and elsewhere in the world to support their investigations. Tourism involves the movement of people travelling away from and staying outside of their usual environment for more than 24 hours but not more than one consecutive year (United Nations World Tourism Organization definition). Over one billion tourists a year cross international boundaries with greater numbers involved as domestic tourists within their own countries. The Asia and the Pacific hosts 23 per cent of international arrivals. The scale of tourist movements since the 1950s and its predicted growth has had and continues to have a significant impact on local, regional and national environments, economies and cultures. The travel and tourism industry is directly responsible for one in every twelve jobs globally and generates around 5 per cent of its GDP. (UNTWO Annual Reports 2011–2013). The study of tourism at local, regional and global scales emphasises the interconnection within and between places. For example, the interconnections of climate, landforms and culture help determine the characteristics of a place that can prove attractive to tourists. There is an interconnection between places tourists originate from and their destinations through the development of communication and transport infrastructure, employment, together with cultural preservation and acculturation. The growth of tourism at all scales requires careful management to ensure environmentally sustainable and economically viable tourism. Students undertake fieldwork in this unit and report on fieldwork using the structure provided

Outcome 1

On completion of this unit the student should be able to analyse, describe and explain the nature of tourism at a range of scales.

Outcome 2

On completion of this unit the student should be able to analyse and explain the impacts of tourism on people, places and environments and evaluate the effectiveness of strategies for managing tourism

HEALTH & HUMAN DEVELOPMENT

Unit 1:

Understanding health and wellbeing This unit looks at health and wellbeing as a concept with varied and evolving perspectives and definitions. It takes the view that health and wellbeing are subject to a wide range of contexts and interpretations, with different meanings for different people. As a foundation to the understanding of health, students should investigate the World Health Organization's (WHO) definition and also explore other interpretations. Wellbeing is a complex combination of all dimensions of health, characterised by an equilibrium in which the individual feels happy, healthy, capable and engaged. For the purposes of this study, students should consider wellbeing to be an implicit element of health. In this unit students identify personal perspectives and priorities relating to health and wellbeing, and enquire into factors that influence health attitudes, beliefs and practices, including among Aboriginal and Torres Strait Islanders. Students look at multiple dimensions of health and wellbeing, the complex interplay of influences on health and wellbeing and the indicators used to measure and evaluate health status. With a focus on youth, students consider their own health as individuals and as a cohort. They build health literacy through interpreting and using data, through investigating the role of food, and through extended inquiry into one youth health focus area.

Area of Study 1:

Health perspectives and influences.

Outcome 1:

On completion of this unit the student should be able to explain multiple dimensions of health and wellbeing, explain indicators used to measure health status and analyse factors that contribute to variations in health status of youth.

Area of Study 2:

Health and nutrition

Outcome 2:

On completion of this unit the student should be able to apply nutrition knowledge and tools to the selection of food and the evaluation of nutrition information.

Area of Study 3:

Youth health and wellbeing

Outcome 3:

On completion of this unit the student should be able to interpret data to identify key areas for improving youth health and wellbeing, and plan for action by analysing one particular area in detail.

Unit 2: Managing health and development

This unit investigates transitions in health and wellbeing, and development, from lifespan and societal perspectives. Students look at changes and expectations that are part of the progression from youth to adulthood. This unit promotes the application of health literacy skills through an examination of adulthood as a time of increasing independence and responsibility, involving the establishment of long-term relationships, possible considerations of parenthood and management of health-related milestones and changes.

Area of Study 1:

Developmental transitions.

Outcome 1:

On completion of this unit the student should be able to explain developmental changes in the transition from youth to adulthood, analyse factors that contribute to healthy development during prenatal and early childhood stages of the lifespan and explain health and wellbeing as an intergenerational concept.

Area of Study 2:

Health care in Australia

Outcome 2:

On completion of this unit the student should be able to describe how to access Australia's health system, explain how it promotes health and wellbeing in their local community, and analyse a range of issues associated with the use of new and emerging health procedures and technologies.

HISTORY: TWENTIETH-CENTURY

UNIT 1: 1918-1939

Students explore the nature of political, social and cultural change in the period between the world wars. World War One is regarded by many as marking the beginning of twentieth century history since it represented such a complete departure from the past and heralded changes that were to have an impact for decades to come.

The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political economic and social changes.

Areas of Study

- 1. Ideology and Conflict**
- 2. Social and cultural change**

Outcome 1

On completion of this unit the student should be able to explain the consequences of the peace treaties which ended World War One, the impact of ideologies on nations and the events that led to World War Two.

Outcome 2

On completion of this unit the student should be able to explain patterns of social life and cultural change in one or more contexts, and analyse the factors which influenced changes to social life and culture, in the inter-war years.

UNIT 2: 1945-2000

In Unit 2 students explore the nature and impact of the Cold War and challenges and changes to existing political, economic and social arrangements in the second half of the twentieth century.

Areas of Study

1. Competing Ideologies
2. Challenge & Change

Outcome 1

On completion of this unit the student should be able to explain the ideological divisions in the post-war period and analyse the nature, development and impact of the Cold War on nations and people, in relation to one or more particular conflicts in the period.

Outcome 2

On completion of this unit the student should be able to explain the causes and nature of challenge and change in relation to two selected contexts in the second half of the twentieth century and analyse the consequences for nations and people.

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

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

COMPUTING

UNIT 1: COMPUTING

In this unit students focus on how data, information and networked digital systems can be used to meet a range of users' current and future needs.

Areas of Study:

Data and graphic solutions: students collect primary data and create a digital solution that graphically presents the findings of the investigation.

Networks: students examine the technical underpinnings of wireless and mobile networks, and security controls to protect stored and transmitted data, to design a network solution that meets an identified need or opportunity. They predict the impact on users if the network solution were implemented.

Collaboration and communication: students acquire and apply their knowledge of information architecture and user interfaces, together with web authoring skills, to present different viewpoints on a contemporary issue.

UNIT 2: COMPUTING

In this unit students focus on data and how the application of computational, design and systems thinking skills support the creation of solutions that automate the processing of data.

Areas of Study:

Programming: students develop their computational thinking skills when using a programming or scripting language to create solutions. They engage in the design and development stages of the problem-solving methodology.

Data analysis and visualisation: students develop a sound understanding of data and how a range of software tools can be used to extract data from large repositories and manipulate it to create visualisations that are clear, usable and attractive, and reduce the complexity of data.

Data management: students apply all stages of the problem-solving methodology to create a solution using database management software and explain how they are personally affected by their interactions with a database system.

LEGAL STUDIES

Unit 1: Guilt and liability

Criminal law and civil law aim to achieve social cohesion and protect the rights of individuals. Criminal law is aimed at maintaining social order and infringing criminal law can result in charges. Civil law deals with the infringement of a person's or group's rights and breaching civil law can result in litigation. In this unit students develop an understanding of legal foundations, such as the different types and sources of law and the existence of a court hierarchy in Victoria. Students investigate key concepts of criminal law and civil law and apply these to actual and/or hypothetical scenarios to determine whether an accused may be found guilty of a crime, or liable in a civil dispute. In doing so, students develop an appreciation of the way in

which legal principles and information are used in making reasoned judgments and conclusions about the culpability of an accused, and the liability of a party in a civil dispute.

Outcome 1

On completion of this unit the student should be able to describe the main sources and types of law, and assess the effectiveness of laws.

Outcome 2

On completion of this unit the student should be able to explain the purposes and key concepts of criminal law, and use legal reasoning to argue the criminal culpability of an accused based on actual and/or hypothetical scenarios.

Outcome 3

On completion of this unit the student should be able to explain the purposes and key concepts of civil law, and apply legal reasoning to argue the liability of a party in civil law based on actual and/or hypothetical scenarios.

Unit 2: Sanctions, remedies and rights

Criminal law and civil law aim to protect the rights of individuals. When rights are infringed, a case or dispute may arise which needs to be determined or resolved, and sanctions or remedies may be imposed. This unit focuses on the enforcement of criminal law and civil law, the methods and institutions that may be used to determine a criminal case or resolve a civil dispute, and the purposes and types of sanctions and remedies and their effectiveness. Students undertake a detailed investigation of two criminal cases and two civil cases from the past four years to form a judgment about the ability of sanctions and remedies to achieve the principles of justice. Students develop their understanding of the way rights are protected in Australia and in another country, and possible reforms to the protection of rights. They examine a significant case in relation to the protection of rights in Australia.

Outcome 1

On completion of this unit the student should be able to explain key concepts in the determination of a criminal case, and discuss the principles of justice in relation to the determination of criminal cases, sanctions and sentencing approaches.

Outcome 2

On completion of this unit the student should be able to explain key concepts in the resolution of a civil dispute, and discuss the principles of justice in relation to the resolution of civil disputes and remedies.

Outcome 3

On completion of this unit the student should be able to evaluate the ways in which rights are protected in Australia, compare this approach with that adopted by another country and discuss the impact of an Australian case on the rights of individuals and the legal system.

Units 1&2: Assessment Tasks

- Structured assignment
- Essay
- Folio and Report
- Case Studies
- Mock court or role play
- Tests
- Examination.

LITERATURE

Unit 1: Approaches to Literature

COURSE OUTLINE: Focuses on the ways in which the interaction between text and reader creates meaning. Students respond in a variety of ways to question and consider the ideas and concerns in texts, through investigation of literary features and conventions.

Understanding of texts is further developed through the analysis of and response to literary criticism.

ASSESSMENT:

1. Oral presentation
2. Folio of responses
3. Analysis of literary criticism
4. Examination

OUTCOMES:

1. Respond to a range of texts and reflect on influences shaping these responses.
2. Analyse the ways in which a selected text reflects or comments on the ideas and concerns of individuals and particular groups in society.

Unit 2: Context and Connections

COURSE OUTLINE: Focuses on the ways literary texts connect with each other and with the world. Students consider the relationships between authors, audiences and contexts. Ideas, language and structures of different texts from past and present eras and/or cultures are compared and contrasted through close analysis.

ASSESSMENT:

1. Creative and critical response
2. Comparative response
3. Close analysis
4. Examination

OUTCOMES:

1. Analyse and respond critically and creatively to the ways a text from a past era and/or a different culture reflect or comment on the ideas and concerns of individuals and groups in that context.
2. Compare texts considering the dialogic nature of texts and how they influence each other.

MATHEMATICS

Students should take particular care when selecting Mathematics Units at 1 and 2 level as these place restrictions on the Mathematics Units which can be studied at level 3 and 4. Discussion with your Mathematics teacher should help you in your decision-making.

GENERAL MATHEMATICS UNITS 1 AND 2

This subject is intended to provide courses of study for quite diverse groups of students. General Mathematics Units 1 and 2 may be taken alone or with Mathematical Methods Units 1 and 2. It contains assumed knowledge for related material in Further Mathematics Units 3 and 4. It is strongly recommended, in addition to Mathematical Methods Units 1 and 2, as preparation for Specialist Mathematics Units 3 and 4.

Areas of study

1 ALGEBRA AND STRUCTURE

Linear relations and equations

2 ARITHMETIC AND NUMBER

Computation and practical arithmetic

Financial arithmetic

3 DISCRETE MATHEMATICS

Matrices

Graphs and networks

Number patterns and recursion

4 GEOMETRY, MEASUREMENT AND TRIGONOMETRY

Shape and measurement

Applications of trigonometry

5 GRAPHS OF LINEAR AND NON-LINEAR RELATIONS

Linear graphs and models

Inequalities and linear programming

Variation

6 STATISTICS

Investigating and comparing data distributions

Investigating relationships between two numerical variables

Assessment

Demonstration of achievement of **Outcome 1** should be based on the student's performance on a selection of the following assessment tasks:

- assignments
- tests
- summary notes.

Demonstration of achievement of **Outcome 2** should be based on the student's performance on a selection of the following assessment tasks:

- modelling tasks
- problem-solving tasks
- mathematical investigations.

Demonstration of achievement of **Outcome 3** should be based on the student's performance on aspects of tasks completed in demonstrating achievement of Outcomes 1 and 2 that incorporate opportunity for the effective and appropriate use of technology. At William Ruthven Secondary College the technology used to meet Outcome 3 is the Ti-Nspire CAS CX Calculator. This calculator is allowed in most assessments and exams for Units 1 and 2 General Mathematics. Students require this calculator to pass Outcome 3.

MATHEMATICAL METHODS UNITS 1 AND 2 (CAS)

Areas of study

1 FUNCTIONS AND GRAPHS

Functions and graphs

Circular functions

Exponential and logarithmic functions

2 ALGEBRA

Algebra and equations

Transformations of functions

Polynomials

Logarithm laws

Equations

3 CALCULUS

Rate of change

Gradient of a tangent

Differentiation by first principles

Applications of differentiation

Antidifferentiation

4 PROBABILITY AND STATISTICS

Probability

Counting in probability

Outcomes for Units 1 and 2 will be assessed through a variety of tasks, which include the following; assignments, tests, summary reviews and notes, projects, short written responses, problem-solving tasks, modelling tasks and exams.

Entry

There are no pre-requisites for entry into any Units 1 and 2 in Mathematics, however students attempting Mathematical Methods, are expected to have a sound background in algebra, functions and probability.

FURTHER MATHEMATICS UNIT 3 AND 4

Units 3 & 4 are only available to students who have completed General Mathematics units 1 and 2 in Year 10.

Areas of study

1 CORE

Data analysis

- Investigating data distributions
- Investigating associations between two variables
- Investigating and modelling linear associations
- Investigating and modelling time series data

Recursion and financial modelling

- Depreciation of assets
- Compound interest investment and loans
- Reducing balance loans
- Annuities and perpetuities
- Compound interest investment with periodic and equal additions to the principal

2 MODULES

Matrices

- Matrices and their applications
- Transition matrices

Networks and decision mathematics

- Graphs and networks
- Exploring and travelling problems
- Trees and minimum connector problems
- Flow problems
- Shortest path problems
- Matching problems
- The scheduling problem and critical path analysis

Geometry and measurement

- Measurement and trigonometry
- Spherical geometry

Graphs and relations

- Construction and interpretation of graphs
- Linear programming

Throughout the course, students will be expected to use graphical calculators, spreadsheets or statistical software.

FOUNDATION MATHS UNITS 1 AND 2

Foundation Maths is suitable for students who will not be studying Units 3 and 4 VCE Maths. Please note that Foundation Maths terminates at the end of Unit 2, so is **not appropriate for students who require maths as a prerequisite for their tertiary study.**

Areas of Study

1. Space, shape and design

A study of geometry and graphical representations with focus on maps, blueprints and diagrams.

2. Patterns and number

A revision and extension of number facts and skills such as application of decimals, fractions and percentages.

3. Data

The study of collecting, representing and interpreting data sets.

4. Measurement

The use and application of the metric system and related use of measurements in a variety of contexts, including consideration of accuracy.

Assessment

Assessments include a variety of projects and tests.

MEDIA

The media has significant impact on people's lives. They influence the way people spend their time, help shape the way they perceive themselves and others, and play a crucial role in the creation of personal, social, cultural and national identity.

The study of media includes:

- Media forms including – audiovisual media (film, television, radio, video, photography)
- Print-based media (newspapers, magazines and related publications)
- Digital media technologies (the Internet, computer games and interactive multimedia)
- Media and cross media processes and developments such as advertising, news and current affairs production, popular music, popular culture, cyberculture and virtual worlds, convergence and hybridization, information dissemination and retrieval technologies
- The media and its inter-relationship with society and culture.

Structure

Unit 1: Media forms, representations and Australian stories

Unit 2: Narrative across media forms

UNIT 1

Students are introduced to the concept of audience and what it entails. They consider how audiences engage with the media to construct understandings of the world and themselves. Students work in two or more media forms to design and create media exercises or productions that represent concepts covered in class. They analyse Australian fiction and non-fiction in stories.

UNIT 2

In this unit students further develop an understanding of the concept of narrative in media products and forms in different contexts. Narratives in both traditional and newer forms include film, television, sound, news, print, photography, games, and interactive digital forms. They develop and produce narratives of their own.

Entry

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

Assessment

Satisfactory Completion: demonstrated achievement of outcomes specified for the unit.

Outcomes can be completed as, audio-visual or video sequences, radio or audio sequences, photographs, print layouts, sequences or presentations using digital technologies, posters, written responses and oral reports.

PHYSICAL EDUCATION

Unit 1: The human body in motion

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

Area of Study 1

How does the musculoskeletal system work to produce movement?

In this area of study students examine the musculoskeletal system of the human body and how the muscles and bones work together to produce movement. Through practical activities they explore the major components of the musculoskeletal system and their contributions and interactions during physical activity, sport and exercise. Students evaluate the social, cultural and environmental influences on movement, and how the capacity and functioning of the muscular and skeletal systems may act as an enabler or barrier to participation in physical activity. Sedentary behaviour, overtraining and participation at the elite and recreational level are investigated as possible causes of illness and injury to the musculoskeletal system. Students consider a variety of legal and illegal practices and substances used to enhance performance from an ethical and a biophysical perspective.

Area of Study 2

How does the cardiorespiratory system function at rest and during physical activity?

In this area of study students examine the cardiovascular and respiratory systems of the human body and how the heart, blood vessels and lungs function at rest and during physical activity. Through practical activities students explore the structure and function of the cardiorespiratory system and their contributions and interactions during physical activity, sport and exercise. Enablers and barriers to the capacity and functioning of the cardiovascular and respiratory systems are investigated from a sociocultural, environmental and physical perspective. Students explore the ethical and performance considerations of the use of a variety of legal and illegal practices and substances specific to each system.

Unit 2: Physical activity, sport and society

This unit develops students' understanding of physical activity, sport and society from a participatory perspective. Students are introduced to types of physical activity and the role participation in physical activity and sedentary behaviour plays in their own health and wellbeing as well as in other people's lives in different population groups. Through a series of practical activities, students experience and explore different types of physical activity promoted in their own and different population groups. They gain an appreciation of the level of physical activity required for health benefits. Students investigate how participation in physical activity varies across the lifespan. They explore a range of factors that influence and facilitate participation in regular physical activity. They collect data to determine perceived enablers of and barriers to physical activity and the ways in which opportunities for participation in physical activity can be extended in various communities, social, cultural and environmental contexts. Students investigate individual and population-based consequences of physical inactivity and sedentary behaviour. They then create and participate in an activity plan that meets the physical activity and sedentary behaviour guidelines relevant to the particular population group being studied. Students apply various methods to assess physical activity and sedentary behaviour levels at the individual and population level, and analyse the data in relation to physical activity and sedentary behaviour guidelines. Students study and apply the social-ecological model and/or the Youth Physical Activity Promotion Model to critique a range of individual- and settings-based strategies that are effective in promoting participation in some form of regular physical activity.

Area of Study 1

What are the relationships between physical activity, sport, health and society?

In this area of study students focus on the role of physical activity, sport and society in developing and promoting healthy lifestyles and participation in physical activity across the lifespan. Students explore the social, cultural and historical influences on participation in various forms of physical activity, including sport. They investigate at the individual and population levels the physical, social, mental and emotional benefits of participation in regular physical activity and the potential negative physical, social, mental and emotional consequences of physical inactivity and sedentary behaviour, including hypokinetic diseases such as Type 2 diabetes and obesity. Students investigate sociocultural factors that influence physical activity and consider opportunities and barriers to participation for various population groups and settings. They develop an understanding of the use of subjective and objective methods for assessing physical activity and sedentary behaviour at the individual and population level and compare these to physical activity and sedentary behaviour guidelines. Students identify and describe the components of a social-ecological model and/or the Youth Physical Activity Promotion Model to assist in the critique and creation of strategies aimed at increasing physical activity and/or reducing sedentary behaviour within a given population. Students create and implement an individual activity plan that meets the physical activity and sedentary behaviour guidelines.

Area of Study 2

What are the contemporary issues associated with physical activity and sport?

In this area of study students focus on a range of contemporary issues associated with physical activity and/or sport at the local, national and global level. They investigate in detail one issue relevant to physical activity and/or sport. Possible issues suitable for investigation include declining levels of physical activity across the lifespan, active transport, gender equity in physical activity and sport, cultural diversity and inclusion in physical activity, risk management and safety in physical activity and sport, children and competitive sport, the community and recreation, access to physical activity for population groups such as children, rural and remote communities, cultural groups, Aboriginal and Torres Strait Islanders and people with disabilities. Students select and explore one issue from a social-ecological perspective to evaluate the affect of individual, social, policy and physical environmental factors on participation in physical activity. Students develop an understanding of the historical, and current perspectives of the issue and forecast future trends. They form conclusions in relation to the impact these factors have on physical activity and sport in society

.PHYSICS

Unit 1: What ideas explain the physical world?

Ideas in physics are dynamic. As physicists explore concepts, theories evolve. Often this requires the detection, description and explanation of things that cannot be seen. In this unit students explore how physics explains phenomena, at various scales, which are not always visible to the unaided human eye. They examine some of the fundamental ideas and models used by physicists in an attempt to understand and explain the world. Students consider thermal concepts by investigating heat, probe common analogies used to explain electricity and consider the origins and formation of matter.

Students use thermodynamic principles to explain phenomena related to changes in thermal energy. They apply thermal laws when investigating energy transfers within and between systems, and assess the impact of human use of energy on the environment. Students examine the motion of electrons and explain how it can be manipulated and utilised. They explore current scientifically accepted theories that explain how matter and energy have changed since the origins of the Universe. Students undertake quantitative investigations involving at least one independent, continuous variable.

Students 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?

For this unit students are required to demonstrate achievement of three outcomes. As a set these outcomes encompass all areas of study.

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

This unit focuses on the application of models to more complex phenomena – motion and light – developed within contexts that are familiar to students and relevant to their experiences. Newtonian ideas of motion are extended to include a range of movements and more abstract ideas, while the wave and particle models of light provide a framework for exploring light phenomena in real world applications. The detailed studies provide opportunities to explore motion and/or light in nuclear, sustainable energy, flight, space and medical contexts.

Students study:

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

Area of study 2: Options

Twelve options are available for selection in Area of Study 2. Each option is based on a different observation of the physical world. One option will be selected from the following.

Option 2.1: What are stars?

- Option 2.2: Is there life beyond Earth's Solar System?
- Option 2.3: How do forces act on the human body?
- Option 2.4: How can AC electricity charge a DC device?
- Option 2.5: How do heavy things fly?
- Option 2.6: How do fusion and fission compare as viable nuclear energy power sources?
- Option 2.7: How is radiation used to maintain human health?
- Option 2.8: How do particle accelerators work?
- Option 2.9: How can human vision be enhanced?
- Option 2.10: How do instruments make music?
- Option 2.12: How does the human body use electricity?

Area of study 3: Practical investigation

The investigation requires the student to develop a question, plan a course of action that attempts to answer the question, undertake an investigation to collect the appropriate primary qualitative and/or quantitative data, organise and interpret the data, and reach a conclusion in response to the question. The student designs and undertakes an investigation involving two independent variables one of which should be a continuous variable. A practical logbook must be maintained by the student for recording, authentication and assessment purposes.

For this unit students are required to demonstrate achievement of three outcomes. As a set these outcomes encompass all areas of study.

PSYCHOLOGY Unit 1 and Unit 2

Psychology is a broad discipline that incorporates both the scientific study of human behaviour through biological, psychological and social perspectives and the systematic application of this knowledge to personal and social circumstances in everyday life.

Unit 1: How are behaviour and mental processes shaped?

Area of Study 1: How does the brain function?

Outcome 1 On completion of this unit the student should be able to describe how understanding of brain structure and function has changed over time, explain how different areas of the brain coordinate different functions, and explain how brain plasticity and brain damage can change psychological functioning.

Area of Study 2: What influences psychological development?

Outcome 2 On completion of this unit the student should be able to identify the varying influences of nature and nurture on a person's psychological development, and explain different factors that may lead to typical or atypical psychological development.

Area of Study 3: Student-directed research investigation

Outcome 3 On completion of this unit the student should be able to investigate and communicate a substantiated response to a question related to brain function and/or development, including reference to at least two contemporary psychological studies and/or research techniques.

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

Area of Study 1: What influences a person's perception of the world?

Outcome 1 On completion of this unit the student should be able to compare the sensations and perceptions of vision and taste, and analyse factors that may lead to the occurrence of perceptual distortions.

Area of Study 2: How are people influenced to behave in particular ways?

Outcome 2 On completion of this unit the student should be able to identify factors that influence individuals to behave in specific ways, and analyse ways in which others can influence individuals to behave differently.

Area of Study 3: Student-directed practical investigation.

Outcome 3 On completion of this unit the student should be able to design and undertake a practical investigation related to external influences on behaviour, and draw conclusions based on evidence from collected data.

PSYCHOLOGY Unit 3 and Unit 4

Units 3 & 4 are only available to students who have completed Psychology units 1 and 2 in Year 10.

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

Area of Study 1: How does the nervous system enable psychological functioning?

Outcome 1 On completion of this unit the student should be able to explain how the structure and function of the human nervous system enables a person to interact with the external world and analyse the different ways in which stress can affect nervous system functioning.

Area of Study 2: How do people learn and remember?

Outcome 2 On completion of this unit the student should be able to apply biological and psychological explanations for how new information can be learnt and stored in memory, and provide biological, psychological and social explanations of a person's inability to remember information.

Unit 4: How is wellbeing developed and maintained?

Area of Study 1: How do levels of consciousness affect mental processes and behaviour?

Outcome 1 On completion of this unit the student should be able to explain consciousness as a continuum, compare theories about the purpose and nature of sleep, and elaborate on the effects of sleep disruption on a person's functioning.

Area of Study 2: What influences mental wellbeing?

Outcome 2 On completion of this unit the student should be able to explain the concepts of mental health and mental illness including influences of risk and protective factors, apply a biopsychosocial approach to explain the development and management of specific phobia, and explain the psychological basis of strategies that contribute to mental wellbeing.

Area of Study 3: Practical investigation

Outcome 3 On completion of this unit the student should be able to design and undertake a practical investigation related to mental processes and psychological functioning, and present methodologies, findings and conclusions in a scientific poster.

STUDIO ARTS

Unit One

In this unit students focus on developing an individual understanding of the stages of studio practice and learn how to explore, develop, refine, resolve and present artworks. Students explore sources of inspiration, research artistic influences, develop individual ideas and explore a range of materials and techniques related to specific art forms. Using documented evidence in a visual diary, students progressively refine and resolve their skills to communicate ideas in artworks.

Area of Study 1- Researching and recording ideas

Area of Study 2- Studio practice

Area of Study 3- Interpreting art ideas and use of materials and techniques

Unit Two

In this unit students focus on establishing and using a studio practice to produce artworks. The studio practice includes the formulation and use of an individual approach to documenting sources of inspiration, and experimentation with selected materials and techniques relevant to specific art forms. Students explore and develop ideas and subject matter, create aesthetic qualities and record the development of the work in a visual diary as part of the studio process.

Through the study of art movements and styles, students begin to understand the use of other artists' work in the making of new artworks. Students also develop skills in the visual analysis of artworks. Artworks made by artists from different times and cultures are analysed to understand developments in studio practice. Using a range of art periods, movements or styles, students develop a broader knowledge about the history of art. Analysis is used to understand the artists' ideas and how they have created aesthetic qualities and subject matter

Area of Study 1- Exploration of studio practice and development of artworks

Area of Study 2- Ideas and styles in artworks

VISUAL COMMUNICATION AND DESIGN

What this subject will help you with:

In Visual communication, you are being prepared for industry guidelines in the form of advertising for audiences, and creating innovative products for a variety of art/design businesses. These include areas such as:

- Graphic Design
- Architecture
- Animation and Games
- Advertising
- Film Production
- Illustration
- Fashion Design

UNIT 1: INTRODUCTION TO VISUAL COMMUNICATION DESIGN

This unit focuses on using visual images to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to create messages, ideas and concepts, both visible and tangible. Students practise their ability to draw what they observe and they use visualisation drawing methods to explore their own ideas and concepts. Students develop an understanding of the importance of presentation drawings to clearly communicate their final visual communications.

Area of Study 1 Drawing as a means of communication

Area of Study 2 Design elements and design principles

Area of Study 3 Visual communications in context

UNIT 2: Applications of visual communication within design fields

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

design fields. Students use presentation drawing methods that incorporate the use of technical drawing conventions to communicate information and ideas associated with the environmental or industrial fields of design. They also investigate how typography and imagery are used in these fields as well as the communication field of design. and development and refinement of concepts to create visual communications.

Area of Study 1 Technical drawing in context

Area of Study 2 Type and imagery in context

Area of Study 3 Applying the design process

Unit 1&2: Music Performance

These units focus on building students' performance and musicianship skills to present performances of selected group and solo music works using one or more instruments. They study the work of other performers and explore strategies to optimise their own approach to performance. They identify technical, expressive and stylistic challenges relevant to works they are preparing for performance and endeavour to address these challenges. Students develop their listening, aural, theoretical and analytical musicianship skills and apply this knowledge when preparing and presenting performances.

Area of Study 1-Performance

In this area of study students prepare performances by selecting, researching and learning solo and group works

Outcome 1: On completion of this unit the student should be able to prepare and perform a program of group and solo works.

Area of Study 2-Preparing for performance

This area of study focuses on developing students' capabilities to present musically engaging and technically competent group and solo performances.

Outcome 2: On completion of this unit the student should be able to demonstrate and discuss techniques relevant to the performance of selected works.

Area of Study 3-Music language

This area of study focuses on developing understanding of music language used for interpretation and critical listening.

Outcome 3: On completion of this unit the student should be able to identify, re-create, extend and notate music language components and short phrases, and describe ways elements of music may be interpreted.

Area of Study 4-Organisation of sound (Unit 2 only)

This area of study focuses on creating original work as a composition or an improvisation informed by analysis of a work/s being prepared for performance.

Outcome 4: On completion of this unit the student should be able to devise a composition or an improvisation that uses music language evident in work/s being prepared for performance.

Assessment Tasks

- performances of at least three works; including at least one group work and one solo work with accompaniment
- demonstration of material chosen to address challenges in performance of works
- explanation of how selected material supports the student's development as an instrumentalist and pieces chosen (aural or multimedia)
- aural, written and practical tasks including; folio of exercises, structured questions, workbook of class activities
- composition or an improvisation and accompanying documentation that describes use of music language in the exercises (aural or multimedia)

DRAMA

Unit 1: Dramatic storytelling

This unit also involves analysis of a student's own performance work and of a performance by professional drama practitioners.

Unit 2: Non-naturalistic Australian drama

This unit focuses on the use and documentation of the processes involved in constructing a devised solo or ensemble performance that uses non-naturalistic performance styles.

Area of study 1-Creating a devised performance/ Using Australia as inspiration

Outcome 1: On completion of this unit the student should be able to devise and document solo and/or ensemble drama work/s.

AREA OF STUDY 2-Presenting a devised performance

Outcome 2: On completion of this unit the student should be able to perform a devised drama work/s to an audience.

AREA OF STUDY 3-Analysing a devised performance

Outcome 3: On completion of this unit the student should be able to analyse the development and performance to an audience of their devised work.

AREA OF STUDY 4-Analysing drama performances presented by other practitioners

Outcome 4: On completion of this unit the student should be able to analyse the portrayal of stories and characters in a drama performance by professional or other drama practitioners.

Assessment Tasks:

Outcome 1

- demonstrate the use of play-making techniques to devise and rehearse a solo and/or ensemble drama work/s based on stories and/or characters
- document use of processes to create and develop stories and characters in drama. The documentation may be presented as: – a paper-based journal – an e-journal – a journal that combines hard and soft copy components.

Outcome 2

- Perform a solo and/or ensemble devised drama work/s that features stories and characters.

Outcome 3

- Analyse the drama work created and performed in Outcomes 1 and 2 in one of the following formats:
 - a written report
 - an oral presentation
 - a multimedia presentation
 - responses to structured questions.

Outcome 4

- Write an analysis in one of the following formats:
 - a written report
 - responses to structured questions

INITIAL EXPRESSION OF INTEREST: YEAR 11

Students are to read over the subject descriptions and following discussions with their parents/ carers are to outline which subjects they wish to study in year 11.

In week four of Term Three, Students will then select their **initial** elective choices using Web Choice on the internet. Students will be given a unique password by their coordinator to allow access.

The Web Choice selection process will be conducted in an interview. (Time to be advised) After which students are required to print their initial selections, parents are required to sign the form. Students must bring the form to school and hand in to the Senior School office by Monday 14th August.

You must choose English. You can only pick one (1) Unit 3 & 4 sequence. You may only pick a Unit 3 & 4 sequence if you have successfully completed Units 1 & 2 in that subject and a teacher recommendation supports this decision.

The final confirmation of subjects will occur following the VCE Information Evening on **Wednesday 2nd AUGUST 2017** during an interview with your Course Counsellor on **Thursday 10th AUGUST 2017**.

William Ruthven Secondary College

Peter Pan (Test student) Yr11

Initial expression of interest

	Subject	Units
English	English	2
Priority 2	Literature	2
Priority 3	Further Maths Unit 3 and 4	2
Priority 4	Geography	2
Priority 5	Studio Arts	2
Priority 6	Legal Studies	2
Total Units		12
Reserve 1	Business Management	2
Reserve 2	Psychology	2

Your subjects will be confirmed on the counselling day in term 3
Initial selection only. Some subjects may not run because of numbers