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</table>

Contact List

<table>
<thead>
<tr>
<th>Senior Coordinators</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-12 Team Leader</td>
<td><a href="mailto:daff.jamie.b@edumail.vic.gov.au">daff.jamie.b@edumail.vic.gov.au</a></td>
</tr>
<tr>
<td>Assistant Principal</td>
<td><a href="mailto:bovell.peter.p@edumail.vic.gov.au">bovell.peter.p@edumail.vic.gov.au</a></td>
</tr>
<tr>
<td>VCE/VCAL Coordinator</td>
<td><a href="mailto:mcmillan.stacey.r@edumail.vic.gov.au">mcmillan.stacey.r@edumail.vic.gov.au</a></td>
</tr>
<tr>
<td>Pathways Manager</td>
<td><a href="mailto:raglus.kerrie.l@edumail.vic.gov.au">raglus.kerrie.l@edumail.vic.gov.au</a></td>
</tr>
</tbody>
</table>
WELCOME TO THE SENIOR SCHOOL

Dear Parents and Students,

At Rushworth P-12 College, the Senior School consists of students enrolled in Years 9, 10, 11 and 12 and the staff who support these students. It is the aim of all Senior School staff to support students to facilitate a smooth transition to succeed in their final years of study and to life beyond school.

This document contains information about the Victorian Certificate of Education (VCE), Vocational Education and Training (VET) Certificates and Victorian Certificate of Applied Learning (VCAL) and the studies offered at Rushworth P-12 College in 2017.

Please read the information carefully before you begin to make decisions about the program and subjects you will be choosing.

The 2017 Subject Selection night will provide you with opportunities to receive further information and to discuss your options with staff who can guide you in your decisions. It is a good idea to keep the following considerations in mind as you think about your subjects for 2017:

**How well you are doing in this subject already?**

Your subject teacher can assist you here. Have a look at your past school reports. Choosing a subject you are already achieving in can be a good place to start.

**How much you enjoy or think you might like a subject?**

Read the descriptions contained in these pages and consult with the subject teachers. Find out what topics are covered and what assessment tasks are involved.

**What you are interested in as a tertiary course or career?**

See the Pathways Manager to find out if there are any prerequisites to gain entrance to a chosen course

At Rushworth P-12 College we make every effort to provide students with a wide range of subjects to select from. The final curriculum offerings will be based upon student preferences and staff availability.

We look forward to working with parents and students in the lead up to 2017 and beyond, to engage, and inspire in the “Pursuit of Excellence”.

Yours sincerely,

**Senior School Staff**
## IMPORTANT TIMELINES

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>27th July</td>
<td>2017 Subject Selection booklets to be distributed to students in Years 9 - 11</td>
</tr>
<tr>
<td>27th July</td>
<td>2017 Subject Selection Night: 6.00 - 7.00pm at Rushworth P-12 College.</td>
</tr>
<tr>
<td>1st Aug – 12th Aug</td>
<td>Students to book Subject selection interviews with Pathways Manager. Parents most welcome to be a part of the process.</td>
</tr>
<tr>
<td>1st Aug</td>
<td>VCAL Pathway – applications due to the Pathways Manager.</td>
</tr>
<tr>
<td>1st Aug</td>
<td>2017 Fast tracking application packs available from Pathways Manager</td>
</tr>
<tr>
<td>5th Aug</td>
<td>Fast Tracker applications due to the Pathways Manager</td>
</tr>
<tr>
<td>8th Aug – 10th Aug</td>
<td>VCAL Pathway Interviews take place with 9-12 Team Leader, VCE/VCAL Coordinator and Pathways Manager</td>
</tr>
<tr>
<td>11th Aug – 12th Aug</td>
<td>Fast Tracker interviews take place with 9-12 Team leader, VCE/VCAL Coordinator and Pathways Manager Coordinator</td>
</tr>
<tr>
<td>15th Aug</td>
<td>2017 Senior (9, 10 &amp; 11’s) subject selections due. Sheets to be handed to Pathways Manager</td>
</tr>
<tr>
<td>26th Aug</td>
<td>GOTAFE VET Applications close – students need to complete GOTAFE enrolment forms with the support of Pathways Manager</td>
</tr>
<tr>
<td>5th September</td>
<td>2017 VCE/VCAL classes confirmed</td>
</tr>
<tr>
<td>3rd October</td>
<td>Students &amp; Parents informed</td>
</tr>
</tbody>
</table>
THE VCE PROGRAM

The Victorian Certificate of Education (VCE) is a senior secondary certificate of education recognised within the Australian Qualifications Framework (AQF). It is designed to be completed over a minimum of two years, and includes general education curriculum components (VCE studies) and programs from Vocational Education and Training (VET) qualifications.

Each VCE study is designed to provide a two-year program. Studies at Unit 1 and Unit 2 level are nationally and internationally benchmarked to a Year 11 standard, and studies at Unit 3 and Unit 4 level are benchmarked to a Year 12 standard. In many studies there are multiple options for students to choose from, such as a choice of mathematics studies and histories. Units 1 and 2 can be completed as single units and Units 3 and 4 in each study are designed to be taken as a sequence.

Your VCE Program is the complete list of VCE units you will do over the next two years.
A VCE program must contain:

Units 1, 2, 3 and 4 of English

To qualify for the VCE you must *satisfactorily complete* a minimum of 16 units which must include:

At least 3 units of English Units 1, 2, 3 and 4 and
At least 3 sequences of Units 3 and 4 other than English

Students may apply to do a Units 3 and 4 study in Year 11
Students may choose a VET subject as part of their VCE program.

**ENROLMENT REQUIREMENTS:**

Entry into VCE is not automatic from Year 10 and students are reminded that standards of commitment are high and minimum standards need to be met.

*One of these is a minimum Attendance rate of 90%.*

**2017 VCE program to consist of:**

<table>
<thead>
<tr>
<th>Year 11</th>
<th>Year 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCE English (Units 1 &amp; 2)</td>
<td>VCE English (Units 3 &amp; 4)</td>
</tr>
<tr>
<td>VCE Mathematics (Units 1 &amp; 2)</td>
<td>VCE Subject (Unit 3 &amp; 4)</td>
</tr>
<tr>
<td>VCE Subject (Units 1 &amp; 2)</td>
<td>VCE Subject (Unit 3 &amp; 4)</td>
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<tr>
<td>VCE Subject (Units 1 &amp; 2)</td>
<td>VCE Subject (Unit 3 &amp; 4)</td>
</tr>
<tr>
<td>VCE Subject (Units 1 &amp; 2)</td>
<td>VCE Subject (Unit 3 &amp; 4)</td>
</tr>
<tr>
<td>VCE Subject (Units 1 &amp; 2)</td>
<td>VCE Subject (Unit 3 &amp; 4)</td>
</tr>
<tr>
<td>Or VET enrolment</td>
<td>Or VET enrolment</td>
</tr>
</tbody>
</table>

**ASSESSMENT**

The Victorian Certification of Education (VCE) is a two year certificate. The VCE will spread assessment over Years 11 and 12. Different methods of assessing students and their attainment of specified learning outcomes will give students the opportunity to develop and demonstrate a range of key knowledge and key skills.

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

**Units 1 and 2**

The award of “Satisfactorily Completion” for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit in the Study Design.

Procedures for the assessment of levels of achievement are determined by the College in accordance with the College’s satisfactory completion policy.
Units 3 and 4

The award of "Satisfactorily Completion" for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit in the Study Design. A student’s level of achievement will be determined by a combination of school assessed course work, tasks, and external examination.

Feedback to students:

After work is submitted and marked, teachers will provide feedback to students. Appropriate feedback includes:

- Advice on particular problem areas
- Advice on where and how improvements can be made for further learning
- Reporting S or N decisions and/or written comments on students’ performance against each outcome

Students need to be aware of the following:

- about the ‘conditional’ nature of any School-assessed Coursework may change as a result of statistical moderation
- that their total scores for School-Assessed Coursework may change as a result of statistical moderation

REPORTING

Completion of a unit will be reported on the Statement of Results issued by the Board of Studies as S (Satisfactory) or N (Not Satisfactory).

The College will also provide written descriptive reports on the level of achievement attained by students at the end of Units 1 and 2 and descriptive reports of student progress at the end of Unit 3.

End of Semester reports for Units 1 and 2, provided by the College, will give a grade (%), for levels of achievement in assessment tasks drawn from learning outcomes.

Unit 3 will be reported as percentage grades by the College. Reporting of grades for Units 3 and 4 will be undertaken by the Victorian Curriculum Assessment Authority (VCAA), on a student's final statement of results.

Time management, organisational skills and study skills are all important aspects of VCE studies.

Support is given to students to help master these skills.

In 2016 VCE Support Sessions have been running on weeknights for students – we plan to continue these in 2017.

Students also have access to lunchtime Homework sessions, where they can access teacher and peer support.
THE VCAL PROGRAM

The Victorian Certificate of Applied Learning (VCAL) is broadening the educational, training and employment opportunities for the students who are more suited to learning in an applied, “practical” environment.

Unlike VCE, which is widely used by students as a pathway to university, students who study VCAL are more likely to be interested in going onto training at TAFE, completing an apprenticeship, or going straight into the workplace after completing Year 11 and/or 12.

At Rushworth P-12 College:

Students will attend core classes at school, these classes will cover, Numeracy, Literacy, Work Related Skills and Personal Development. They will also undertake Vocational Training (VET) courses and work placement in their chosen field in locations away from school.

ENROLMENT REQUIREMENTS:

Students will be required to express their interest in a VET subject during Term 3, 2016, with confirmation given early in Term 4, 2016.

**VET study is a COMPULSORY component of a VCAL enrolment.**

Students are required to secure a Work Placement for Term 1, 2017, before they leave school in 2016.

Students in Year 12 are to select one VCE subject from the following: Design Technology, Food Technology and Outdoor & Environmental Studies.

Community programs will be a COMPULSORY aspect of the VCAL program. For example volunteering at the Easter Festival.

Students are to maintain a 90+% attendance rate.

ASSESSMENT

In a VCAL program students are assessed in a variety of different ways and elements. Students are assessed by their classroom teachers against set outcomes. This could include a piece of written work, or video evidence of a task, or teacher observations of a project.

Students will also be assessed on their TAFE work and their competence in their Work Placement.

It is important for students to keep their school and TAFE attendance at or above 90% as this is also a requirement when completing a VCAL course.
### 2017 VCAL program to consist of:

<table>
<thead>
<tr>
<th>Intermediate VCAL</th>
<th>Senior VCAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation English</td>
<td>VCE English (Units 1 &amp; 2)</td>
</tr>
<tr>
<td>Foundation Math’s</td>
<td>VCE subject</td>
</tr>
<tr>
<td></td>
<td>Unit 3 &amp; 4: Senior Certificate level</td>
</tr>
<tr>
<td></td>
<td><strong>Choices:</strong></td>
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<tr>
<td></td>
<td>Studio Arts</td>
</tr>
<tr>
<td></td>
<td>Outdoor &amp; Environmental Studies</td>
</tr>
<tr>
<td></td>
<td>Food Technology</td>
</tr>
<tr>
<td></td>
<td>Design Technology</td>
</tr>
<tr>
<td></td>
<td>Agriculture &amp; Horticulture Studies</td>
</tr>
<tr>
<td>VCAL Project Based Learning (PBL)</td>
<td>VCAL Project Based Learning (PBL)</td>
</tr>
<tr>
<td>VET enrolment</td>
<td>VET enrolment</td>
</tr>
<tr>
<td>Work Placement</td>
<td>Work Placement</td>
</tr>
<tr>
<td>Compulsory involvement at three</td>
<td>Compulsory involvement at four</td>
</tr>
<tr>
<td>College events: Easter Festival,</td>
<td>events: Easter Festival, College</td>
</tr>
<tr>
<td>College Swimming &amp; Athletics sports.</td>
<td>Swimming &amp; Athletics sports and one</td>
</tr>
<tr>
<td></td>
<td>other.</td>
</tr>
</tbody>
</table>

Foundation VCAL will only be offered if required (individual basis).

Selection will be granted depending on the following:

- Forms completed and deadlines adhered to (VET & Work Placement).
- Effort & Behaviour from past year of study
- Course availability.
- Year 12 students wanting to achieve a Senior Certificate must complete a Unit 3/4 VCE subject.

External and Internal exams must be completed if available, including the GAT and VCE/VET related exams.
VET - Vocational Education and Training

The vocational courses available at Rushworth provide students with access to further training, e.g. at a TAFE institute, and are intended to improve a student's chances of obtaining employment at the completion of secondary school.

Student places in the below VET courses of study are limited. Any student wishing to commence a VET course in 2017 is advised to register their interest with the Pathways Manager as soon as possible, in order to arrange a pre-selection interview.

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Animal Studies (online)</th>
<th>Automotive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beauty Services</td>
<td>Building &amp; Construction</td>
<td>Business</td>
</tr>
<tr>
<td>Community Services</td>
<td>Conservation &amp; Land Management/ Horticulture</td>
<td>Certificate III in Design Fundamentals</td>
</tr>
<tr>
<td>Electrotechnology</td>
<td>Engineering</td>
<td>Equine</td>
</tr>
<tr>
<td>Events</td>
<td>Furniture Making</td>
<td>Hairdressing</td>
</tr>
<tr>
<td>Health</td>
<td>Hospitality (Kitchen Operations)</td>
<td>Information, Digital Media &amp; Technology</td>
</tr>
<tr>
<td>CISCO (Integrated Technology)</td>
<td>Landscape Construction/Horticulture</td>
<td>Music</td>
</tr>
<tr>
<td>Plumbing</td>
<td>Sport &amp; Recreation</td>
<td></td>
</tr>
</tbody>
</table>

Selection preference will be given to students who intend to undertake a post-secondary pathway in one of these vocational areas.

What is a VCE VET program?

Students may choose a VCE VET program as part of their VCE studies. This provides the opportunity to undertake training in a specific vocational area as well as receive credits/units to go toward your VCE.

Each of these study areas is undertaken over a 2 year period and when completed provides students with a Unit 1-4 subject sequence as part of a VCE study program, as well as a nationally recognized TAFE Certificate qualification.

You can commence a VET study in Year 10 or 11.

Year 10 students will need to submit a ‘fast-track’ application if they wish to undertake a VET subject in 2017.

Year 11 students will need to discuss their choice with the VCE/VCAL Coordinator and the Pathways Manager to ensure a suitable study plan is generated to ensure students are keeping up with the studies they miss on a Wednesday.
How does VET work in a VCAL program?

Students must successfully complete a minimum of one credit in the Industry Specific Skills Strand to meet the minimum VCAL course requirements. One credit will be given for the successful completion of accredited vocational education and training units of competency/modules that total 90 nominal hours. VET courses range from 200 – 360 hours.

Classes in all these VET subjects are held away from the College campus one full day per week during term. Students can study VET subjects in Shepparton, Kyabram, Echuca and Bendigo.

Students are often also required to complete a work placement that provides the opportunity to further develop their knowledge and skills.

Please see the VET subject summaries within this booklet for more detail.

Additional information about each of these VET courses, including lists of modules to be studied, is available from the Pathways Manager.

Jazmyne Weatherhead & Kelly Turgoose participated in the Murray River Culinary Challenge Regional Finals as part of their VCE VET Hospitality studies.

Whilst Gus Meulenmeesters was recognised as a VET Excellence award winner for his efforts in studying VET Automotive in 2015.

What will you achieve with your VET studies in 2017?
AGRICULTURAL & HORTICULTURAL STUDIES

VCE Agricultural and Horticultural Studies is designed to develop students’ understanding of the operations and practices involved with sustainable agricultural and horticultural systems within an economic, social and environmental context. An understanding of agribusiness operations involves a broad familiarity with interdisciplinary skills and knowledge of technology, science, economics and business management, marketing, geography and information and communications technology (ICT). Students apply their acquired knowledge and skills to design develop and manage an agricultural and/or horticultural business as a project within this study.

The study provides a contextual overview of the scientific management and operational skills and knowledge required to run a small agricultural and/or horticultural business. The study considers current and future practices within the Australian and international agribusiness sector. Students are expected to research change and innovation with regard to agricultural and/or horticultural businesses responding to a range of drivers and demands.

The broad applied nature of the study of agribusiness operations prepares students to make decisions about career opportunities or further studies in agriculture horticulture land management agricultural business practice and natural resource management. It complements the skills focus of competency-based training available through VET certificates in Agriculture Horticulture and Conservation and Land Management.

Structure

Unit 1: AH011 - Agricultural and horticultural operations

In this unit students study local agricultural and horticultural operations and the economic, social, environmental and historical factors that influence these operations. Students use a small business project to explore the role of agribusiness in value adding to the product of an agricultural and/or a horticultural business.

Unit 2: AH022 - Production

This unit focuses on plant and animal nutrition, and growth and reproduction and their relationships within agribusiness systems. Students use a small business project to explore the role of agribusiness in value adding to the product of an agricultural and/or a horticultural business.

Unit 3: AH033 - Technology, innovation and business practices

In this unit technology refers to the equipment, management techniques and processes that can be used to maintain and/or enhance efficiency and effectiveness of agricultural and horticultural systems in order to achieve socially, economically and environmentally sustainable agricultural and horticultural systems. Students individually design a small agricultural or horticultural business that involves the management of plants and/or animals. Using a range of production techniques and equipment they commence their business and report on its progress.

Unit 4: AH034 - Sustainable management

This unit focuses on the management of agricultural and horticultural systems within the context of economic, social and environmental sustainability. Students individually design a small agricultural or horticultural business that involves the management of plants and/or
animals. Using a range of production techniques and equipment they commence their business and report on its progress.

**Entry**
There are no prerequisites for entry into Units 1, 2, and 3, although students are strongly advised to take Unit 1 & 2 before Unit 3. Students must undertake Unit 3 prior to undertaking Unit 4.

**Assessment**

**Satisfactory Completion**
Demonstrated achievement of the set of outcomes specified for the unit.

**Levels of Achievement**

**Units 1 and 2**
Plan, start and run your own small agricultural and horticultural business.
Studying local and regional agricultural and horticultural businesses.

**Units 3 and 4**
*Percentage contributions to the study score in VCE Agricultural and Horticultural Studies are as follows:*
*Unit 3 school assessed coursework: 33 per cent*
*Unit 4 school assessed coursework: 33 per cent*
*End of year examination: 34 per cent*

**Excursions**
Excursions are taken each term to explore the range of rich agricultural and horticultural industries within the Goulburn Valley and beyond and create the linkages to classroom activities and the students’ own business operations.

**Pathways**

<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agricultural Science</td>
<td>Animal Science</td>
<td>Primary production</td>
</tr>
<tr>
<td>Genetics</td>
<td>Agriculture &amp; Horticulture</td>
<td>Genetics &amp; Breeding</td>
</tr>
<tr>
<td>Agribusiness</td>
<td>Land management</td>
<td>Economics &amp; Business</td>
</tr>
<tr>
<td>Agricultural Science</td>
<td>Animal Science</td>
<td>Primary production</td>
</tr>
<tr>
<td>Veterinary Science</td>
<td>Wool classer</td>
<td>Humanitarian</td>
</tr>
</tbody>
</table>
BIOLOGY

VCE Biology enables students to investigate the processes involved in sustaining life at cellular, system, species and ecosystem levels. In undertaking this study, students examine how life has evolved over time and understand that in the dynamic and interconnected system of life all change has a consequence that may affect an individual, a species or the collective biodiversity of Earth. The study gives students insights into how knowledge of molecular and evolutionary concepts underpin much of contemporary biology, and the applications used by society to resolve problems and make advancements.

In VCE Biology students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary biology-related issues, and communicate their views from an informed position.

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

Structure

Unit 1: BI011 - How do 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, types of adaptations and how a diverse group of organisms form a living interconnected community. A student practical investigation related to the survival of an organism or species is undertaken in Area of Study 3.

Unit 2: BI022 - 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. A student-directed research investigation into, and communication of, an issue related to genetics and/or reproductive science is to be undertaken in Area of Study 3.

Unit 3: BI033 - How do cells maintain life?

The cell is a dynamic system of interacting molecules that define life. An understanding of the workings of the cell enables an appreciation of both the capabilities and the limitations of living organisms whether animal, plant, fungus or microorganism. The convergence of cytology, genetics and biochemistry makes cell biology one of the most rapidly evolving disciplines in contemporary biology. A student practical investigation related to cellular processes and/or biological change and continuity over time is undertaken.

Unit 4: BI034 - How does life change and respond to challenges over time?

In this unit students consider the continual change and challenges to which life on Earth has been subjected. They investigate the relatedness between species and the impact of various change events on a population’s gene pool. The accumulation of changes over
time is considered as a mechanism for biological evolution by natural selection that leads to
the rise of new species.

Entry
There are no prerequisites for entry into Units 1, 2, and 3, although students are strongly
advised to take Unit 1 before Unit 3.
Students must undertake Unit 3 prior to undertaking Unit 4.

Assessment
Satisfactory Completion
Demonstrated achievement of the set of outcomes specified for the unit.

Levels of Achievement

Units 1 and 2
Practical work Research tasks Unit tests Semester examinations

Units 3 and 4
Percentage contributions to the study score in VCE Biology are as follows:
Unit 3 school assessed course work: 20 per cent
Unit 4 school assessed course work: 20 per cent
End of year examination: 60 per cent

Pathways

<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine Biology</td>
<td>Animal Sciences</td>
<td>Environmental Management</td>
</tr>
<tr>
<td>Molecular &amp; cellular biology,</td>
<td>Nursing</td>
<td>Genetics</td>
</tr>
<tr>
<td>genetics.</td>
<td>Aquaculture</td>
<td>Health Care</td>
</tr>
<tr>
<td>Medicine</td>
<td>Laboratory technician</td>
<td>Veterinary</td>
</tr>
<tr>
<td>Forensic Science</td>
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</tbody>
</table>
BUSINESS MANAGEMENT

The VCE Business Management study design follows the process from the first idea for a business concept, to planning and establishing a business, through to the day-to-day management of a business. It also considers changes that need to be made to ensure continued success of a business. Students develop an understanding of the complexity of the challenges facing decision makers in managing these resources.

Structure

Unit 1: BM011 - Planning a business
In this unit students explore the factors affecting business ideas and the internal and external environments within which businesses operate, and the effect of these on planning a business.

Unit 2: BM022 - Establishing a business
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.

Unit 3: BM033 - Managing a business
In this unit 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.

Unit 4: BM034 - Transforming a business
In this unit students consider the importance of reviewing key performance indicators to determine current performance and the strategic management necessary to position a business for the future. Students study a theoretical model to undertake change, and consider a variety of strategies to manage change in the most efficient and effective way to improve business performance. They investigate the importance of leadership in change management.

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

Assessment

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

Levels of Achievement

Units 1 & 2
Practical work  Research tasks  Unit tests and semester examinations
Units 3 & 4

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

- Unit 3 school assessed course work: 25 per cent
- Unit 4 school assessed course work: 25 per cent
- Unit 3 and 4 examination: 50 per cent

Pathways

<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>Employment</th>
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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.

Studying Chemistry can enrich students’ lives through the development of particular knowledge, skills and attitudes, and enable them to become scientifically capable members of society. It will also provide a window on what it means to be a scientific researcher, working as a member of a community of practice, including insight into how new ideas are developed and investigated, and how evidence or data collected is used to expand knowledge and understanding of chemistry.

Structure

Unit 1: CH011 – How can knowledge of elements explain the properties of matter?

Unit one consists of 3 Areas of study. The first looks at the Periodic Table and the development of the Atomic Model. It applies this knowledge to Metals and Nonmetals and specifically looks at how Metals are separate from ores they are found in. Area of Study 2 discusses Non-metals with a focus on organic compounds. The Third Area of Study involves a research assignment that can focus on 10 possible questions supplied or an agreed upon question from the previous 2 Areas of Study allowing students to tailor the subject to their particular career pathway or interest.

Unit 1 research topics:

- The origin of the elements
- The development of the periodic table.
- The lanthanoids and actinoids
- Using light to solve chemical puzzles.
- Glass.
- Crude oil.
- Surfactants.
- Polymers and composite materials.
- Nonomaterials
- The life cycle of a selected material or chemical.

Unit 2: CH022 – What makes water such a unique chemical?

Unit 2 has a heavy focus on water quality and water itself as a chemical. Again it is broken up into three areas. The first discusses the properties of water and how substances interact with it. The second focuses on measurements of fluids and concentrations of solutions. The final Area of Study is a Student designed practical investigation into some aspect of water quality. Again this investigation allows students to tailor the subject to their own pathway and interests.
Unit 3: CH033 – How can chemical processes be designed to optimise efficiency?
Unit 3 is divided into 2 Areas of Study. The first looks at a number of energy sources their impact on the environment and ways in which they can be optimized. The second area of study looks at factors that affect the yield of chemical equations and how conditions can be modified to increase the yield of desired products.

Unit 4: CH034 – How are organic compounds categorised analysed and used?
The final chemistry unit has a strong focus on organic chemistry. Area of study one looks at the structure of organic molecules and methods used to analyse them. The second looks at food chemistry and is followed by a practical investigation that allows students to look into any facet of unit 3 and 4.

Entry
There are no perquisites for entry to Unit 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/ or 2 may be required to undertake additional reading as prescribed by their teacher.

Assessment
Satisfactory Completion
Demonstrated achievement of outcomes specified for the unit.

Levels of Achievement
Units 1 and 2
Individual school decision on levels of achievement.

Units 3 and 4
Percentage contributions to the study score in VCE Chemistry are as follows:
- Unit 3 School-assessed Coursework: 16 per cent
- Unit 4 School-assessed Coursework: 24 per cent
- End-of-year examination: 60 per cent.

Pathways

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COMPUTING (Formally Information Technology)

While it is important that students extend their use of ICT as learning and personal tool, the study of VCE Information Technology encompasses information systems and how people interact with information technology to create structured information and to connect with others to exchange information.

It encompasses the theoretical foundations of computation and techniques for writing programs and developing solutions. It also focuses on how the needs of individuals, organisations, communities and society are met through the combination of ICT and meaningful information.

VCE Information Technology equips students with appropriate knowledge and skills to use ICT responsibly and to make informed personal and workplace choices about developments in this exciting field. Students are encouraged to orient themselves towards the future, with an awareness of the technical and societal implications of ICT.

Structure

Unit 1 & 2: IT011 & IT012 - Computing
This unit focuses on how individuals and organisations use, and can be affected by, information and communications technology (ICT) in their daily lives.

Unit 3 & 4: Informatics This unit focuses on how individuals and organisations use ICT to meet a range of purposes. Students apply a range of knowledge and skills to create solutions, including those that have been produced using a programming or scripting language, to meet users' needs.

Units 3 & 4: IT033 & IT034 - Software Development
In Software Development Unit 3 & 4 Students focus on the application of a problem solving methodology and underlying skills to create purpose designed solutions using a programming language.

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

Assessment

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

Levels of Achievement

Units 1 and 2 Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.
Units 3 and 4

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

- Unit 3 School-assessed Coursework: 10 per cent
- Unit 4 School-assessed Coursework: 10 per cent
- School assessed Tasks: 30 per cent
- End-of-year examination: 50 per cent.

Pathways

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ENGLISH & E.A.L (English as Additional Language)

The English language is central to the way in which students understand critique and appreciate their world and to the ways in which they participate in Australian society.

The study of English encourages the development of literate individuals capable of critical and imaginative thinking in response to authors and their audiences.

Structure

Unit 1: EN011 - Reading and creating texts

Students explore the decisions authors make to give meaning to a text. By understanding textual features and ideas in the narrative, students develop responses to the texts in both analytical and creative forms.

**Analysing and presenting argument:** Through developing understanding of the construction of persuasive texts, students identify the techniques used by authors to position their audience and then use this knowledge to present their own argument.

Unit 2: EN012 - Reading and comparing texts

Students use comparison to deepen their understanding of ideas, themes and issues, demonstrating this understanding in a written piece that considers the crafting of a common theme from two different authors.

**Analysing and presenting argument:** Building on their understanding from the previous unit, students consider the impact an argumentative text has on audiences and practise developing reasoned points of view in an oral presentation.

Unit 3: EN013 - Reading and creating texts

Students explore the decisions authors make to give meaning to a text. By understanding textual features and ideas in the narrative, students develop sustained responses to the texts in both analytical and creative forms.

**Analysing argument:** Through developing understanding of the construction of persuasive texts, students identify the visual and linguistic techniques used by authors to position their audience in relation to a contemporary issue in the Australian media.

Unit 4: EN014 - Reading and comparing texts: Students use comparison to deepen their understanding of ideas, themes and issues, demonstrating this understanding in a written piece that considers the crafting of a common theme from two different authors.

**Presenting argument:** Building on their understanding from the previous unit, students arguments surrounding a contemporary issue in the Australian media and develop a sustained and reasoned response to the issue aimed at positioning their audience.

Entry

There are no prerequisites 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.
Levels of Achievement

Units 1 and 2
The individual school will determine levels of achievement.

Units 3 and 4
Percentage contributions to the study score in VCE English are as follows:
Unit 3 School-assessed Coursework: 25 per cent
Unit 4 School-assessed Coursework: 25 per cent
End-of-year examination: 50 per cent

Pathways

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<tr>
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Did you know **ENGLISH** is the number one pre-requisite for most University courses?

You need to achieve a study score of 25 -30 to meet the standard.
FOOD STUDIES

VCE Food Studies takes an interdisciplinary approach to the exploration of food, with an emphasis on extending food knowledge and skills and building individual pathways to health and wellbeing through the application of practical food skills. VCE Food Studies provides a framework for informed and confident food selection and food preparation within today’s influences and choices.

Students explore food from a wide range of perspectives. They study past and present patterns of eating, Australian and global food production systems and the many physical and social functions and roles of food. They research economic, environmental and ethical dimensions of food and critically evaluate information, marketing messages and new trends.

Practical work is integral to Food Studies and includes cooking, demonstrations, creating and responding to experiments.

Structure

Unit 1: FY011 - 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. In Area of Study 1 students explore how humanity has historically sourced its food, examining the general progression from hunter-gatherer to rural-based agriculture, to today’s urban living and global trade in food. In Area of Study 2 students focus on Australia. They look at Australian indigenous food prior to European settlement and how food patterns have changed since food production, processing and manufacturing industries and immigration.

Unit 2: FY022 - Food makers

In this unit students investigate food systems in contemporary Australia. Area of Study 1 focuses on commercial food production industries, while Area of Study 2 looks at food production in small-scale domestic settings, as both a comparison and complement to commercial production.

Unit 3: FY033 - Food in daily life

This unit investigates the many roles and everyday influences of food. Area of Study 1 explores the science of food: our physical need for it and how it nourishes and sometimes harms our bodies.

Area of Study 2 focuses on influences on food choice: how communities, families and individuals change their eating patterns over time and how our food values and behaviours develop within social environments.

Unit 4: FY034 - Food issues, challenges and futures

In this unit students examine debates about global and Australian food systems. Area of Study 1 focuses on issues about the environment, ecology, ethics, farming practices, the development and application of technologies, and the challenges of food security, food safety, food wastage, and the use and management of water and land.

Area of Study 2 focuses on individual responses to food information and misinformation and the development of food knowledge, skills and habits to empower consumers to make discerning food choices.
Entry
There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4.

Assessment
Satisfactory Completion
Demonstrated achievement of the set of outcomes specified for the unit.

Levels of Achievement
Units 1 and 2
Individual school decision on levels of achievement.

Units 3 and 4
Percentage contributions to the study score in VCE Food and Technology are as follows:
• Unit 3 School-assessed Coursework: 18 per cent
• Unit 4 School-assessed Coursework: 12 per cent
• Units 3 and 4 School-assessed Task: 40 per cent
• End-of-year examination: 30 per cent

Excursion
Excursion - Unit 2 - Food Makers - The proposed excursion will draw upon knowledge of mass production factories in comparison to small scaled food outlets in order to meet consumer demand.

Pathways

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FOUNDATION ENGLISH

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

The Foundation English course is designed around one compulsory area of study, Essentials of English, and five optional areas of study from which one must be selected for study in each unit.

Structure

Units 1 and 2: EN101 & EN102

Area of Study 1: Essentials of English
This area of study focuses on developing learning strategies and literacy skills.

Units 1 and 2 – Optional Areas:

Area of Study 2: Communication and the workplace
This area of study focuses on developing the skills of effective workplace communication.

Area of Study 3: Technology and communication
This area of study focuses on strategies for using information and communications technology to enhance and improve students’ knowledge of the structures and features of various information technologies.

Area of Study 4: The study of texts
This area of study focuses on developing the skills required to read a range of texts, including literary, factual, media, multimodal, visual and everyday texts, and develop oral and written responses.

Area of Study 5: The analysis and construction of argument
This area of study focuses on developing the ability to analyse the oral and written arguments of others, and the skills to structure a logical and supported argument of one’s own, orally and in writing.

Area of Study 6: Information literacy
This area of study focuses on developing in students the ability to recognise the need for credible information in an age when sources are becoming more varied, especially from the internet.

Entry
The Prerequisite for entry into Foundation English Unit 1 and 2 is a successful application for the VCAL Program.

Assessment
Satisfactory Completion

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

Levels of Achievement Unit 1 and 2
An analysis of an aspect or aspects of a text in response to a set topic
A review of a short text
A business letter, job application and résumé
A piece of personal writing and argumentative writing
A piece of informative writing and piece of instructional writing

Optional selection:
Role-play of an interview or a problem-solving situation
Description and explanation of a work-related process
A web page
A newspaper, magazine or e-zine
A multimedia presentation
A formal presentation using information and communications technology
Comparing different types of texts dealing with similar content, themes or issues
Comparing similar types of texts to identify common structures and features
An oral presentation
A written short-answer analysis of an argument
A feature article; website and or written report

Unit 3 and 4
There is no Foundation English Unit 3 and 4.
However there are various pathways that students may follow after completing Foundation English Units 1 and 2. Some students may proceed to VCE English Units 1 and 2 and subsequently to Units 3 and 4. Alternatively, after completing Foundation English Unit 1, students could proceed to English/ESL, Unit 2 and from there to Units 3 and 4.

Foundation English will only be available to VCAL students in 2017.
GEOGRAPHY

VCE Geography enables students to examine natural and human phenomena, how and why they change, their interconnections and the patterns they form across the Earth’s surface. In doing so, they develop a better understanding of their own place and its spaces and those in other parts of the world. These spatial perspectives, when integrated with historical, economic, ecological and cultural perspectives, deepen understanding of places, environments and human interactions with these. In VCE Geography students develop a range of skills, many of which employ spatial and digital technologies. Investigative skills develop students’ ability to conduct geographic study and inquiry including the collection of primary data through observation, surveys, fieldwork, and the collection of data and information from relevant secondary sources. Interpretative and analytical skills enable students to interpret information presented in a variety of formats including maps, graphs, diagrams and images. These skills encourage students to critically evaluate information for its validity and reliability. Presentation and communication skills enable students to communicate their knowledge and understanding in a coherent, creative and effective manner, with the use of appropriate geographic terminology.

Structure

Unit 1: GE011 - Hazards and disasters
In this unit students investigate 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.

Unit 2: GE022 - Tourism
In this unit students investigate the characteristics of tourism, with particular emphasis on where it has developed, it’s various forms, how it has changed and continues to change and its impacts on people, places and environments.

Unit 3: GE033 - Changing the land
This unit focuses on two investigations of geographical change: change to land cover and change to land use. Land cover includes biomes such as forest, grassland, tundra and wetlands, as well as land covered by ice and water. Students investigate three major processes that are changing land cover in many regions of the world:

- deforestation
- desertification, and
- melting glaciers and ice sheets.

Unit 4: GE034 - Human population – trends and issues
In this unit students investigate the geography of human populations. They explore the patterns of population change, movement and distribution, and how governments, organisations and individuals have responded to those changes in different parts of the world.

Entry:
There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Units 1 to 4 are designed to a standard equivalent to the final two years of secondary education.
Assessment

Satisfactory Completion

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

Levels of Achievement

Units 1 and 2

Field work  Project based learning  Data analysis  Semester examination

Units 3 and 4

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

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

Excursions

Fieldwork is an essential component of the study of VCE Geography in Units 1-3. As a new study design will be implemented at the start of 2016, the nature of fieldwork tasks required of students has not been finalised as yet. It is likely however that there will be up to six day excursions outside of the local area at a total cost of approximately $200 over the two years of study.

Pathways

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<tr>
<td>Geology &amp; Geophysics</td>
<td>Environment &amp; Natural Resource Management</td>
<td>Remote sensing</td>
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Have a talk to these students about the sorts of things you study in Geography.

Kristie, Alex, Shanae & Caleb on their excursion to the Toolangi forest.
HEALTH & HUMAN DEVELOPMENT

Through the study of VCE Health and Human Development, students investigate health and human development in local, Australian and global communities. Students look at the biomedical and behavioural factors that influence individual health and development and identify interrelationships between these.

The study takes a global perspective on health and human development, investigating people’s choices and ways to enhance capabilities (the range of things people can be and do) and their freedoms; enabling people to live full, productive and creative lives; having access to knowledge, health and a decent standard of living; and participating in the life of their community and decisions affecting their lives (adapted from the United Nations Development Programme, 1990). The study also promotes the understanding that nutrition plays a major role in influencing both health status and individual human development.

Structure

Unit 1: HH011 - The health and development of Australia’s youth
In this unit students are introduced to the concepts of health and individual human development, focusing on the lifespan stage of youth.

Unit 2: HH022 - Individual human development and health issues
This unit focuses on the health and individual human development for the lifespan stages of prenatal, childhood and adulthood.

Unit 3: HH033 - Australia’s health
In this unit students investigate the health status of population groups within Australia and health promotion strategies.

Unit 4: HH034 - Global health and human development
This unit takes a global perspective on achieving sustainable improvements in health and human development.

Entry
There are no prerequisites for Units 1, 2 and 3. Students must undertake Unit 3 prior to Unit 4. It is highly recommended students do Units 1, 2 if they intend doing Units 3 and 4.

Assessment

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

Levels of Achievement
Students will complete a range of practical and theoretical activities with class work and assessments including but not limited:

Case studies, Data analysis, Visual presentations, such as a concept/mind map or poster and multimedia presentations, Oral presentations, such as a debate or podcast (audio or visual), blogs, Tests and written responses, such as a research assignment or written report and Examinations
Units 3 and 4

Percentage contributions to the study score in VCE Health & Human Development are as follows:

Unit 3 School-assessed Coursework: 25 per cent
Unit 4 School-assessed Coursework: 25 per cent

End-of-year examination: 50 per cent.

Pathways

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<td>International Development</td>
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<td>Health Sciences</td>
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Students in Health & Human Development 2016 have been studying the development phases of children, and are planning the space in a kindergarten to assist with the development of these child phases.
HISTORY

History involves inquiry into human action in the past, to make meaning of the past using primary sources as evidence. As historians ask new questions, revise interpretations or discover new sources, fresh understandings come to light.

Although history deals with the particular-specific individuals and key events-the potential scope of historical inquiry is vast and formed by the questions that historians pursue, the availability of sources and the capacity of historians to interpret those sources. VCE History reflects this range of inquiry by enabling students to engage with a range of times, people, places and ideas.

Twentieth century history examines the aftermath of the Great War as well as the causes and consequences of World War Two. Australian History investigates national history from colonial times to the end of the twentieth century and includes the histories of Indigenous Peoples. Revolutions explore the causes and consequences of revolution in America, France, Russia and China.

Structure

Unit 1: HI031 - Twentieth Century History 1918-1939

In Unit 1 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 post-war treaties ushered in a period where the world was to a large degree, reshaped with new borders, movements, ideologies and power structures. These changes affected developments in Europe, the USA, Asia, Africa and the Middle East. Economic instability caused by the Great Depression also contributed to the development of political movements. Despite ideals about future peace, reflected in the establishment of the League of Nations, the world was overtaken by war in 1939.

The period after World War One was characterized by significant social and cultural change in the contrasting decades of the 1920s and 1930s. New fascist governments used the military, education and propaganda to impose controls on the way people lived, to exclude particular groups of people and to silence criticism. In Germany, the persecution of the Jewish people became intensified. In the USSR, millions of people were forced to work in state-owned factories and farms and had limited freedom. Japan became increasingly militarized and anti-western. In the USA, the consumerism and material progress of the 1920’s was tempered by the Great Crash of 1929. Writers, artists, musicians, choreographers and filmmakers reflected, promoted or resisted political economic and social changes.

Unit 2: HI042 - Twentieth Century History 1945-2000

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

The establishment of the United Nations in 1945 was intended to take an internationalist approach to avoiding warfare, resolving political tensions and addressing threats to human life and safety. The Universal Declaration of Human Rights adopted in 1948 was the first global expression of human rights.
Despite internationalist moves, the second half of the twentieth century was dominated by the competing ideologies of democracy and communism, setting the backdrop for the Cold War.

The period also saw challenge and change, to the established order in many countries. The continuation of moves towards decolonization led to independence movements in former colonies in Africa, the Middle East, Asia and the Pacific. New countries were created and independence was achieved through both military and diplomatic means. Old conflicts also continued and terrorism became increasingly global. The second half of the twentieth century also saw the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

Units 3 and 4: HI033 & HI034 - Revolutions

Students will study the French Revolution of 1776 and the Russian Revolution of October 1917.

In Units 3 and 4 Revolutions students investigate the significant historical causes and consequences of political revolution. Revolutions represent great ruptures in time and are a major turning point which brings out the collapse and destruction of an existing political order resulting in a pervasive change to society. Revolutions are caused by the interplay of ideas, events, individuals and popular movements. The consequences have a profound effect on the political and social structures of the post-revolutionary society. Revolution is a dramatically accelerated process whereby the new order attempts to create political and social change and transformation based on a new ideology. Progress in a post-revolutionary society is not guaranteed or inevitable. Post-revolutionary regimes are often threatened internally by civil war and externally by foreign threats. These challenges can result in a compromise of revolutionary ideals and extreme measures of violence, oppression and terror.

In these units students develop an understanding of the complexity and multiplicity of causes and consequences in the revolutionary narrative. They construct an argument about the past using primary sources as evidence and evaluate the extent to which the revolution brought change to the lives of people. They consider how perspectives of the revolution give an insight into the continuity and change experienced by those who lived through dramatic revolutionary movements. Students evaluate historical interpretations about the causes and consequences of revolution and the effects of change instigated by the new order.

Units 3 and 4: Australian History

Unit 3 Transformations: HI083 - Colonial society to nation

Unit 4 Transformations: HI084 - Old certainties and new visions

Over the last two hundred years the history of European settlement in Australia has brought radical changes for the descendants of both the original Aboriginal inhabitants and the incoming colonists. From 1788 onwards people, ideas and events created colonial societies and eventually a new nation that confronted significant challenges and changes in its first century of existence.

Transformations in Australia’s history have occurred sometimes chaotically in response to a sudden rush for land or gold and at other times in a debated and planned fashion, as in the creation of what was, the early twentieth century, an advanced democracy. Over this time, crises and movements have also led governments and people to modify the status quo to confront critical challenges to the stability and defence of the nation.

In VCE Australian History students explore four periods of time which span some of the transformative events and processes that developed and changed the nature of Australian
society and created modern Australia. The first slice of time begins in the 1830’s with the expansion of European control over much of southern Australia as squatters appropriated country inhabited by Aboriginal peoples. The remaining three time periods consider transformations undergone by the new Australian nation in the twentieth century.

Entry
There are no prerequisites for entry to Unit 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. There are no restrictions on the number of histories a student may take.

Assessment
Satisfactory Completion
Demonstrated achievement of the set of outcomes specified for the unit.

Levels of Achievement
Units 1 and 2
- Annotated maps
- Short reports and essays
- Analytical exercises
- Multimedia and oral presentations
- Film reviews and biographical studies
- Tests and examinations

Units 3 and 4
Percentage contributions to the study score in VCE History are as follows:
- Unit 3 School-assessed Coursework: 25 per cent
- Unit 4 School-assessed Coursework: 25 per cent
- End-of-year examination: 50 per cent

Pathways

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<td>Tourism</td>
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<tr>
<td>Bachelor of Arts/ Master of Teaching (Secondary)</td>
<td>Government</td>
<td>Heritage Work</td>
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LEGAL STUDIES

Legal Studies investigates the ways in which the law and the legal system relate to and serve individuals and the community. This knowledge is central to understanding the workings of contemporary Australian society.

Legal Studies examines the processes of law-making, dispute resolution and the administration of justice in Australia. Students develop an understanding of the impact of the legal system on the lives of citizens, and the implications of legal decisions and outcomes on Australian society. Students develop an understanding of the complexity of the law and the legal system and the challenges faced by our law-makers and dispute resolution bodies. They investigate the workings of the Australian legal system and undertake comparisons with international structures and procedures.

Students would study Legal Studies if they:

- Have an interest in the legal system
- Enjoy learning about criminal and civil law
- Are considering a career option in law or law-related areas
- Want to study an interesting subject
- Want to learn important life skills.

Structure

Unit 1: LS011 - Criminal law in action:
Students examine the need for laws in society. They investigate the key features of criminal law, how it is enforced and adjudicated and possible outcomes and impacts of crime.

Unit 2: LS022 - Issues in civil law:
Students examine the rights that are protected by civil law, as well as obligations that laws impose. They investigate types of civil laws and related cases and issues and develop an appreciation of the role of civil law in society and how it affects them as individuals.

Unit 3: LS033 - Law-making:
Students develop an appreciation of the complex nature of law-making by investigating the key features and operation of parliament, and influences on law-making, with a focus on the role of the individual.

Unit 4: LS034 - Resolution and justice:
Students examine the institutions that adjudicate criminal cases and civil disputes. They also investigate methods of dispute resolution that can be used as an alternative to civil litigation.

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

Assessment
Satisfactory Completion
The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit.
Levels of Achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision. This decision will be based on the teacher’s assessment of the student’s performance on assessment tasks designated for the unit.

- Structured assignments and essays
- Folio and case studies
- Tests and examinations
- Mock court or role-play activities
- Written, visual and or multimedia Reports

Units 3 and 4

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

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

Pathways

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<tr>
<td>Law</td>
<td>Community Services</td>
<td>Law and Court Professions</td>
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</tbody>
</table>

Legal Studies students get to experience how the legal system works through role play and mock court sittings.

Jack Valent & Kaylee Andrews enjoyed their experience at the Wangaratta Law Courts as part of their Legal Studies, studies in 2014.
NOTE:
- Math is compulsory at Year 11, students are advised to meet with the Pathways Manager and VCE Coordinator before selecting their Math course.
- Foundation Math is only available to Year 11 students and does not have a Year 12 component.
- General Maths in Year 11 is a preparation only for Further Maths in Year 12.
- Math is NOT compulsory in Year 12, but students are required to meet with the Pathways Manager and VCE coordinator before making this choice.
- Maths is not available as a Fast Track selection.

FOUNDATION MATHEMATICS

In Foundation Mathematics there is a strong emphasis on using mathematics in practical contexts relating to everyday life, recreation, work and study. Students are encouraged to use appropriate technology in all areas of their study. These units will be especially useful for students undertaking VET studies.

Foundation Mathematics also provides for the continuing mathematical development of students entering VCE, who need mathematical skills to support their other VCE subjects, including VET studies, and who do not intend to undertake Unit 3 and 4 studies in VCE Mathematics in the following year. Provision of this course is intended to complement General Mathematics and Mathematical Methods.

At the end of Unit 1, students will be expected to have covered material equivalent to two areas of study. All areas of study will be completed over the two units. Unit 2 can be used to complement Unit 1 in development of the course material.

Structure
Unit 1 (MA101) and 2 (MA102):

The Areas of Study are:

- **Space, Shape and Design:** This area of study covers the geometric properties of lines and curves, shapes and solids and their graphical and diagrammatic representations.

- **Patterns and Number:** This area of study covers basic number operations and the representation of patterns in number in different forms.

- **Handling Data and Measurement:** This area of study covers the collection, presentation and basic analysis of data.

- **Measurement:** This area of study covers the use of the metric system in familiar and everyday measurement activities.

Entry

The Prerequisite for entry into Foundation Mathematics Unit 1 and 2 is a successful application for the VCAL Program. There are no prerequisites for VCE students to enter Units 1 and 2.
Assessment

Satisfactory Completion

The award of satisfactory completion for a unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit.

Levels of Achievement

Units 1 and 2:

Demonstration of achievement of Outcomes 1 and 2 must be based on a selection of the following tasks:

- Investigations and projects
- Assignments, summary or review notes of mathematics that students have encountered in their work or study
- Tests of mathematical skills developed from investigations.

Unit 3 and 4

There is no Foundation Mathematics Unit 3 and 4.

GENERAL MATHEMATICS

General Mathematics provides courses of study for a broad range of students and may be implemented in a number of ways. Some students will not study Mathematics beyond Units 1 and 2, while others will intend to study Further Mathematics Units 3 and 4. Units 1 and 2 are to be constructed by selecting material from the six areas of study using the following rules:

- For each unit, material covers four or more topics selected from at least three different areas of study.
- Courses intended to provide preparation for study at the Units 3 and 4 level should include selection of material from areas of study which provide a suitable background for these studies.
- Selected material from an area of study provide a clear progression in key knowledge and key skills

Structure

Unit 1 (MA071) and 2 (MA072):

- **Arithmetic**: This area of study covers applications of arithmetic involving natural numbers, integers, rational numbers, real numbers and complex numbers, matrices and sequences and series.
- **Data analysis and simulation**: This area of study covers the display, summary, and interpretation of univariate and bivariate data, and the design, construction and evaluation of probability simulation models.
- **Algebra**: This area of study includes linear and non-linear relations and equations and algebra and logic.
- **Graphs of linear and non-linear relations**: This area of study covers the sketching and interpretation of linear and non-linear graphs, modelling with linear and non-linear graphs, variation and a numerical and graphical approach to rectilinear motion.
- **Decision and business mathematics**: This area of study covers definitions and applications of undirected graphs, linear programming and financial arithmetic.
• **Geometry and trigonometry:** This area of study includes shape and measurement, coordinate geometry, trigonometry, vectors and geometry in two dimensions and three dimensions.

**Entry**
There are no prerequisites for entry to Units 1 and 2.

**Assessment**

**Satisfactory Completion**
Demonstration of achievement of Outcome 1 and 2 must be based on a selection of the following tasks:

- Assignments and tests
- Summary or review notes.
- Projects and modeling tasks
- Short written responses
- Problem-solving tasks

For each unit, demonstration of achievement of Outcome 3 must be based on the student’s performance on a selection of tasks completed in demonstrating achievement of Outcomes 1 and 2, which incorporate the effective and appropriate use of technology in contexts related to topics in the selected material from the areas of study.

**MATHEMATICAL METHODS**
In undertaking this subject, students will develop their ability to apply techniques, routines and processes involving rational and real arithmetic, sets, lists and tables, diagrams and geometric constructions, algebraic manipulation, equations, graphs and differentiation with and without the use of technology. They should have facility with relevant mental and by-hand approaches to estimation and computation. Each of the units are comprised of the same four Areas of Study – **Functions and graphs**, **Algebra**, **Calculus** and **Probability and statistics** with the content and required skills becoming progressively more complex.

**Area of Study 1: MA111**

**Functions and graphs**
In this area of study students cover the graphical representation of simple algebraic functions (polynomial and power functions), transformations of the plane and behaviour of a single real variable and the key features of functions and their graphs such as axis intercepts, stationary points, points of inflection domain (including the concept of maximal, natural or implied domain), co-domain and range, asymptotic behaviour and symmetry. The behaviour of functions and their graphs is explored in a variety of modelling contexts and theoretical investigations and later applied in practical situations.

**Area of Study 2: MA112**

**Algebra**
In this area of study students cover the algebra of functions, including polynomial functions of a low degree, composition of functions, simple functional relations, inverse functions, transformations of the plane and the solution of equations. They also study the identification
of appropriate solution processes for solving equations, and systems of simultaneous equations, presented in various forms. Students cover recognition of equations and systems of equations that are solvable using inverse operations or factorisation, and the use of graphical and numerical approaches for problems involving equations where exact value solutions are not required or which are not solvable by other methods.

Area of Study 3: MA113

Calculus

In this area of study students cover constant and average rates of change and an introduction to instantaneous rate of change of a function in familiar contexts, including graphical and numerical approaches to estimating and approximating these rates of change. They also learn the first principles approach to differentiation, differentiation and anti-differentiation of polynomial functions and power functions by rule, and related applications including the analysis of graphs. In Units 3 and 4, students cover graphical treatment of limits, continuity and differentiability of functions of a single real variable, and differentiation, anti-differentiation and integration of these functions.

Area of Study 4: MA114

Probability and statistics

In this area of study students cover the concepts of event, frequency, probability and representation of finite sample spaces and events using various forms such as lists, grids, venn diagrams, karnough maps, tables and tree diagrams. This includes consideration of impossible, certain, complementary, mutually exclusive, conditional and independent events involving one, two or three events (as applicable), including rules for computation of probabilities for compound events. They also learn the introductory counting principles and techniques and their application to probability and the law of total probability in the case of two events. In Units 3 and 4, students cover discrete and continuous random variables, their representation using tables, probability functions (specified by rule and defining parameters as appropriate); the calculation and interpretation of central measures and measures of spread; and statistical inference for sample proportions. The focus is on understanding the notion of a random variable, related parameters, properties and application and interpretation in context for a given probability distribution.

Entry

A student must undertake each unit of Mathematical Methods in sequence to appropriately build their skills in preparation for Units 3 and 4.

Assessment

Units 1 and 2

All assessments at Units 1 and 2 are school-based. Procedures for assessment of levels of achievement in Units 1 and 2 are a matter for school decision.

Demonstration of achievement of outcomes are based on the student's performance on a selection of the following assessment tasks:

- Assignments
- Summary or review notes
- Modelling tasks
- Problem-solving tasks
- Mathematical investigations
- Tests
Units 3 and 4

Demonstration of achievement of outcomes are based on the student’s performance on an application task in Unit 3; 6 modelling or problem-solving tasks, or a mixture of both in Unit 4 and two end-of-year exams.

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

Unit 3 School-assessed Coursework: 17 per cent
Unit 4 School-assessed Coursework: 17 per cent
Units 3 and 4 examination 1 (no calculator allowed): 22 per cent
Units 3 and 4 examination 2 (calculator allowed): 44 per cent.

FURTHER MATHEMATICS

Further Mathematics consists of a compulsory core area of study ‘Data analysis and Recursion and Financial modeling’ and then a selection of two from 4 modules in the ‘Applications’ area of study.

Assumed knowledge and skills for the ‘Data analysis’ area of study are contained in the topics: Univariate data, bivariate data, linear graphs and modelling, and linear relations and equations from General Mathematics Units 1 and 2.

Structure

Areas of Study: There are two areas of study:

Area of study 1: MA073 - Core material: Data analysis & Recursion and financial modeling—
This area of study covers the presentation, summary, description and analysis of univariate and bivariate sample data. Recursion and financial modelling covers the application of numerical computations and graphical techniques to the formulation and solution of various problems in business and financial contexts, including the solution of related equations.

Area of study 2: MA074 - Applications – module material: Students must undertake two of the following modules. This area of study covers the, geometry and trigonometry, graphs and relations, networks and decision mathematics and matrices in a variety of practical contexts.

Module 1: Matrices. This module covers the matrix representation of discrete data in rectangular arrays, and the application of matrix arithmetic to the analysis of problems in practical situations.

Module 2: Networks and decision mathematics. This module covers the use of undirected and directed graphs (networks) to the modelling of situations involving the spatial representation of relationships and the optimisation of various measures such as coverage, flow, time and allocation.

Module 2: Geometry and measurement. This module covers the application of geometric and trigonometric knowledge and techniques to various two-dimensional and three-dimensional practical spatial problems.

Module 4: Graphs and relations. This module covers the graphical representation and analysis of linear and non-linear relations as models for various practical contexts as well as graphical and algebraic approaches to solving equations and inequalities.
Assessment

Satisfactory Completion

Demonstrated achievement of outcomes specified for the unit.

Assessment of levels of achievement

The student’s level of achievement in Units 3 and 4 will be determined by school-assessed coursework and end-of-year examination.

Units 3 and 4

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

Unit 3 School-assessed Coursework: 20 per cent
Unit 4 School-assessed Coursework: 14 per cent
Units 3 and 4 examination 1: 33 per cent
Units 3 and 4 examination 2: 33 per cent.

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<tr>
<td>Education</td>
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<td>Mathematician</td>
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PLEASE REMEMBER IT IS VERY IMPORTANT YOU SPEAK TO YOUR CURRENT MATHS TEACHER TO ASCERTAIN WHAT LEVEL OF MATHS YOU SHOULD STUDY IN 2017
MEDIA

The theory component of VCE Media is concerned with investigating and analysing how the media – film, TV, radio, magazines, newspapers and social networks – represents people, ideas and values.

The practical component of VCE Media allows students to create their own media products, as individuals and in collaboration. At the same time the roles of various media professionals, such as editors and directors, are studied, along with the production process and employment in the media.

VCE Media requires students to complete a wide range of written tasks. These include:

- Evaluations of media productions, including their own and commercial productions.
- Explanations of how the media represents different groups in society
- Analyses of how values are expressed
- Extensive production designs

Media students must be prepared to complete much of the production work, such as filming and editing, in their own time.

Structure

The study is made up of four units.

Each unit contains three areas of study.

Unit 1: Representation and technologies of representation

Unit 2: Media production and the media industry

Unit 3: Narrative and media production design

Unit 4: Media: process, influence and society’s values

Each unit deals with specific content contained in areas of study and is designed to enable students to achieve a set of outcomes for that unit. Each outcome is described in terms of key knowledge and key skills.

Unit 1: ME011 - Representation and technologies of representation

In this unit students develop an understanding of the relationship between the media, technology and the representations present in media forms. They study the relationships between media technologies, audiences and society. Students develop practical and analytical skills, including an understanding of the contribution of codes and conventions to the creation of meaning in media products, the role and significance of selection processes in their construction, the role audiences play in constructing meaning from media representations, and the creative and cultural impact of new media technologies.

Unit 2: ME022 - Media production and the media industry

In this unit students develop their understanding of the specialist production stages and roles within the collaborative organisation of media production. Students participate in specific stages of a media production, developing practical skills in their designated role. Students also develop an understanding of media industry issues and developments relating to production stages and roles and the broader framework within which Australian media organisations operate.
Unit 3: ME033 - Narrative and media production design

In this unit students develop an understanding of film, television or radio drama production and story elements, and learn to recognise the role and significance of narrative organisation in fictional film, television or radio drama texts. Students examine how production and story elements work together to structure meaning in narratives to engage audiences. Students also develop practical skills through undertaking exercises related to aspects of the design and production process. They complete a media production design plan for a specific media form and audience. They present the relevant specifications as a written planning document, with visual representations that employ media planning conventions appropriate to the media form in which the student chooses to work.

Unit 4: ME034 - Media: process, influence and society’s values

In this unit students further develop practical skills in the production of media products to realise the production design plan completed during Unit 3. Organisational and creative skills are refined and applied throughout each stage of the production process. Students analyse the relationship between media texts, social values and discourses in the media. The nature and extent of media influence, the relationship between the media, media audiences and media regulation are also critically analysed in this unit.

Entry

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

Assessment

Satisfactory Completion

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

Levels of Achievement

Units 1 and 2

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

Units 3 and 4

In the study of VCE Media students’ level of achievement will be determined by School-assessed Coursework, School-assessed Task and an end-of-year examination. The School-assessed Task information and

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

- Unit 3 School-assessed Coursework: 8 per cent
- Unit 4 School-assessed Coursework: 12 per cent
- School-assessed Task: 35 per cent
- End-of-year examination: 45 per cent.
OUTDOOR & ENVIRONMENTAL STUDIES

Outdoor and Environmental Studies brings together two important areas of human interest, environmental studies and outdoor education in the one subject, through academic study of environments and practical experiences of the outdoors.

VCE Outdoor and Environmental Studies is focused around the way humans interact and relate to outdoor environments. This includes environments that have had minimal human influence, as well as environments that have been subject to high levels of human interaction.

Structure

Unit 1: OS011 - Understanding Outdoor Experiences
Introduces students to Outdoor and Environmental Studies through an examination of the ways in which humans understand nature, the types of experiences they have had and their motivations for exploring the outdoors.

Unit 2: OS022 - Environmental Impacts
This unit focuses on developing your understanding of the characteristics of natural environments, human impacts on natural environments and how changes to nature affect people.

Unit 3: OS033 - Relationships with Natural Environments
Explores the ecological, historical and social contexts of relationships between humans and natural environments in Australia. We examine the impact of these relationships on natural environments.

Unit 4: OS034 - The future of human-nature interactions
Focuses on the sustainable use and management of natural environments. We examine the contemporary state of environments in Australia and consider the importance of the maintenance of natural environments.

Entry

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

Assessment

Demonstrated achievement of outcomes specified for the unit.

Levels of Achievement

Units 1 and 2

Procedures for the assessment of levels of achievement in Units 1 and 2 are a matter for school decision.
Units 3 and 4

Percentage contributions to the study score in VCE Outdoor and Environmental Studies are as follows:

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

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<td>Environmental Engineering</td>
<td>Outdoor Recreation</td>
<td>Tourist Guide</td>
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</table>

Camps are a big feature of the Outdoor & Environmental Studies Course. Two in Year 11 and two in Year 12. Talk to Mr. Daff about what they are.
PHYSICAL EDUCATION

VCE Physical Education examines the biological, physiological, psychological, social and cultural influences on performance and participation in physical activity. It focuses on the interrelationship between motor learning and psychological, biomechanical, physiological and sociological factors that influence physical performances, and participation in physical activity. The study of physical activity and sedentary behaviour is significant for the understanding of health, wellbeing and performance of people.

The study enables the integration of theoretical knowledge with practical application through participation in physical activities. There are opportunities for students to apply theoretical concepts and reflect critically on factors that affect all levels of performance and participation.

Structure

Unit 1: PE011
The human body in motion. How does the musculoskeletal system work to produce movement? How does the cardiorespiratory system function at rest and during physical activity?

Unit 2: PE022
Physical activity, sport and society. What are the relationships between physical activity, sport, health and society? What are the contemporary issues associated with physical activity and sport?

Unit 3: PE033
Movement skills and energy for physical activity. How are movement skills improved? How does the body produce energy?

Unit 4: PE034
Training to improve performance. What are the foundations of an effective training program? How is training implemented to improve fitness?

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

Assessment

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

Levels of Achievement

Units 1 and 2
The individual school will determine the level of achievement.

Units 3 and 4
Percentage contributions to the study score in VCE Physical Education are as follows:

Unit 3 school-assessed coursework: 25 per cent
Unit 4 school-assessed coursework: 25 per cent
End-of-year examination: 50 per cent
Students in VCE Physical Education undertake a range of activities that not only assist themselves, but also others.
PHYSICS

Physics seeks to understand and explain the physical world. It examines models and ideas used to make sense of the world and which are sometimes challenged as new knowledge develops. By looking at the way matter and energy interact through observations, measurements and experiments, physicists gain a better understanding of the underlying laws of nature.

In VCE Physics students develop a range of inquiry skills involving practical experimentation and research, analytical skills including critical and creative thinking, and communication skills. Students use scientific and cognitive skills and understanding to analyse contemporary physics-related issues and to communicate their views from an informed position.

Structure

Unit 1: PH011 – The ideas that explain the physical world.

This unit focuses on the main concepts that are used to describe the physical world. It contains 3 areas of study. The first investigates temperature and heat, describing it at a molecular level and applying this understanding to the environment and various heating and cooling systems. The second area of study investigates basic AC and DC electrical systems, transformers and the nature of electricity itself. The last area of study investigates the nature of matter and nuclear energy.

Unit 2: PH022 – What do experiments reveal about the physical world.

This unit focuses on designing and using experiments to build an understanding of the physical world. Again it is split into 3 Areas of Study. The first of these describes how objects move and the Newtonian laws that model this. The second Area of Study allows students to choose from 12 different topics that either support the work already covered in VCE Physics or other subjects and interests. The final Area of Study focuses on designing and carrying out a Practical investigation linked to further developing the student’s knowledge of one of the previous two Areas of study.

Unit 2 research topics:

What are stars?
Is there life beyond Earth’s Solar System?
How do forces act on the human body?
How can AC electricity charge a DC device?
How do heavy things fly?
How do fusion and fission compare as viable nuclear energy power sources?
How is radiation used to maintain human health?
How do particle accelerators work?
How can human vision be enhanced?
How do instruments make music?
How can performance in ball sports be improved?
How does the human body use electricity?
Unit 3: PH033 – How do fields explain motion and electricity?

This unit explores how gravitational, electrical and magnetic fields are able to apply force and thereby affect the motion of objects. The Areas of study break this up into a study of the fields themselves, generation of electrical power and motion itself and its relation to energy and mass.

Unit 4: PH034 – How can two contradictory models explain both light and matter?

The final physics unit concerns the main models that have been used to light and matter and how they can be combined to give us a clearer picture of the true nature of these phenomena. It looks at the wave model in detail the similarities between light and matter and culminates in a Practical investigation that can focus on any of the material contained in either Units 3 or 4.

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. Students entering Unit 3 without Units 1 and/or 2 may be required to undertake additional reading as prescribed by their teacher.

Assessment

Satisfactory Completion

Demonstrated achievement of outcomes specified for the unit.

Levels of Achievement

Units 1 and 2

Individual school decision on levels of achievement.

Units 3 and 4

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

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

Pathways

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<td>Engineering</td>
<td>Refrigeration &amp; Air</td>
<td>Nuclear Medicine</td>
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PRODUCT DESIGN & TECHNOLOGY

Product Design and Technology focuses on developing an understanding of the social, economic and environmental consequences of design choices and decision making. Students develop skills to critically analyse the purpose, processes and products associated with design and technological innovation and activity. They develop the ability to understand, communicate and develop creative solutions while using tools, resources and human capabilities to complete a task for a given context.

Structure

Unit 1: DT011 - Product redesign and sustainability
This unit focuses on the analysis, modification and improvement of a product design with consideration of the materials used and issues of sustainability. Finite resources and the proliferation of waste require sustainable product design thinking. Many products in use today have been redesigned to suit the changing needs and demands of users but with little consideration of their sustainability.

Additionally, knowledge of the source, origin and processing of materials is central to sustainable practices. Students consider the use of materials from a sustainable viewpoint. Sustainable practices claimed to be used by designers are examined.

Unit 2: DT022 - Collaborative Design
In this unit each student works as a member of a team to design and develop a product range or contribute to the design and production of a group product. This mirrors professional design practise where designers often work within a multidisciplinary team to develop solutions to design problems. Team members contribute their expertise, share research findings and develop viable solutions that conform to the needs and requirements outlined in a design brief.

Restrictions and parameters within design may be determined by end-user’s needs, producer’s requirements, social conventions and environmental concerns. This unit focuses on the impact of these factors on the design solution.

In this unit, the student works both individually and as a member of a small design team to address a problem.

Unit 3: DT033 - Applying the product design process
In this unit students are engaged in the design and development of a product that meets the needs and expectations of a client and/or an end-user, developed through a design process and influenced by a range of complex factors. These factors include the purpose, function and context of the product; human-centred design factors; innovation and creativity; visual, tactile and aesthetic factors; sustainability concerns; economic limitations; legal responsibilities; material characteristics and properties; and technology. Design and product development and manufacture occur in a range of settings. An industrial setting provides a marked contrast to that of a ‘one-off situation’ in a small ‘cottage’ industry or a school setting. Although a product design process may differ in complexity or order, it is central to all of these situations regardless of the scale or context. This unit examines different settings and takes students through the Product design process as they design for others.
Unit 4: DT034 - Product development, evaluation

Evaluations are made at various points of product design, development and production. When judging the suitability and viability of design ideas and options designers refer to the design brief and evaluation criteria in collaboration with a client. Designers may also base design decisions on intuition and experience.

With increased focus on environmental, economic and social viability, the impact of products throughout their life cycle can be analysed and evaluated.

Comparisons with similar products help to judge the success of a product in relation to a range of design factors and fundamentals. In this unit, students use comparative analysis and evaluation methods to make judgments about product design and development.

Students continue to develop and manufacture the product designed in Unit 3, Outcome 3, and record the production processes and modifications to the work plan and product. They evaluate the effectiveness and efficiency of techniques they used and the quality of their product with reference to evaluation criteria.

Entry

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

Assessment

Satisfactory Completion

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

Levels of Achievement

Units 1 and 2

Individual school decision on levels of achievement.

Units 3 and 4

School assessed coursework and examination:

Unit 3 & Unit 4 school-assessed coursework: 20 per cent
School-assessed task: 50 per cent
End-of-year examination: 30 per cent

Pathways

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<th>University</th>
<th>TAFE</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Building construction</td>
<td>Apprenticeship</td>
</tr>
<tr>
<td>Architecture</td>
<td>Fashion &amp; Textiles</td>
<td>Builder / Carpenter</td>
</tr>
<tr>
<td>Fashion Design</td>
<td>Furnishing</td>
<td>Textile designer</td>
</tr>
</tbody>
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PSYCHOLOGY

In VCE Psychology students explore how people think, feel and behave. Through a range of inquiry tasks such as experiments, observational studies, self-reports, simulations, animations and case studies, they investigate the connection between the brain and behaviour by focusing on key interrelated aspects of the discipline: the interplay between genetics and environment, individual differences and group dynamics, sensory perception and awareness, memory and learning, and mental health.

Students pose questions, formulate research hypotheses, operationalise variables, collect and analyse data, evaluate methodologies and results, justify conclusions, make recommendations and communicate their findings. They also learn to critically assess the strengths and limitations of science, respect evidence-based conclusions and gain awareness of the ethical, social and political contexts of scientific endeavours.

Structure

Unit 1: PY011 - How are behaviour and mental processes shaped?

This unit focuses on the structure and functioning of the human brain and its role in the overall functioning of the human nervous system. Students investigate brain plasticity, the impact of brain damage and consider the complex nature of psychological development.

Unit 2: PY022 - How do external factors influence behaviour and mental processes?

In this unit students investigate how perception of stimuli enables a person to interact with the world around them and how their perception can be distorted. They evaluate attitudes, perception of themselves and relationships with others. Students explore a variety of factors and contexts that can influence the behaviour of an individual and groups.

Unit 3: PY033 - How does experience affect behaviour and mental processes?

In this unit students examine the functioning of the nervous system to explain how a person can interact with their environment, explore how stress may affect psychological functioning and consider the causes and management of stress. Students investigate how mechanisms of memory and learning lead to the acquisition of knowledge, new capacities and changed behaviours. They consider the limitations of memory and how memory can be improved.

Unit 4: PY034 - How is wellbeing developed and maintained?

In this unit, students examine how changes in levels of consciousness can affect mental processes and behaviour. They look at the role of sleep and sleep disturbances. Students explore the mental health continuum and apply a biopsychosocial approach to analyse mental health and disorder. They use specific phobia to illustrate how the development and management of a mental disorder can be considered as an interaction between biological, psychological and social factors.

Entry

There are no prerequisites for entry to Units 1, 2 and 3. Students must undertake Unit 3 prior to undertaking Unit 4. It is advised that students complete Units 1 and 2 before starting Unit 3.
Assessment
Satisfactory Completion
Demonstrated achievement of outcomes specified for the unit.

Levels of Achievement
Units 1 and 2
Examples of SACs students will undertake in Units 1 and 2 include:
Tests    Practical Research Investigations and Reports    Analyses of Research
Oral/Visual/Digital Presentations    Log Book of Practical Activities
Media Analysis/Response

Units 3 and 4
Examples of the SACs students will undertake in Units 3 and 4 include:
Tests    Folios of Practical Activities    Data Analyses and Evaluation of Research
Flow Charts    Media Analysis/Response    Practical Research Investigations and reports
Structured Scientific Poster

Percentage contributions to the study score in VCE Psychology are as follows:
Unit 3 School-assessed Coursework: 16 per cent
Unit 4 School-assessed Coursework: 24 per cent
End-of-year examination: 60 per cent.

Lachie, Brandon & Mitchell have enjoyed the practical and theoretical aspects of Psychology, undertaking various experiments as part of the course.
Excursion

Biennial Excursion (odd years):

What: Melbourne Museum
(“The Mind: Enter the Labyrinth” and “The Human Body” exhibitions)
Epworth Sleep Centre

Where: Melbourne

Duration: Day

Why: Students see a range of concepts in action at the museum and learn about stages of sleep and experience a sleep laboratory at the Sleep Centre

Approximate cost: $50

Pathways

<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychology</td>
<td>Diploma of Community Service work</td>
<td>Most psychology-related employment requires further study and training but this subject will assist you in your interactions with other people, which is a vital part of any employment</td>
</tr>
<tr>
<td>Forensic Science</td>
<td>Diploma Early Childhood Education &amp; Care</td>
<td></td>
</tr>
<tr>
<td>Criminology</td>
<td>Diploma of Nursing</td>
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<tr>
<td>Social Work</td>
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</tbody>
</table>

Education

ATAR requirements vary from 55 – 90 depending on the course but most require a score of at least 25 in English

Various TAFEs:
- Social Science
- Child Care
- Education
- Health Science
- Nursing
STUDIO ARTS

The study aims to develop in students the ability to establish effective art practices. The units investigate the art industry and how artists have interpreted topics and developed personal styles. Students have the opportunity to work in a range of media, including drawing, painting, photography, mixed media, digital media, sculpture and printmaking.

Structure

Unit 1: SA011 – Studio Inspiration and techniques
This unit focuses on using sources of inspiration and ideas as the basis for artworks and exploring a wide range of materials and techniques as tools for translating ideas, observations and experiences into visual form. Students also explore the ways in which artists from different times and locations have interpreted ideas and sources of inspiration.

Unit 2: SA022 – Studio exploration and concepts
This unit focuses on establishing and using a design process to produce artworks. The design process includes the use of sources of inspiration, experimentation with materials and technique. Students also develop skills in the visual analysis of artworks.

Unit 3: SA033 - Studio practices and processes
This unit focuses on the implementation of the design process leading to the production of a range of potential solutions. The unit also explores professional art practices in relation to particular art form(s) and the development of distinctive styles in artworks. Students also explore and examine the practice of at least two artists and artworks in different historical and cultural contexts that reflect the artists’ interpretations of subject matter and influences.

Unit 4: SA034 - Studio practice and art industry contexts
This unit focuses on the production of finished artworks. In developing this folio, students present visual and written documentation explaining how potential directions generated in Unit 3 will be used to produce a cohesive folio of finished artworks. This unit also explores aspects of artists’ involvement in the current art industry.

Entry

There are no prerequisites 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.
Levels of Achievement

Units 1 and 2
Individual school decision on levels of achievement. Assessment tasks include:
Written analysis of artworks and art periods
Folio of experimentation work
Folio of finished artworks

Units 3 and 4
School-assessed tasks and an end-of-year examination.
Unit 3 School-assessed Coursework: 5 %
Unit 4 School-assessed Coursework: 5 %
Units 3 and 4 School-assessed Task: 60 %
End-of-year examination: 30 %
<table>
<thead>
<tr>
<th>University</th>
<th>TAFE</th>
<th>Employment</th>
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<tbody>
<tr>
<td>Swinburne - Bachelor of Design (Communication Design) 3yrs Melbourne</td>
<td>GoTAFE – Certificate IV in Digital and Interactive Games 850hrs Shepparton NO PRE-REQUISITES</td>
<td>Art gallery roles, photojournalism, web design, interior design, practicing artist, education, sign writing, tattoo artist, graphic designer, fashion designer</td>
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<tr>
<td>RMIT - Bachelor of Art (Photography) 3yrs Melbourne</td>
<td>Whitehouse Institute – Diploma of Applied Fashion Design and Technology 3Yrs Melbourne</td>
<td></td>
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<tr>
<td></td>
<td>Bendigo TAFE – Certificate IV in Visual Arts 1yr</td>
<td>PRE REQUISITES – intermediate Numeracy and Literacy</td>
</tr>
</tbody>
</table>
VISUAL COMMUNICATION AND DESIGN

The study aims to develop and apply drawing skills using a range of techniques to make their design thinking visible. Students have the opportunity to develop a range of skills in selecting and applying media, materials, and manual and digital methods to suit design purposes. The units investigate the historical, social, cultural, environment and contemporary factors influencing visual communications.

Structure

Unit 1: VC011 – Introduction to visual communication design

This unit focuses on using visual language to communicate messages, ideas and concepts. This involves acquiring and applying design thinking skills as well as drawing skills to make messages, ideas and concepts 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.

Unit 2: VC022 – Applications of visual communication design

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

Unit 3: VC033 – Design thinking and practice

In this unit students gain an understanding of the process designers employ to structure their thinking and communicate ideas with clients, target audiences, other designers and specialists. Through practical investigation and analysis of existing visual communications, students gain insight into how the selection of methods, media, materials and the application of design elements and design principles can create effective visual communications for specific audiences and purposes. They investigate and experiment with the use of manual and digital methods, media and materials to make informed decisions when selecting suitable approaches for the development of their own design ideas and concepts.

Unit 4: VC034 – Design development and presentation

The focus of this unit is the development of design concepts and two final presentations of visual communications to meet the requirements of the brief. This involves applying the design process twice to meet each of the stated needs. Students refine and present two visual communications within the parameters of the brief. They reflect on the design process and the design decisions they took in the realisation of their ideas. They evaluate their visual communications and devise a pitch to communicate their design thinking and decision making to the client.

Entry

There are no prerequisites 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.

Levels of Achievement
Units 1 and 2
Individual school decision on levels of achievement. Assessment tasks include:
Written report of a case study
Folio of technical drawings, typography and image ideas
Folio of finished presentations.

Units 3 and 4
School-assessed tasks and an end-of-year examination.
Unit 3 School-assessed Coursework: 20 %
Unit 4 School-assessed Coursework: 5 %
School Assed Task: 40 %
Unit 3 and 4 examination: 35 %

Pathways

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<tr>
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<tbody>
<tr>
<td>Advertising Design</td>
<td>Graphic Design</td>
<td>Art gallery roles, photojournalism, web design, interior design, practicing artist, education, sign writing, tattoo artist, graphic designer, fashion designer</td>
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<tr>
<td>Industrial Design</td>
<td>Digital Media</td>
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<tr>
<td>Visual Arts</td>
<td>Interior Design</td>
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<tr>
<td>Film Television Audio</td>
<td>Fashion &amp; Textiles</td>
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Rushworth P-12 College
2017 VCE / VCAL Subject Selection

Surname: ________________________________

Given Name: ________________________________

Please circle your chosen pathway:

<table>
<thead>
<tr>
<th>VCE</th>
<th>VCAL</th>
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Completed VCE / VET subjects in Year 10

<table>
<thead>
<tr>
<th>Subject 1</th>
<th>Subject 2</th>
<th>Subject 3</th>
<th>Subject 4</th>
<th>Subject 5</th>
<th>Subject 6</th>
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</thead>
<tbody>
<tr>
<td>VCE Year 11 Subject Choice</td>
<td>Mathematics: Foundation or, General (Select One, Foundation does not continue to Year 12)</td>
<td>English</td>
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<tr>
<td>VCE Year 12 Subject choice</td>
<td>English</td>
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If your selected subjects do not run, please complete details of your preferred additional subject choices below.

<table>
<thead>
<tr>
<th>2nd preference</th>
<th>3rd preference</th>
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<tbody>
<tr>
<td>VCE Year 11</td>
<td></td>
</tr>
<tr>
<td>VCE Year 12</td>
<td></td>
</tr>
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</table>

VCAL Students

<table>
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<tr>
<th>Proposed VET course</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAFE Course application complete</td>
</tr>
</tbody>
</table>

YES / NO

Proposed Work Placement Name
Contact Phone Number

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<tr>
<th>Work Placement confirmed</th>
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</table>

YES / NO

Year 12 VCE subject
(Senior VCAL only)
1.
2.

Parent signature: _________________________________________

Student signature: _________________________________________

This form must be completed and returned to Pathways Manager by Friday 12th August.

Date received: ___/___/2016