

LATER YEARS

Handbook Guide 2021
Years 9-12
Including VCAL & VETiS

CURRICULUM



MARYBOROUGH EDUCATION CENTRE



MARYBOROUGH EDUCATION CENTRE

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Dear Parents, Carers and Students

The Later Years program at Maryborough Education Centre provides students with a diverse range of options that cater for individual aspirations, interests and talents. The program is aimed to provide all students with a unique timetable that gives individuals the opportunity to maximise their potential and realise their goals for life after school. Our Later Years program centres around the Victorian Certificate of Education (VCE), Victorian Certificate of Applied Learning (VCAL) and a wide range of Vocational Education and Training in Schools (VETiS) subjects that can contribute towards the successful completion of either VCE or VCAL.

It is in Year 9 that students, with the advice of school staff and parents, are first given the opportunity to select an individualised program. At this level, students have the option to blend pathways, prior to making firm decisions about their future study choices. The Year 10 program aims to build a strong foundation for students to enter into the VCE or VCAL. Many students in Year 10 have the option of electing into a VCE or VETiS subject that helps to give them a taste of what the next couple of years entail.

In Year 11 and 12, all students are offered a comprehensive two year program of study, either in the VCE or VCAL. Both certificates are recognised by tertiary institutions and employers, and provide students with a range of post-school choices. Students wishing to proceed to university are strongly encouraged to undertake the VCE, while those seeking employment or TAFE options may consider the VCAL as suitable options.

Students who are funded under the Program for Students with Disabilities are able to have a program designed to meet their specific needs and our particular setting provides these students with the chance of a blended program between mainstream classes and the specialist setting.

Regardless of the certificate that students elect to undertake, we have a culture of high expectations, where students are encouraged to display our school values. Our Later Years students are expected to be positive role models at all time for our younger students. We expect that all of our students seek to achieve their personal best and accomplish what they perhaps thought was impossible.

We encourage our students to take on leadership roles within the school and to make use of the exceptional resources that we have available for them. Our teaching staff are highly qualified and committed to the best outcomes for all students.

Please take the time to carefully read the subject descriptions and pathways described in the booklet, and do not hesitate to seek advice from our full-time Careers Advisor or any of the Later Years teaching team.

David Sutton
Principal

Contents

General Information

Contacts	4
Curriculum Overview	5
Victorian Curriculum	6
VCE, VETIS, SBAT & HSAT	7 & 8
VCAL	9
Careers	10

Year 9 and 10 subject descriptions

Year 9 Subject Overview	11
Year 10 Subject Overview	12
Arts	13-16
English	17-19
Health & Physical Education	20-24
Humanities	25-29
Languages (Indonesian)	30-31
Mathematics	32-37
Science	38-43
Technology	44-49
VCAL - Foundation	50

VCE subject descriptions

VCE Subject Overview	51
Arts	52-59
English	60-61
Health & Physical Education	62-65
Humanities	66-71
Languages (Indonesian)	72
Mathematics	73-79
Science	80-87
Technology	88-91

Contents

VETiS subject descriptions	Page
VETiS Subject Overview	92
Highlands LLEN VET Cluster	93
10279NAT Certificate II in Applied Languages (Indonesian)	94
MST20616 Certificate II in Applied Fashion Design & Technology	95
AUR20716 Certificate II in Automotive Vocational Preparation	96
22338VIC Certificate II in Building and Construction (Carpentry)	97
SHB20216 Certificate II in Salon Assistant (Hairdressing)	98
SIT20416 Certificate II in Hospitality (Kitchen Operations)	99
CAU30915 Certificate III in Music Industry (Sound Production)	100
SIS30115 Certificate III in Sport and Recreation	101
VCAL subject descriptions	Page
VCAL Subject Overview	102
Literacy	103
Numeracy (Foundation Mathematics)	104
Work Related Skills	105
Personal Development Skills	106
Skills For Further Study	107
Specialist setting	Page
Programs For Students With Disabilities Celebrating Success	108
Alternate Programs For Students With Special Needs & Disabilities	109
Further information	Page
Pathways (Bullseye posters)	110-111
KLA Maps	112-114
Glossary	115-116
Calculators	117
Humanities Subject Rotation 2021/2022	118
Planner	119
Planner (Four Year Overview)	120

Contacts

Maryborough Education Centre

54617900

General Enrolment Enquiries

Assistant Principal (7-12)	Katherine King
Assistant Principal (Specialist)	Julie Reiger
Sub School Leader (7-10)	Ben Brady
Sub School Leader (11-12)	Terry Hillier

Subject Specific Enquiries

Year 9 Coordinator	Abby Hansen
Year 10 Coordinator	Ashlee Lierich
Year 11 Coordinator	Jordan Macilwain
Year 12 Coordinator	Christina Harriott
VCAL Coordinator	Robert Brown
VCAL Coordinator (Specialist)	Kaitlyn Kile
VETiS Coordinator	Jessi Muston
External Learning Coordinator (VCE)	Jeremy Hafford
Careers and Pathways Coordinator	Jessi Muston
Headstart Program Coordinator	Martin Mark
Arts	Jenny Latch
English/Humanities	Bethany Fitzpatrick
Health/PE	Alicia Cassidy/Rachael Palmer
Languages	Shelby Stewart
Mathematics/Science	Chris Nancarrow
Technology	Geoff Macilwain

Curriculum

Overview

Curriculum Structure and Organisation Year 9 and 10

The Year 9 and 10 program ensures that there is core learning in literacy and numeracy to prepare students for the next step in their pathway plan. Students are required to undertake units in English, Mathematics, Science and Humanities. In Year 9, there are also compulsory Health and Physical Education classes.

YEAR 9 SELECTION OF SUBJECTS	YEAR 10 SELECTION OF SUBJECTS
<p>Each subject is divided into semester length units of six periods a week*</p> <p><i>*Health & Physical Education only 4 periods a week</i></p> <p><i>*Respectful Relationships only 2 periods a week for one semester</i></p> <p><i>* Inquiry & Investigations only 2 periods a week for one semester</i></p> <p><i>Compulsory all year</i> English Mathematics Health and Physical Education (refer above)</p> <p><i>Compulsory for one semester</i> Science Humanities Inquiry & Investigations</p> <p><i>Electives</i> Arts Health & Physical Education* Humanities* Languages Science* Technology</p> <p><i>* additional to compulsory subjects</i></p>	<p>Each subject is divided into semester length units. Each unit is six periods a week.</p> <p><i>Compulsory all year</i> English Mathematics</p> <p><i>Compulsory for one semester</i> Science Humanities</p> <p><i>Electives</i> Arts Health & Physical Education Humanities* Languages Science* Technology VETiS § Unit 1&2 subject §</p> <p><i>* additional to compulsory subjects</i></p> <p><i>§ with permission</i></p> <p><i>VCAL Foundation Refer to page 9</i></p>

Curriculum Structure and Organisation VCE/VETiS/VCAL

The Year 11 and 12 program focuses on the student's chosen pathway and preparation for post-secondary schooling. Students must undertake units in English or VCAL Literacy. Each subject is divided into semester length units. Each unit is six periods a week.

- VCE is an academic pathway which prepares students for University
- VCAL is a 'hands on' pathway which prepares students for work and / or TAFE
- VETiS certificates can be undertaken to complement either a VCE or VCAL pathway.

Curriculum

Overview

The Victorian Curriculum

The design of the Victorian Curriculum F–10 is set out below:

Learning Areas

The Arts

- Drama
- Media
- Arts
- Music
- Visual Arts
- Visual Communication & Design

English

Health and Physical Education

Humanities

- Civics and Citizenship
- Economics and Business
- Geography
- History

Languages

Mathematics

Science

Technologies

- Design and Technologies
- Digital Technologies

Capabilities

- Critical and Creative Thinking
- Ethical
- Intercultural
- Personal and Social

Curriculum

VCE, VETiS, SBAT & HSAT

VCE Minimum Requirements

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

- 3 units from the English group, including a Unit 3-4 sequence
- at least 3 sequences of Unit 3–4 studies other than English, which may include any number of English sequences once the English requirement has been met.

VCE VETiS Programs

VCE VETiS programs provide credit towards the VCE, typically for Units 1 to 4; however, some programs only provide credit at Unit 1 and 2 or Unit 3 and 4 level. VCE VETiS programs also provide credit towards VCAL. However, a student may not be enrolled simultaneously in the VES and NAP version of the same qualification.

Programs offering a study score at Unit 3 and 4 level and programs with enrolment restrictions are indicated on individual VCE VETiS program webpages.

School-based Apprenticeships and Traineeships (SBAT)

In School-based Apprenticeships and Traineeships, students undertake a vocational training program within a part-time employment arrangement. Each student is required to enter into a formal training contract. The School-based Apprenticeship or Traineeship comprises:

- enrolment in the VCE or VCAL at school
- enrolment with a registered training organisation (RTO) in a structured vocational training program that leads to a vocational qualification
- part-time, paid work under an industrial agreement that recognises School-based Apprenticeships and Traineeships
- at least one timetabled day spent on the job or in training during the normal school week
- at least 7 hours of employment and 6 hours of training undertaken per week.

Schools should only enrol a student in a School-based Apprenticeship or Traineeship if the following conditions are met:

- The student is 15 years of age or over
- The student is an Australian citizen or a permanent resident
- The student is in relevant employment
- The principal, or principal's delegate, has signed the training plan and the student is enrolled in a nationally recognised qualification that can be undertaken as a School-based Apprenticeship or Traineeship

Students who undertake an apprenticeship or traineeship that does not satisfy the school-based criteria will be undertaking a 'part-time apprenticeship or traineeship'. This type of arrangement will still provide credit for VCE or VCAL if it is recorded on VASS.

Curriculum

VCE, VETiS, SBAT & HSAT

Head Start Apprenticeships and Traineeships (HSAT)

The Head Start model of SBATs provides students with some variation on the approach of SBAT delivery within one of thirty four prescribed industry training areas. Students interested in undertaking a Head Start Apprenticeship or Traineeship as part of their senior years of schooling need to be strongly committed to completing Year 12 through either a VCE or VCAL pathway.

Within the Head Start model:

- most of the SBAT conditions previously described continue to apply students preferably commence their Head Start Apprenticeship or Traineeship during Year 10 or at the commencement of Year 11 depending upon the qualification/training area.
- students have an increasing amount of time (from 1-3 days per week), in their workplace as they move through their senior years schooling
- case management support is provided to ensure the student effectively balances the demands of work and the completion of their schooling to the end of Year 12
- with the successful completion of their Year 12 students move from undertaking their apprenticeship and traineeship on a part time basis to a full time basis
- employers are enabled to train and mentor young apprentices and trainees who are ready for work, and who will also have higher levels of literacy, numeracy and employability skills.

Curriculum

VCAL

VCAL

There are 3 levels in VCAL:

- Foundation level; knowledge and employability skills development is supported by a strong emphasis on literacy and numeracy skills and preparatory learning.
- Intermediate level; knowledge and employability skills development leads to independent learning, confidence and a high level of transferable skills.
- Senior level; knowledge and employability skills development leads to a high level of interpersonal skills, independent action and achievement of tasks that require decision-making and leadership.

To be awarded the VCAL Certificate, students must successfully complete a learning program that contains minimum of 10 credits and includes:

- curriculum components to the value of at least 1 credit, each of which can be justified against the purpose statement for each of the four VCAL curriculum strands
- a minimum of 2 VCAL units
- 1 credit for Numeracy
- curriculum components to the value of 6 credits at the level of the VCAL award (or above), of which 1 must be for a Literacy Skills unit and 1 for a Personal Development Skills unit. However, credits classified at Foundation level (VCAL Foundation units, and VETiS and FE units at Level 1) cannot contribute to senior level.

<i>Year 10 Foundation level</i>	<i>Year 11 Foundation or Intermediate level</i>	<i>Year 12 Intermediate or Senior level</i>
<ul style="list-style-type: none"> • Everyday Mathematics OR Continuing Mathematics • Literacy or English • Year 10 electives and/or VETiS subject • Work Related Skills Unit 1 & 2 	<ul style="list-style-type: none"> • VCE Foundation Mathematics Unit 1 & 2 • VCAL Literacy • VETiS subject • Work Related Skills Unit 1 & 2 • Personal Development Skills Unit 1 & 2 	<ul style="list-style-type: none"> • Skills for Further Study Unit 1 • VCAL Literacy • VETiS subject • Work Related Skills Unit 1 & 2 • Personal Development Skills Unit 1 & 2

Curriculum

Careers

Work Experience

In Year 10, students are expected to undertake work experience at some time during the year. Year 10 has been identified as the optimum year to undertake work experience, as it gives students time to explore a particular type of employment before they make their VCE or VCAL selections in Year 11, which can help them with choosing a pathway and subjects for years 11 and 12.

Provided students meet the age and aptitude requirements, students from Years 9 and upwards may also undertake Work Experience.

Careers

The Careers Resource Centre (in Craigie) offers a wide range of materials to help students investigate career and educational opportunities. It is important students check with the Careers Coordinator (especially Years 9 and 10) when selecting subjects, as many Universities and some TAFE require specific subjects to undertake their courses.

The Careers Coordinator offers the following for students, parents and teachers:

- Counselling and advice on career pathways
- Information on tertiary studies
- Advice and assistance in applying for tertiary courses
- Advice and information on scholarships and cadetships
- Information on student accommodation
- Employment opportunities

Parents are also encouraged to contact the Careers Coordinator for advice on careers issues.

Contact: Careers & Pathways Coordinator Ph. 5461 7980

Year 9

Subject overview

Compulsory

English (all year)

Mathematics (all year) *choose 1

Essential Science (1 semester)

Humanities (one semester) *choose 1

PE/Health (all year)

Inquiry & Investigations (1 semester)

Respectful Relationships (1 semester)

Electives

Art

Drama

Media

Visual Communication & Design

Sports Coaching

PE Elective

Health Education Elective

The World at War

Crime, Punishment & the Law

Rise of the Machines

Power and the People

Faith and Fortune

Indonesian

Forensic Science

How Things Work

Home Science

Woodwork B

Food & Beverage A & B

Digital Technologies

Automotive

Engineering

Inquiry & Investigations subject list will be confirmed for selection in Term 4, 2020.

Please note that some subjects may not run in 2021 subject to student selection or staff availability.

Year 10

Subject overview

Compulsory

English (all year) *choose 1
Mathematics (all year) *choose 1
Core Science (1 semester)
Humanities (1 semester) *choose 1

Electives

Art
Drama
Media
Visual Communication & Design
Sports Coaching
PE Elective
Outdoor and Environment Education
The World at War
Crime, Punishment & the Law
Rise of the Machines
Power and the People
Faith and Fortune
Indonesian (Certificate II in Applied Language)
Forensic Science
How Things Work
Home Science
Pre-VCE Science
Food & Beverage A & B
Pre-VCE Food Studies
Woodwork A & B
Digital Technologies
Automotive
Engineering

Y VCAL – Work Related Skills

E VETiS subjects

A VCE Unit 1&2 subjects

R *Please note that some subjects may not run in 2021 due to student selection or staff availability.*

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Arts

ART

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This course is designed to provide students with general art skills in a variety of materials and techniques. Students have the opportunity to explore various art styles and art forms.

LEARNING OUTCOMES

- Folio development
- Exploration of a range of materials including painting, drawing, printmaking, ceramics, collage, digital art and 3D art
- Research and written responses to artwork

KEY SKILLS DEVELOPED

- Practical skills
- Written analytical skills
- Explorations of materials
- Understand the design process

ASSESSED TASKS

- Folio practical tasks
- Written research and responses
- End of semester written examination

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCE Studio Arts or VCE Visual Communication and Design.

Arts

DRAMA

This is an elective subject that runs for 1 semester.

Students wishing to continue the study of Drama after this course will be enrolled into Unit 1 Drama in 2022.

SUBJECT DESCRIPTION

This subject is designed to give students an introduction to the elements of drama, as well as expressive and performance skills. Students will create and analyse work from a range of performance styles that may include improvisation, mime, clowning, Commedia dell'arte, Process Drama and Theatre of the Oppressed. Students will also be taught how to analyse professional performance.

LEARNING OUTCOMES

- Using expressive skills to create character
- Using playmaking techniques to develop original works
- Creating, developing and presenting an ensemble performance to an audience
- Analysing live theatre

KEY SKILLS DEVELOPED

- Writing using drama terminology
- Critical analysis of theatrical performances
- Acting skills
- Ensemble skills (working collaboratively)
- Creative and divergent thinking/problem solving
- Technical skills regarding the operation of a theatre (lighting and sound etc.)

ASSESSED TASKS

- Written analysis of a live performance
- Presentation of performances
- Reflection and evaluation of performances
- End of semester examination

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCE Drama.

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Arts

MEDIA

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

Media is the study of all modern media, from developing technical skills, to the study of film and print texts.

LEARNING OUTCOMES

- Analysing film and print texts
- Understanding the audience's role in reading the media
- Planning and producing a short film

KEY SKILLS DEVELOPED

- Critical analysis of media texts
- Technical media production skills
- Writing using media terminology
- Creative planning skills

ASSESSED TASKS

- Written assessments
- Production design plan folio
- Assessed technical tasks and media products
- End of semester written examination

PATHWAYS

This subject may lead into year 11/12 Media.

Arts

VISUAL COMMUNICATION & DESIGN

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This course is an introduction to general visual communications and design, including skills in technical drawing and design.

LEARNING OUTCOMES

- Technical drawing
- Observational drawing
- Exploration of materials
- Analysing products
- Digital designing

KEY SKILLS DEVELOPED

- Practical observational
- Technical drawing skills
- Creativity and designing
- Understanding the design process
- Exploration of materials

ASSESSED TASKS

- Technical drawing tasks
- Observational drawing tasks
- Visual communication tasks, including diagrams and mapping
- Design tasks

PATHWAYS

This subject may lead into year 11/12 pathways, including VCE Visual Communication & Design.

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English

YEAR 9 ENGLISH

This is a compulsory subject that runs all year.

SUBJECT DESCRIPTION

The English curriculum is built around the three interrelated strands of Language, Literature and Literacy. Students will develop their reading, writing, listening and speaking skills. The focus of Year 9 is on developing each student's knowledge, understanding and skills in listening, reading, viewing, speaking, writing and creating. Learning in English builds on concepts, skills and processes developed in earlier levels. Students will be reading a range of texts, particularly narrative and persuasive texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students will develop competence and confidence in creating written, oral and multi-modal texts.

LEARNING OUTCOMES

- Study a variety of books, newspaper articles and films
- Develop critical understanding of the contemporary media, and the differences between media texts
- Create a range of imaginative, informative and persuasive types of texts, including narratives, reports, discussions and literacy analyses
- Complete exercises to improve spelling, grammar and comprehension

KEY SKILLS DEVELOPED

- Read independently
- Write fluently, presenting ideas in a logical order
- Ability to articulate ideas to individuals, small groups and larger groups
- Compare the way that themes, issues and ideas are presented in different texts

ASSESSED TASKS

- Analytical essays about the texts
- Oral presentations
- Creative responses to texts
- Comparative analyses of short texts
- Analysis of the way that argument and language is used in persuasive texts
- Written piece presenting a point of view

PATHWAYS

This subject may lead into Year 10 English or Year 10 Literacy.

English

YEAR 10 ENGLISH

This is a compulsory subject that runs all year.

SUBJECT DESCRIPTION

The English curriculum is built around the three interrelated strands of Language, Literature and Literacy. Students develop their reading, writing, listening and speaking skills. The focus of Year 10 is on developing each student's knowledge, understanding and skills in listening, reading, viewing, speaking, writing and creating. Learning in English builds on concepts, skills and processes developed in earlier levels. Students read a range of texts, particularly narrative and persuasive texts, in order to comprehend, appreciate and analyse the ways in which texts are constructed and interpreted. Students will develop competence and confidence in creating written, oral and multi-modal texts.

LEARNING OUTCOMES

- Study a variety of stories, newspaper articles, songs, poetry, plays and films
- Develop critical understanding of the contemporary media, and the differences between media texts
- Write in a variety of styles
- Create a range of imaginative, informative and persuasive types of texts, including narratives, performances, reports, discussions and literacy analyses
- Complete exercises to improve spelling, grammar and comprehension

KEY SKILLS DEVELOPED

- Read independently
- Write fluently, presenting ideas in a logical order
- Ability to articulate ideas to individuals, small groups and larger groups
- Compare the way that themes, issues and ideas are presented in different texts

ASSESSED TASKS

- Analytical essays about the texts
- Oral presentations
- Creative responses to texts
- Comparative analyses of short texts
 - Analysis of the way that argument and language is used in persuasive texts

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PATHWAYS

This subject may lead into VCE English.

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English

YEAR 10 LITERACY

This is a compulsory subject that runs all year.

Entry into the subject will prepare students for a vocational pathway.

SUBJECT DESCRIPTION

The Literacy curriculum is built around the English strands of the Victorian Curriculum. Students develop their reading, writing, listening and speaking skills. In Literacy students take part in classroom activities which are designed to make them confident and articulate communicators who can express their thoughts verbally and in writing, think critically and creatively, and read a wide range of fiction and non-fiction texts. Student will learn to make suitable choices about the language they use in different contexts. They will read and discuss novels, watch and discuss and write about films, and read, view and discuss news and current affairs.

LEARNING OUTCOMES

- Study a variety of books, newspaper articles and films
- Develop critical understanding of the contemporary media, and the differences between media texts
- Create a range of imaginative, informative and persuasive types of texts, including narratives, reports, discussions and literacy analyses
- Complete exercises to improve their spelling, grammar and comprehension

KEY SKILLS DEVELOPED

- Read independently
- Write fluently, presenting ideas in a logical order
- Ability to articulate ideas to individuals, small groups and larger groups

ASSESSED TASKS

- Reading comprehension tests
- Reflective writing about texts
- Oral presentations
- Creative responses to texts

PATHWAYS

This subject is designed for students who wish to embark on a vocational education, training and employment pathway, and are planning to undertake VCAL in Year 11. It is not suitable for students who are planning to undertake VCE.

Health & Physical Education

YEAR 10 OUTDOOR & ENVIRONMENT EDUCATION

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

This unit will focus on student's relationship with the outdoors. Students will be able to develop outdoor recreation skills.

LEARNING OUTCOMES

Sessions will include direct outdoor experiences, as well as classroom activities.

Some adventure activities to be undertaken may include:

- Bush walking, abseiling and rock climbing
- Orienteering
- Team building activities
- Canoeing

KEY SKILLS DEVELOPED

- Navigation
- Use of equipment, camp craft, group skills
- Observation and recording
- Safety planning and preparation
- Care of the environment
- Leadership

KEY KNOWLEDGE

- Minimal impact strategies
- History of land use of the local area
- Personal, school and business connections with the environment

ASSESSED TASKS

- Planning for and attendance on practical activities and overnight camp/excursions
- Completion of set class work and assignments

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCAL Personal Development, VCE Physical Education and VCE Health and Human Development or VETIS Sport and Recreation.

*Special requirements: there is a cost to this subject to cover camps and excursions.

Health & Physical Education

YEAR 9 HEALTH AND PHYSICAL EDUCATION

This is a compulsory subject that runs for the whole year.

SUBJECT DESCRIPTION

This subject will have a practical and theoretical component.

The focus will be on:

- being healthy, safe and active
- communicating and interacting for health and wellbeing
- contributing to healthy and active communities
- moving the body
- understanding and learning through movement

LEARNING TASKS

- Practical activity classes
- Written assignments, tests and workbook
- Contribution to discussions, group work and role plays

KEY SKILLS DEVELOPED

- Performing and refining specialised movement skills in challenging movement situations
- The ability to explain the importance of cooperation, leadership and fair play across a range of health and movement contexts
- Be able to propose and evaluate interventions to improve fitness and physical activity levels in their communities
- Identify and analyse factors that contribute to respectful relationships
- Compare and contrast a range of actions that could be undertaken to enhance their own and others' health, safety and wellbeing

ASSESSED TASKS

- Will be based on participation in practical and theory work.
- Students will need to be an active member of the practical sessions, as well as complete tests, assignments, comprehensive workbook and learning activities

PATHWAYS

This subject may lead into Year 10 Physical Education, Year 10 Health Education elective, Outdoor and Environment Education and Year 11/12 pathways, including VCAL Personal Development, VCE Physical Education and VCE Health and Human Development and VETiS Sport & Recreation.

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Health & Physical Education

SPORTS COACHING

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

This subject is designed to provide students with the opportunity to engage with peers and community members as mentors or volunteers, exposing them to career pathways while developing self-confidence and organisational skills.

LEARNING OUTCOMES

Students will gain experience in:

- student mentoring at a Primary Physical Education level (MEC P-6 PE classes)
- coaching at a primary level during interschool sports events (Lightning premiership)
- officiating at interschool sports carnivals (creating draws & ladders, umpiring, time keeping)
- how to plan and prepare a lesson plan
- planning a fundraising event
- the use of video analysis technology
- the use of excel computer software to produce ongoing competition ladders
- identifying possible career paths in the field of Sport and Recreation

TOPICS COVERED

- Peer Teaching
- Career Pathways
- Fundamental Motor Skills
- Movement analysis
- Volunteer workers and event organisation

ASSESSED TASKS

- Lesson plan reflective journal
- Completion of On-line Certificate from Australian Sports Commission
- Photo storyboard / power point presentation
- Fundamental Motor Skills Assignment
- Movement Analysis Project
- Excel football ladder report

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PATHWAYS

This subject may lead into Year 11 and 12 pathways, including VCAL Personal Development, VETiS Sport and Recreation, VCE Physical Education and VCE Health and Human Development.

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Health & Physical Education

PHYSICAL EDUCATION ELECTIVE

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Physical Education Units 1 & 2 as part of their VCE. Students participate in lifestyle activities to improve fitness, sports to develop a range of skills and acquire knowledge on various strategies that can be used in game situations.

Topics covered could include:

Training Programs, Energy Systems, Australian Physical and Sedentary Behaviour Guidelines, Biomechanics and Performance Enhancements.

LEARNING TASKS

- Laboratory classes and reports
- Practical activity classes
- Written reports, data analysis exercises and participation in, and evaluation of, practical classes, via a reflective folio/diary

KEY SKILLS DEVELOPED

- Observation and involvement in classroom activities
- Writing laboratory reports, data analysis, research skills
- Ability to participate in, and evaluate practical classes, via individual and group work
- General ICT skills and note taking

ASSESSED TASKS

- Assessed tasks are based on participation in practical and theory work
- Students need to complete skill analysis and evaluation work, as well as complete assignments and research tasks

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCAL Personal Development, VCE Physical Education and VCE Health and Human Development or VETiS Sport and Recreation

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Health & Physical Education

HEALTH EDUCATION ELECTIVE

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Health and Human Development Units 1 & 2 as part of their VCE.

LEARNING OUTCOMES

- Analyse graphs and data with reference to the health of Australians
- Measure the health status of Australians and compare it to other countries
- Outline basic nutrient functions and sources
- Analyse the possible impacts on health from respectful relationships
- Describe, define and list health terminology
- Participate in different excursions within the community to explore healthy living
- Understand how alcohol and other drugs can impact health and development

TOPICS COVERED

- Alcohol and other drugs
- Nutrition
- Positive and respectful relationships
- Dimensions of health
- Determinants of health
- Risk/protective factors

ASSESSED TASKS

- School assessed coursework will consist of written reports, tests, research projects, case studies and revision summary sheets
- Students also complete an exam at the end of the semester

PATHWAYS

Students who complete this subject will have excellent background knowledge for Units 1 & 2 Health and Human Development. This subject provides students with basic knowledge for a career in nursing or other health areas such as health promotion, social work or teaching.

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Humanities

POWER AND THE PEOPLE (HISTORY, CIVICS & CITIZENSHIP, GEOGRAPHY)

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

In Power and the People students will learn about various areas of The Humanities. They will delve into the history about the people and empires that ruled the world from Ancient times to the modern era. Some of the empires highlighted will be Persian, Roman, Mongolian, British, and American. They will also understand how these people ran their governments and ruled those under their control. On a more local level, students will develop knowledge of government roles and responsibilities in Australia. They will also focus on the different sorts of environments and biomes of the world and how humans are affecting them regarding food production and climate change.

LEARNING OUTCOMES

- Why Empires rise and fell and the legacy
- The roles, levels, and responsibilities of government
- The key environmental regions and sustainability
- Food production processes

KEY SKILLS DEVELOPED

- Comprehensive, critical, analytical, and creative thinking
- Predict changes of places over time and the possible implications
- Analyse the changing world environment
- Understanding the changing world environment

ASSESSED TASKS

- Research projects
- Posters and models
- Writing exercises
- End of semester examination

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCE Legal Studies, Geography and History and careers in environmental studies, education, public service, tourism, archaeology, journalism and research and development.

***This subject will only be offered in 2022**

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Humanities

FAITH AND FORTUNE (HISTORY, GEOGRAPHY, ECONOMICS)

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

In Faith and Fortune, a variety of The Humanities will be studied. Students will learn about the belief systems of humans and how we impact the world. Various mythologies will be focused on to understand how people make sense of the world around them, including: Greek, Norse, Dreamtime, Egyptian and Celtic. The unit will also give an overview account of the world's mainstream religions such as Buddhism, Islam, and the Judeo-Christian tradition. There will also be a focus on how humans have spread across the globe and the impact this causes as well as how certain economic systems have developed and the role they play globally and on a personal level.

LEARNING OUTCOME

- Various world views, beliefs, and systems
- Geographies of human wellbeing, change and management
- Business and the world of economic cycles
- Personal finance

KEY SKILLS DEVELOPED

- Comprehensive, critical, analytical, and creative thinking
- Predict changes of places over time and the possible implications
- Collect and record geographical data
- Analyse the changing world environment
- Understand sound financial management practices

ASSESSED TASKS

- Research projects
- Posters and models
- Writing exercises
- End of semester examination

Y PATHWAYS

This subject may lead into Year 11/12 pathways, including VCE Business Management, Accounting and Economics, Geography and History.

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***This subject will only be offered in 2021**

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Humanities

THE RISE OF THE MACHINE (HISTORY)

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This is a history based subject that covers the period of time from the Renaissance the 1500s to the Industrial Revolution in the 1800s and World War I. These were times of change brought about by developments in ideas, scientific thinking and technology through innovation and invention. This study will consider the social, political, cultural and economic impacts these eras had on the lives of people and the development of the modern world.

LEARNING OUTCOMES

- The key features and developments of the Renaissance and the Industrial revolution
- The causes of World War I

KEY SKILLS DEVELOPED

- Reading and comprehension
- Writing short and extended answers to key questions
- Analysing written and visual sources
- Researching and synthesing information from a range of materials

ASSESSED TASKS

- Classwork
- Writing exercises and essays analysing key events
- Research and oral presentations
- End of semester examination

PATHWAYS

This subject may lead into Year 11/12 pathways, including VCE History Units 1-4, and careers in tourism, research, education, journalism or archaeology.

***This subject will only be offered in 2021**

Humanities

CRIME, PUNISHMENT AND THE LAW (CIVICS AND CITIZENSHIP)

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This area of study covers the history of Common Law, the function of Victorian and Federal Parliament and their ability to make laws, issues in criminal law (homicide and other related crimes against a person), issues in civil law, the role of the police, and an investigation of Victoria's justice system.

LEARNING OUTCOMES

- Understanding Common Law and issues in civic and criminal law
- The role and function of parliament in law making

KEY SKILLS DEVELOPED

- Describe the operation and history of Common Law
- Explain the function and role of the Victorian and Commonwealth Parliament and their ability to make laws
- Distinguish between civil and criminal law
- Understand the hierarchy and operation of the Victorian Court system

ASSESSED TASKS

- PowerPoint presentations to the class
- Testing and assessment of book work
- Case studies
- Essays
- End of semester examination

PATHWAYS

This subject may lead into VCE Legal Studies. Possible career pathways include law, commerce, business, the police force, criminal justice administration and other related occupations.

Humanities

THE WORLD AT WAR (HISTORY)

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This is the study of the modern world, and Australia, from World War I to the present. World War II is covered in depth, including the significant events of the Holocaust and the atomic bombing of Hiroshima. It includes the study of the experience of Australians at war, the home front and the changing role of women. The post-war world from 1945-2001 is then studied with an overview of the Cold War period, the struggle for rights and freedoms of African-Americans and the indigenous peoples of Australia. The events of this period of time will be studied using various sources including films and how they inform us of these events.

LEARNING OUTCOMES

- The impact of World War I
- The causes, course and consequences of World War II, including the significant events of the Holocaust and the atomic bombing of Hiroshima
- Key aspects of the Cold War and the struggle for civil rights

KEY SKILLS DEVELOPED

- Reading and comprehension
- Writing short and extended answers to key questions
- Analysing written and visual sources
- Synthesising information from a range of materials

ASSESSED TASKS

- Classwork
- Analysis of primary sources on the causes of World War II
- Research and oral presentations
- End of semester examination

PATHWAYS

This subject may lead into Year 11/12 pathways including VCE History, and careers in research, education, journalism, tourism and archaeology.

***This subject will only be offered in 2022**

Languages

YEAR 9/10 INDONESIAN

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

Indonesian covers communication skills, grammar and cultural awareness of Indonesia and the Indonesian Language. Students will develop their knowledge through the study of grammar, clothing, weather, food, popular culture (music, movies and television) and traditional arts.

LEARNING OUTCOMES

- Building confidence in writing in Indonesian via a journal
- Designing and creating a t-shirt using 'Batik' wax and dye methods
- Translating of recipes and cooking classes
- Video conference session with a class in Jakarta
- Exploring and understanding culture, vocabulary development, grammar exercises and games

KEY SKILLS DEVELOPED

- Oral communication
- Writing
- Reading comprehension
- Vocabulary and grammar

These skills must be practised regularly to meet the demands of increasing language competency.

ASSESSED TASKS

- Writing journal
- Oral presentations
- Green screen weather forecast oral task
- Assorted reading
- Listening and comprehension tasks

PATHWAYS

This subject may lead into Certificate II in Applied Language and VCE Indonesian (refer to pathway on page 110-111), as well as careers in translating, teaching or international jobs.

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Languages

YEAR 10 INDONESIAN (VETiS CERTIFICATE II IN APPLIED LANGUAGES)

This is an elective subject that runs all year.

SUBJECT DESCRIPTION

Indonesian covers communication skills, grammar and cultural awareness of Indonesia and the Indonesian Language. Students will develop their knowledge through the study of personal world, traditions and cultures, travel and environment. Students who complete all Units of Competency will obtain a qualification in Indonesian (see VETiS description on page 94).

LEARNING OUTCOMES

- Writing (journal, letter and short answer responses)
- Responding to oral and visual texts, oral presentations (speeches, interviews, conversations and role play)
- Exploring and understanding culture, vocabulary development, grammar exercises and games

KEY SKILLS DEVELOPED

- Oral communication for social and workplace purposes
- Reading and writing for social and workplace purposes
- Vocabulary and grammar

These skills must be practised regularly to meet the demands of increasing language competency.

ASSESSED TASKS

- Informal interview
- Conversational lunch with Indonesian volunteers
- Email and social media communication
- Role play
- Reading workplace documents written in Indonesian
- Listening and comprehension tasks

PATHWAYS

This subject may lead into VCE Indonesian, as well as careers in translating, teaching or international jobs.

Mathematics

YEAR 9 SUPPORTING MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 9.

SUBJECT DESCRIPTION

This course is for students who are likely to undertake a VETiS and / or VCAL path in Year 11 and 12. There is an emphasis on individual progression of Mathematics skills, as well as practical applications in student projects.

TOPICS COVERED

- Number and Place value
- Real Numbers
- Money and Financial Mathematics
- Patterns and Algebra
- Linear and Non-Linear Relations
- Using Units of Measurement
- Shape
- Location and Transformation
- Geometric Reasoning
- Chance
- Data Representation and Interpretation

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- Application tasks
- An exam will be held at the end of each semester

EQUIPMENT

- Scientific calculator*
- Maths Mate homework booklet
- Digital textbook

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PATHWAYS

This subject may lead into Mathematics pathways including Year 10 Everyday Mathematics and Year 11/12 Foundation Mathematics. Career pathways include industries with an applied math focus, such as Arts & Design, Retail & Sales or Trades & Services.

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*Refer to calculator's information on page 117.

Mathematics

YEAR 9 STANDARD MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 9.

SUBJECT DESCRIPTION

This course is for students who are likely to undertake Continuing and Pre-VCE Mathematics, as well as General Mathematics and/or Mathematical Methods courses in Years 11 and 12. There is an emphasis on improving numeracy skills, as well as applying these skills to practical and theoretical scenarios.

TOPICS COVERED

- Financial mathematics
- Algebra
- Trigonometry (including Pythagoras)
- Linear relationships
- Statistics and Probability
- Measurement
- Geometry

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- An exam will be held at the end of each semester

EQUIPMENT

- Scientific calculator*
- Maths Mate homework booklet
- Digital textbook

PATHWAYS

This subject may lead into Mathematics pathways including Year 10 Continuing or Pre-VCE Mathematics and Year 11 General Mathematics and/or Mathematical Methods. Career pathways include Banking, Clerical, Sales, Science, Engineering, Mechanical and Electrical.

* Refer to calculator's information on page 117.

Mathematics

YEAR 9 EXTENDING MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 9.

SUBJECT DESCRIPTION

This course is for students who are likely to undertake Pre-VCE Mathematics, Year 11 Mathematical Methods and Specialist Mathematics. There is a strong emphasis on improving theoretical and practical knowledge and skills.

TOPICS COVERED

- Financial mathematics
- Algebra
- Trigonometry (including Pythagoras)
- Linear and non-linear relationships
- Statistics and Probability
- Measurement
- Geometry

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- Application tasks
- An exam will be held at the end of each semester

EQUIPMENT

- Scientific calculator*
- Maths Mate homework booklet
- Digital textbook

PATHWAYS

This subject may lead into Mathematics pathways including Year 10 Pre-VCE Mathematics and Year 11 Mathematical Methods and/or Specialist Mathematics. Career pathways include Engineering, Pharmacy, Medicine and Veterinary Science.

*Refer to calculator's information on page 117.

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Mathematics

YEAR 10 EVERYDAY MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 10.

SUBJECT DESCRIPTION

This course is for students who do not wish to undertake General Mathematics or Mathematical Methods courses in Year 11 and 12. There is a strong emphasis on using mathematics in practical contexts relating to everyday life, recreation, work and study. This course is useful for students choosing a VETiS and/or VCAL path.

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- Application tasks
- An exam will be held at the end of each semester

EQUIPMENT

- Scientific calculator*
- Prescribed set of workbooks

PATHWAYS

This subject may lead into Year 11/12 pathways including Foundation Mathematics and careers in a variety of trades including Mechanics, Electrical, Plumbing, Hairdressing and Hospitality.

**Refer to calculator's information on page 117*

Mathematics

YEAR 10 CONTINUING MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 10.

SUBJECT DESCRIPTION

This course is for students who are likely to undertake General Mathematics courses in Years 11 and 12. There is a strong emphasis on improving numeracy skills, as well as their applications to practical and theoretical scenarios.

TOPICS COVERED

- Linear equations and inequalities
- Linear graphs, including parallel and perpendicular lines
- Congruency and scale factors
- Surds and indices, including exponential growth and decay
- Trigonometry, including applications of the functions sine, cosine and tangent
- Quadratic equations, including expansion and factorisation
- Measurement, including perimeter, area, surface area and volume
- Probability, including conditional probability
- Univariate and bivariate statistics

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- Application tasks
- An exam will be held at the end of each semester

EQUIPMENT

- Scientific calculator*
- Maths Mate homework booklet
- Textbook

PATHWAYS

This subject may lead into Year 11/12 pathways, including General Mathematics and Mathematical Methods and careers in Banking, Clerical, Sales, as a Mechanical, and Electrical Engineering.

**Refer to calculator's information on page 117*

Mathematics

YEAR 10 PRE - VCE MATHEMATICS

It is compulsory to choose one Mathematics subject to be completed in Year 10.

SUBJECT DESCRIPTION

This course is for students who are likely to undertake General Mathematics, Mathematical Methods and/or Specialist Mathematics in Year 11 and/or 12. There is a strong emphasis on improving theoretical and practical knowledge and skills, as well as introducing students to CAS technology (in preparation for Years 11 and 12).

SUBJECT TOPICS

Semester 1— Linear equations and inequalities; linear graphs (including parallel and perpendicular lines); congruency and scale factors; surds and indices (including exponential growth and decay).

Semester 2— Trigonometry (including applications of the functions sine, cosine and tangent), quadratic equations (including expansion, factorisation and their graphs), measurement (including perimeter, area, surface area and volume), probability (including conditional probability) and univariate & bivariate statistics.

ASSESSED TASKS

- Tests
- Projects
- Homework sheets
- Group tasks
- Application tasks
- An exam will be held at the end of each semester

PREREQUISITES

- Completion of Year 9 Mathematics
- Enrolment in both Pre-VCE Mathematics and Pre-VCE Science are recommended, but not essential

EQUIPMENT

- Scientific calculator*
- Maths Mate homework booklet
- Textbook
- CAS calculator* (recommended)

PATHWAYS

This subject may lead into Year 11/12 pathways, including General Mathematics, Mathematical Methods and Specialist Mathematics and careers in Banking, Clerical, Sales, as a Mechanic and Electrician.

**Refer to calculator's information on page 117.*

Science

YEAR 9 ESSENTIAL SCIENCE

This is a compulsory subject that runs for 1 semester.

SUBJECT DESCRIPTION

This unit will continue to build on the scientific skills developed by students during Years 7 and 8. The curriculum focus is on explaining phenomena involving science and its applications. Students explore the formation of scientific ideas and how these theories relate to current contexts.

KEY KNOWLEDGE

- Scientific understanding, including models and theories, are contestable and are refined over time through a process of review by the scientific community
- Multicellular organisms rely on coordinated and interdependent internal systems to respond to changes to their environment
- An animal's response to a stimulus is coordinated by its central nervous system (brain and spinal cord); neurons transmit electrical impulses and are connected by synapses
- Ecosystems consist of communities of interdependent organisms and abiotic components of the environment; matter and energy flow through these systems
- All matter is made of atoms which are composed of protons, neutrons and electrons
- Energy flow in Earth's atmosphere can be explained by the processes of heat transfer
- Electric circuits can be designed for diverse purposes using different components
- Chemical reactions, including combustion and the reactions of acids, are important in both non-living and living systems and involve energy transfer

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw conclusions
- Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence

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ASSESSED TASKS

- Practical reports
- Poster/multimedia tasks
- Oral presentation
- Tests
- STEM investigation
- End of semester examination

PATHWAYS

This subject may lead into Year 10, 11 and 12 pathways, including Biology, Chemistry, Physics and Psychology and possible careers in Health Sciences, Agriculture, Engineering or Laboratory Work.

Science

YEAR 10 CORE SCIENCE

This is a compulsory subject that runs for 1 semester.

SUBJECT DESCRIPTION

This unit will provide students with a range of topics relevant to their life and the environment. It will promote communication skills, develop decision-making skills and curiosity around social and environmental issues. Students develop questions and hypotheses that can be investigated using a range of inquiry skills. They independently design and improve appropriate methods of investigation including the control and accurate measurement of variables and systematic collection of data.

KEY KNOWLEDGE

- Scientific understanding, including models and theories, are contestable and are refined over time through a process of review by the scientific community
- The atomic structure and properties of elements are used to organise them in the periodic table
- Chemical reactions involve rearranging atoms to form new substances; during a chemical reaction mass is not created or destroyed
- The Theory of Evolution by natural selection explains the diversity of living things and is supported by a range of scientific evidence
- Global systems, including the carbon cycle, rely on interactions involving the atmosphere, biosphere, hydrosphere and lithosphere
- Forces and motion, including the application of Newton's Laws for making predictions within practical contexts

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw conclusions
- Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence

ASSESSED TASKS

- Practical reports
- Poster/multimedia tasks
- Oral presentation
- Tests
- STEM investigation
- End of semester examination

PATHWAYS

This subject may lead into Year 11/12 pathways, including Biology, Chemistry, Physics and Psychology and possible careers in Environmental Science, Agriculture, Aged Care or a Laboratory.

Science

FORENSIC SCIENCE

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This unit is designed to give students an introduction into the real world of forensic science. Students will study the history of forensic science and different specialities within the field including career options. They will also use scientific methodologies to investigate crime scenes and examine how real forensic work compares to media portrayals on television. Concepts studied will include autopsy, fingerprinting, blood & DNA, hair & fibres, forensic chemistry, toxicology, ballistics, forensic accident and crash analysis, and forensic psychology.

KEY KNOWLEDGE

- How a forensic scientist collects evidence, preserves a crime scene and draws conclusions
- Make impression evidence of footprints and fingerprints; tyre and tool marks; teeth and bite marks
- Investigate types of human blood and blood splatter evidence; meal worn simulation for time of death
- Use trace evidence such as hair, glass shards, and fibres from fabric, bullets marks, rock identification and chemical evidence

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw conclusions
- Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence

ASSESSED TASKS

- Practical reports
- Scientific Poster
- Multimedia tasks /Oral presentation
- Tests
- STEM investigation
- End of semester examination

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PATHWAYS

This subject may lead into Year 10, 11 and 12 pathways, including Pre-VCE Science, Biology, Chemistry, Physics and Psychology and possible careers in Forensics, the Police Force, Engineering or Health Science.

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Science

HOW THINGS WORK

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

Using the modern car, we allow students to use investigations to explore many scientific concepts/phenomena through experimentation and research. We employ ideas from Chemistry, Physics, Biology, and Environmental science towards understanding how a car works.

KEY KNOWLEDGE

- Advances in scientific understanding often rely on developments in technology and technological advances that are often linked to scientific discoveries
- Chemical reactions, including combustion and the reactions of acids are important in both non-living systems such as car motors and batteries, and involve energy transfer
- Electric circuits can be designed for diverse purposes using different components; the operation of circuits can be explained by the concepts of voltage and current, and have their source with solar cells
- The explanation of the motion of objects involves the interaction of forces and the exchange of energy, which can be described and predicted using the laws of physics

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw Conclusions

ASSESSED TASKS

- Practical reports
- Scientific Poster
- Multimedia tasks /Oral presentation
- Tests
- Resources
- End of semester examination

PATHWAYS

This subject may lead into Year 10, 11 and 12 pathways, including Pre-VCE Science, Biology, and Chemistry, Physics and Psychology and possible careers in Laboratory Work, Engineering, Environmental Science or Health Sciences.

****This subject may not run in 2021 depending on student interest***

Science

HOME SCIENCE

This is an elective subject that runs for one semester.

SUBJECT DESCRIPTION

This unit is designed to allow students to investigate everyday objects/processes used in the home via experimentation and research. The theme is looking after water given it is one of our most precious resources, and includes investigating the processes at the Waste Water Treatment Plant. Other topics include an investigation into the chemistry of regular household cleaning products. Recycling and minimising the impacts upon the environment are also investigated in relation to the carbon, nitrogen and water cycle.

KEY KNOWLEDGE

- Advances in scientific understanding often rely on developments in technology and technological advances are often linked to scientific discoveries as such with many home devices
- Ecosystems consist of communities of interdependent organisms and abiotic components of the environment such as the backyard environment of our homes
- Electric circuits can be designed for diverse purposes using different components; the operation of circuits can be explained by the concepts of voltage and current as found with electrical appliances within the home
- Chemical reactions are important in both non-living and living systems and involve energy transfer, and are used in every household chemicals and in the garden

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw conclusions
- Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence

ASSESSED TASKS

- Practical reports
- Scientific Poster
- Multimedia tasks /Oral presentation
- Tests
- End of semester examination

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PATHWAYS

This subject may lead into Year 10, 11 and 12 pathways, including Pre-VCE Science, Biology and Chemistry, Physics and Psychology and possible careers in Natural Remedies, Health Sciences, Horticulture or Environmental Science.

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****This subject may not run in 2021 depending on student interest***

Science

YEAR 10 PRE-VCE SCIENCE

This is an elective subject that runs for 1 semester. This unit is recommended for students wishing to undertake Science in Year 11/12.

SUBJECT DESCRIPTION

This unit is an introduction to students wanting to undertake VCE Science subjects. Basic concepts of Biology, Chemistry, Physics and Psychology are explored.

KEY KNOWLEDGE

- Advances in scientific understanding often rely on developments in technology
- Different types of chemical reactions are used to produce a range of products and can occur at different rates; chemical reactions may be represented by balanced chemical equations
- Chemical reactions, including combustion and the reactions of acids, are important in both non-living systems and involve energy transfers
- The transmission of heritable characteristics from one generation to the next involves DNA and genes
- Energy flow in Earth's atmosphere can be explained by the processes of heat transfer
- The explanation of the motion of objects involves the interaction of forces and the exchange of energy and can be described and predicted using the laws of Physics

KEY SKILLS DEVELOPED

- Communicate scientific ideas and information for a particular purpose
- Formulate questions or hypotheses that can be investigated scientifically
- Select and use appropriate equipment to collect and record data
- Construct and use a range of representations, including graphs, keys, models and formulas, to record and summarise data
- Communicate ideas, findings and solutions to problems including identifying impacts and limitations of conclusions and using appropriate scientific language and representations
- Use scientific knowledge and findings from investigations to identify relationships, evaluate claims and draw conclusions
- Analyse patterns and trends in data, including describing relationships between variables, identifying inconsistencies in data and sources of uncertainty, and drawing conclusions that are consistent with evidence

ASSESSED TASKS

- Practical reports
- Poster / Multimedia tasks
- Oral presentation
- Tests
- STEM
- End of semester examination

PATHWAYS

This subject may lead into Year 10, 11 and 12 pathways, including Biology, and Chemistry, Physics and Psychology and possible Careers in Tertiary Science, Agriculture Science, Nursing Medicine, Radiology, Dentistry or Veterinary Science.

Technology

FOOD AND BEVERAGE A & B

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This unit will build on the practical skills and key knowledge students acquired in Years 7, 8 and 9 Food Technology subjects. It follows on from their experience in the past, using the design process to produce design folio work. Students will develop their practical skills further with more complex recipes.

LEARNING OUTCOMES

- To have an understanding of the requirements of health and safety when preparing and storing food
- To learn a range of skills involved in preparing dishes from all sections of a menu, including entrees, main courses and desserts
- To use research skills to plan and prepare student-selected dishes for the design folio project
- To further develop the student's ability to evaluate their food products

KEY SKILLS DEVELOPED

- Ability to follow hygiene and safety rules in the kitchen
- Ability to independently follow recipes to prepare a wide range of products
- Teamwork, to work alongside others in a busy kitchen environment
- Apply the design process to practical tasks

ASSESSED TASKS

- Assessment is based on completion of practical work and assignments
- Students will need to investigate and evaluate certain aspects of their production work
- End of semester exam

PATHWAYS

This subject may lead into Year 11 pathways, including VETiS Hospitality Units 1 & 2, Food Studies Units 1 & 2, VCE Product Design & Technology or possible careers in the food and hospitality industry.

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Technology

PRE-VCE FOOD STUDIES

This is an elective subject that runs for one semester for Year 10 students. This unit is recommended for students wishing to undertake VCE Food Studies in Year 11/12. It will be a combination of theory and practical sessions.

SUBJECT DESCRIPTION

The aim of this unit is to encourage students to become informed food consumers. This unit will build on the practical skills and key knowledge students acquired in Years 7, 8 and 9/10 Food Technology subjects. Students will explore the current issues in food today including sustainability, food trends and healthy eating. Students will develop their practical skills further with more complex recipes. Practical sessions will include a variety of the following practical activities - food preparation, experiments, sensory analysis and product analysis.

KEY KNOWLEDGE

- To learn how to apply the Australian Dietary Guidelines to food preparation and support healthy eating patterns
- To have an understanding of the requirements of health and safety when preparing and storing food
- To learn about the methods of cooking and chemical changes that occur in food when food is cooked
- To learn about cultural influences on Australia's cuisine
- To investigate food trends
- Sustainability issues in food production

KEY SKILLS DEVELOPED

- Ability to follow hygiene and safety rules in the kitchen
- Ability to make healthy food choices
- Ability to explain the cooking methods used when cooking food
- Develop an understanding of the changes that occur when food is cooked
- Develop skills to analyse food in the media
- Develop skills to record information discovered during practical classes
- Ability to independently follow recipes to prepare a wide range of products
- Use the design process to create healthy meal solutions

ASSESSED TASKS

- Assessment is based on completion of practical work, practical records and assignments
- Students will need to investigate and evaluate certain aspects of their production work
- End of semester exam

PATHWAYS

This subject may lead into Year 11 pathways, including Food Studies Units 1 & 2 and Food Studies 3 & 4. It would also give background knowledge and skills to help in VETiS Hospitality Units 1 & 2.

Technology

WOODWORK A & B

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This course is designed to suit a student that is interested in pursuing a career in the building industry. The course introduces timber materials, tools, procedures and safety aspects of the building and furnishing industries. It is also designed for the students that enjoy making products using their hand skills.

LEARNING OUTCOMES

- This unit involves the theory and practical components of carpentry, joinery and cabinet making
- Areas covered include workshop safety, tool and equipment usage and materials
- The theory component aims to reinforce skills and enhance knowledge that will be used in the practical areas of study
- Satisfactory completion requires all tasks to be completed including investigating, generating, producing, evaluating, planning and managing
- Students acquire further knowledge through audio and computer programs
- Students produce a timber product (radiata pine) on completion of the semester

KEY SKILLS DEVELOPED

- Basic hand skills using hand tools and limited power tools
- Measurements and mathematical skills, reading instructional skills and designing skills

ASSESSED TASKS

- Completion of set practical tasks
- Presentation of completed worksheets
- Finished product
- End of semester exam

PATHWAYS

This subject may lead into Year 10/11/12 pathways, including VETiS Building and Construction, and possible careers in building and construction, as a carpenter or cabinet maker.

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Technology

DIGITAL TECHNOLOGIES

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

Digital Technologies consists of the use of a wide variety of software tools to enable entry into VCE IT, Software Development or support for other Later Years courses, and basic IT skills. It focuses on the development of software products taking into account the needs of the user. Data security and protection of users in today's online social communities are important concepts that are taught throughout the course.

LEARNING OUTCOMES

- Electronic folio of work
- Completion of an on-time assessment

KEY SKILLS DEVELOPED

- Hardware/software
- Spreadsheets
- Databases
- Programming software
- Web design
- Networking
- Data security and issues
- Online communities

ASSESSED TASKS

- Competency-based tutorials and assessed task, based on the software listed above, which consolidates key knowledge and skills
- Class tests
- End of semester examination

PATHWAYS

This subject may lead into year 11/12 pathways, including Information Technology units 1 and 2, or possible careers in networking, web design, and programming or data development.

Technology

AUTOMOTIVE

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

This subject is aimed at students who are focussed on obtaining an apprenticeship or traineeship in the automotive industry, have mechanical aptitude, are interested in the theory of mechanical and electrical components, and enjoy an individualised learning environment. This program provides students with a foundational base of skills necessary to maintain and service a wide range of vehicles and components, and provides a head start in gaining automotive apprenticeships.

LEARNING OUTCOMES

- Practical servicing of small engines and vehicle components
- Occupational Health and Safety (OH&S) modules
- Completion of an on-time assessment

KEY SKILLS DEVELOPED

- Developing general OH&S knowledge and skills
- Specific automotive workshop safety around the use of specialised tools and equipment
- Use of a vast range of Automotive tools and equipment and Learn about the Automotive industry
- Develop knowledge of basic mechanical systems such as gearing, levers, pulleys, construction, materials and vehicle systems and components
- Preparation of skills required for the VETiS Certificate II in Automotive Vocational Preparation pathway and pre-apprenticeship training

ASSESSED TASKS

- Practical work
- Theory work
- End of semester examination

Y PATHWAYS

This subject may lead into year 11/12 pathways, including VETiS Certificate II in Automotive Vocational Preparation or an apprenticeship.

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Technology

ENGINEERING

This is an elective subject that runs for 1 semester.

SUBJECT DESCRIPTION

Engineering provides students with practical skills and theoretical knowledge to undertake an apprenticeship in the engineering trade. Students study basic machine processing, fabrication techniques, Occupational Health and Safety using power tools and using computers for engineering-related work activities.

LEARNING OUTCOMES

- Develop general OH&S knowledge and skills
- Practical metalwork component
- Theory outcomes

KEY SKILLS DEVELOPED

- Students develop a foundation understanding and gaining skills in the engineering industry
- Specific engineering workshop safety around specialised tools and equipment
- They use a vast range of tools and equipment
- Develop knowledge of metalwork, bending, forming and welding
- Learn about the engineering industry
- Preparation of skills required for the VETiS Engineering pathway

ASSESSED TASKS

- Completion of set practical tasks/finished products
- Presentation of completed worksheets
- End of semester exam

PATHWAYS

This subject may lead into careers in the engineering field.

Year 10 VCAL

Students in Year 10 will have the opportunity to begin a Foundation VCAL Certificate, undertaking units in Work Related Skills. The program will also include English OR Literacy, Everyday Mathematics, a VETiS subject and an elective subject.

WORK RELATED SKILLS

This subject consists of two units and runs all year.

SUBJECT DESCRIPTION

The purpose of Work Related Skills is to develop employability skills, knowledge and attitudes valued within community and work environments, as a preparation for employment. The development of these skills provides learners with the capacity to consider and choose from a range of pathways.

The work related skills units are designed to;

- Research OH&S responsibilities of personnel in a work environment
- Identify and apply OH&S procedures and conduct risk assessments
- Research and analyse workplace conditions and employment opportunities
- Preparing an analysing employment applications
- Identifying workplace issues and demonstrating problem solving skills
- Working within a team to complete work related projects
- Analyse and describe employability skills

KEY SKILLS DEVELOPED

Work Related Skills is delivered at three levels:

- Foundation
- Intermediate
- Senior

As students' progress through the three levels of VCAL they are required to work with increasing levels of independence.

LEARNING OUTCOMES

VCAL students complete innovative hands-on learning projects and research a variety of different workplaces related to the domains listed above, which connect with their needs, interests and career focus.

ASSESSED TASKS

- An A3 portfolio of evidence containing the student's own work must be submitted. It should demonstrate successful completion of the learning outcomes
- This portfolio of evidence can include teacher observation, logbooks, student self-assessment video/radio broadcasts, reflective journals, action plans/timetables, oral presentations, photographs of project, PowerPoint presentations, written material, and newspaper articles of the student's achievement
- Active participation in all set tasks is a strict requirement

VCE

Subject overview

Compulsory

English (all year)

VCE Electives

Drama

Media

Studio Arts

Visual Communication & Design

Physical Education

Health and Human Development

Indonesian

Business Management

Legal Studies

Twentieth Century History

Ancient History

Foundation Mathematics

General Mathematics Further

Mathematical Methods

Further Mathematics

Specialist Mathematics

Biology

Chemistry

Physics

Psychology

Food Studies

Systems Engineering

Scored VCE VETiS subjects*

SIT20416 Certificate II in Hospitality (Kitchen Operations)

SIS30115 Certificate III in Sport and Recreation

** If a student wishes to undertake a VETiS on a VCE pathway, it is recommended that they choose one only.*

Please note that some subjects may not run in 2021 subject to student selection or staff availability.

Arts

DRAMA - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2)

SUBJECT DESCRIPTION

Unit 1: Introducing performance styles

Students study 3 or more performance styles from a range of social, historical and cultural contexts. They examine drama traditions or ritual and storytelling to devise performances that go beyond re-creation and/or representation of real life as it is lived.

Unit 2: Australian Identity

Students study aspects of Australian identity evident in contemporary drama practice. This may also involve exploring the work of selected drama practitioners and associated performance styles.

LEARNING OUTCOMES

- Develop, through practice and analysis, an understanding of drama as a way of communicating stories, ideas and meaning
- Examine contemporary drama practice, the work of selected practitioners and theorists and associated performance styles
- Devise, perform and evaluate solo and ensemble drama work
- Document the playmaking process for the creative development of new work
- Manipulate dramatic elements and production areas in devising and performing drama

KEY SKILLS DEVELOPED

- Confidence and willingness to participate
- Document the playmaking process
- Analyses own and professional performances
- Research theatre styles
- Focus on 'doing' rather than 'telling'
- Develop and refine expressive and performance skills

ASSESSED TASKS

- Devise and document solo and/or ensemble drama works based on experiences and/or stories. In Unit 2, this reflects aspects of Australian identity and contemporary drama practice
- Perform devised drama works either solo or ensemble to an audience
- Analyse the development and the performance to an audience of their devised work
- Analyse the presentation of ideas, stories and characters in a drama performance by professional Australian drama practitioners.

V PATHWAYS

C Completion of these units may lead to a career as an actor, director, theatre maker, lighting, set or sound designer/
E operator, stage manager, producer, production manager, arts worker or educator.

Arts

DRAMA - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2). Please note that Unit 1&2 Drama will be offered in 2022.

SUBJECT DESCRIPTION

In Unit 3 students explore the work of drama practitioners and draw on contemporary practice as they devise a non-naturalistic drama performance, and also analyse and evaluate a professional non-naturalistic drama performance. In Unit 4 students will develop an externally assessed solo performance based on a given stimulus.

LEARNING OUTCOMES

- Develop and present characters within a devised ensemble performance that goes beyond a representation of real life as it is lived
- Using appropriate drama terminology, analyse their own ensemble performance and evaluate a professional drama performance
- Explore and develop skills in playmaking techniques in the development of a short solo performance
- Use appropriate drama terminology to analyse and evaluate the processes used in the creation, development and presentation of a solo performance devised in response to a prescribed structure

KEY SKILLS DEVELOPED

- Independent study skills and self-motivation
- Critical self-review of the playmaking process
- Sophisticated expressive and performance skills
- Creative and divergent thinking in response to stimuli

ASSESSED TASKS

- Ensemble performance including the documentation of the playmaking process, and a review of the ensemble
- Analysis of a professional performance from the VCAA approved play list
- Mini-solo Task
- Seven-minute solo performance devised from provided stimulus
- Evaluation of solo performance

PATHWAYS

Completion of these units may lead to a career as an actor, director, theatre maker, lighting, set or sound designer/operator, stage manager, producer, production manager, arts worker or educator.

Arts

MEDIA - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

VCE Media provides students with the opportunity to analyse media concepts, forms and products in an informed and critical way. Students consider narratives, technologies and processes from various perspectives including an analysis of structure and features. They examine debates about the media's role in contributing to and influencing society. Students integrate these aspects of the study through the individual design and production of their media representations, narratives and products.

LEARNING OUTCOMES

- Study a variety of texts, analysing them using media terminology
- Use a range of technical equipment and media software to create their own media products

KEY SKILLS DEVELOPED

- Critical analysis of media texts
- Technical media production skills
- Writing using media terminology
- Creative planning skills

ASSESSED TASKS

- Written tasks
- Production design plan folio
- Individual Media technical tasks
- End of semester written examination

PATHWAYS

Successful completion of this subject may lead to a career in journalism, television, film and radio industries or photography.

Arts

MEDIA –UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

VCE Media provides students with the opportunity to analyse media concepts, forms and products in an informed and critical way. Students consider narratives, technologies and processes from various perspectives including an analysis of structure and features. They examine debates about the media's role in contributing to and influencing society. Students integrate these aspects of the study through the individual design and production of their media representations, narratives and products.

LEARNING OUTCOMES

- Study a variety of texts, analysing them using media terminology
- Use a variety of technical equipment and media software to create their own media products

KEY SKILLS DEVELOPED

- Critical analysis of media texts
- Technical media production skills
- Writing using media terminology
- Creative planning skills

ASSESSED TASKS

- Written tasks
- A production design plan folio
- Individually produced media production
- End of year written examination

PATHWAYS

Successful completion of this subject may lead to a career in journalism, television, film and radio industries or photography.

Arts

STUDIO ARTS - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Studio Arts is about the development of specialist skills in the production of artworks. Students explore various materials and techniques in a folio. They will also write about how artists interpret art ideas and use materials and techniques.

LEARNING OUTCOMES

- Development of a folio/visual diary
- Exploration of a range of materials, including painting, drawing, printmaking, etc
- Response writing and annotation
- Idea generation
- Exploration of techniques and materials
- Research and analysis of artworks
- Creative thinking

KEY SKILLS DEVELOPED

- Students will gain an understanding of using the studio process and application of practical skills

ASSESSED TASKS

- A range of practical tasks
- Folio development
- Various written tasks on artists studied and written SAC

PREREQUISITES

Successful completion of Year 10 Art and/or Visual Communication and Design are suggested, but not compulsory.

PATHWAYS

Successful completion of this subject may lead to a career as an artist, set designer, animator, visual merchandiser, printing machinist, interior decorator, multimedia developer or in advertising.

Arts

STUDIO ARTS - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Students focus on the implementation of the studio process to produce artworks. Studio Art students select an art form and theme to explore throughout Units 3 & 4. They develop potential directions to explore which will form the basis of finished artworks completed in Unit 4.

LEARNING OUTCOMES

- Reflection and documentation of explorations, in the form of written annotations
- Following the studio process

KEY SKILLS DEVELOPED

- Practical skills in the chosen medium
- Analytical skills
- Terminology knowledge
- Communication of ideas
- Understanding of aesthetic qualities

ASSESSED TASKS

- Studio process folio SAT
- Various written tasks and SAC
- Folio of finished artwork
- End of year written examination

PREREQUISITES

- Successful completion of Studio Arts Units 1 and 2

PATHWAYS

Successful completion of this subject may lead to a career as an artist, set designer, animator, visual merchandiser, printing machinist, interior decorator, multimedia developer or in advertising.

Arts

VISUAL COMMUNICATION & DESIGN - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Visual communication study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Designers create and communicate through visual means to shape everyday life for individual communities and societies. It relies on drawing as the primary component to support conception and visualisation of ideas.

LEARNING OUTCOMES

- Design process development through folio work
- Development of different media materials and production, and drawing techniques
- Experimentation of elements and principles through the use of a brief
- Technical drawing conventions explored and represented throughout a series of worksheets, including observational, visualisation and presentational drawing
- Research of design and designers throughout history and the effects era, different cultures and interests and political campaigns

KEY SKILLS DEVELOPED

- Written and analytical skills
- Research skills
- Material and technique exploration
- Technical drawing and Australian standards knowledge
- Design process knowledge and technical language

ASSESSED TASKS

- Folio tasks and outcomes
- Technical drawing standards
- Written research and comparison work
- End of subject examination

PATHWAYS

This subject may lead into careers in photography or design.

Arts

VISUAL COMMUNICATION & DESIGN - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Visual communication study examines the way visual language can be used to convey ideas, information and messages in the fields of communication, environmental and industrial design. Designers create and communicate through visual means to shape everyday life for individuals, communities and societies. It relies on drawing as the primary component to support conceptualisation and visualisation ideas.

LEARNING OUTCOMES

- Analysing practice in context
- Developing a brief for a portfolio
- Folio design process
- Final design presentation and design pitch

KEY SKILLS DEVELOPED

- Written and analytical skills
- Research skills
- Client brief knowledge
- Design process knowledge
- Technical drawing techniques and Australian drawing conventions
- Medium materials and technique experimentation

ASSESSED TASKS

- Written analytical report and written response about professional practice
- Design folio and annotation
- Written client brief
- Final design products produced
- Client-pitch presented
- End of year examination

PATHWAYS

This subject may lead into careers in photography or design.

English

ENGLISH - UNITS 1&2

It is compulsory to choose English to be completed in Year 11. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Students will continue to develop their understanding of writing, reading, listening and speaking English.

LEARNING OUTCOMES

- Study and analyse two books and 1 film
- Analyse how language and argument is used to persuade the reader/listener
- Compare the way two texts present ideas, issues and themes

KEY SKILLS DEVELOPED

- Identify and discuss structure, features and conventions used by the authors of narrative texts to construct meaning, in relation to the development of character, ideas and themes
- Discuss different ways of interpreting texts, as well as the strategies used by readers to construct meanings
- Construct both analytical and creative responses to texts
- Use appropriate strategies to review and edit responses
- Use the conventions of spelling, punctuation and syntax of standard Australian English

ASSESSED TASKS

- Analytical response to a text
- Creative response to a text
- Essay analysing persuasive language and agreement to persuade
- Oral presentation persuading the audience to the writer's point of view
- End of semester examination

PATHWAYS

Successful completion of this subject may lead to possible careers in journalism, media, as an English teacher, Librarian or a career as a professional writer or editor.

English

ENGLISH - UNITS 3&4

It is compulsory to choose one English be completed in Year 12. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Students will continue to develop their understanding of writing, reading, listening and speaking English.

LEARNING OUTCOMES

- Respond to texts analytically and creatively
- Compare use of argument and language in different texts
- Compare the way two texts present ideas issues and themes

KEY SKILLS DEVELOPED

- Critically analyse texts and the ways in which authors construct meaning
- Analyse the social, historical and or cultural values embodied in texts
- Discuss and compare possible interpretations of texts, using evidence from the text
- Apply oral language conventions in a chosen oral text type
- Use the conventions of spelling, punctuation and syntax of standard Australian English

ASSESSED TASKS

- Analytical and creative response to a text
- Essay comparing the use of argument and language in texts, which present differing views on an issue
- Detailed comparison of how two texts present ideas, issues and themes
- Oral presentation persuading the audience to the writer's point of view
- End of year examination

PREREQUISITES

Satisfactory outcomes in Year 11 English Units 1 or 2 or Year 11 Literature Units 1 or 2.

PATHWAYS

Successful completion of this subject may lead to possible careers in journalism, media, as an English teacher, Librarian or a career as a professional writer or editor.

Health & Physical Education

HEALTH AND HUMAN DEVELOPMENT - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Health and Human Development Units 3&4.

LEARNING OUTCOMES

- Explain multiple dimensions of health and wellbeing
- Explain indicators used to measure health status
- Analyse factors that contribute to variations in the health status of youth
- Apply nutrition knowledge and tools to the selection of foods
- Interpret data to identify key areas for improving youth health and wellbeing
- Explain development changes in the transition from youth to adulthood
- Analyse factors that contribute to healthy development during prenatal and early childhood stages of the lifespan
- Describe how to access Australia's health system
- Analyse a range of issues associated with the use of new and emerging health procedures and technologies

TOPICS COVERED

- Dimensions of health and wellbeing
- Aboriginal and Torres Strait Islander perspectives on health and wellbeing
- Sociocultural factors that contribute to variations in health behaviours such as; housing, employment, income and family
- Food selection models including the Healthy Eating Pyramid and the Australian Guide to Healthy Eating
- Health issues facing Australia's youth
- Healthy and respectful relationships and the impact on health and wellbeing
- The role of parents, carers and the family environment in achieving optimal development
- Key aspects of Australia's health care system; Medicare, Private Health Insurance and Pharmaceutical Benefits Scheme
- Opportunities and challenges presented by digital media

ASSESSED TASKS

- School assessed coursework will consist of written reports, tests, research projects, audio or visual presentations, case studies and revision summary sheets
- At the end of each semester there is an examination involving short answer responses, extended answer responses and data analysis questions

PREREQUISITES

No prerequisites required for this unit, however completion of the Year 9/10 Health Elective is of benefit.

V PATHWAYS

C This subject will provide students with an excellent background for a career in nursing or other health areas
E dietician, occupational therapy, speech therapy, health promotion, social welfare, youth work, education kindergarten and early childhood development, childcare and hospitality.

Health & Physical Education

HEALTH AND HUMAN DEVELOPMENT UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

This course will provide students with an excellent background for a career in nursing or other health, kindergarten and early childhood development, childcare.

LEARNING OUTCOMES

- Explain the complex, dynamic and global nature of health and wellbeing
- Interpret and apply Australia's health status data and variations in population groups
- Explain changes to public health approaches
- Analyse improvements in population health over time and evaluate health promotion strategies
- Analyse similarities and differences in health status and burden of disease globally
- Analyse relationships between the SDGs and their role in health promotion
- Evaluate the effectiveness of global aid programs

TOPICS COVERED

- Concepts of health and wellbeing
- Prerequisites of health as determined by WHO
- Indicators used to measure and understand health status
- Health of Australians – including analysis of mortality, morbidity and burden of disease data
- Models of health including; Biomedical, Social Model of Health and Ottawa Charter for Health Promotion
- Australia's health care system including; Medicare, Pharmaceutical Benefits Scheme and Private Health Insurance
- Health promotion strategies
- Implications of global trends on health and wellbeing
- Sustainable Development Goals
- WHO priorities and objectives
- Australian and international aid agencies

ASSESSED TASKS

- School assessed coursework will consist of written reports, tests, research projects, case studies and revision summary sheets
- Students will also complete an end of year examination

PREREQUISITES

No prerequisites required for this unit, however completion of Unit 1 and 2 Health and Human Development is of benefit.

PATHWAYS

This subject will provide students with an excellent background for a career in nursing or other health areas dietician, occupational therapy, speech therapy, health promotion, social welfare, youth work, education kindergarten and early childhood development, childcare and hospitality.

Health & Physical Education

PHYSICAL EDUCATION – UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2)

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Physical Education Units 3&4.

LEARNING OUTCOMES

- Collect and analyse information from, and participate in, a variety of practical activities to explain how the musculoskeletal system functions and its limiting conditions
- Evaluate the ethical and performance implications of the use of practices and substances that enhance human movement
- Collect and analyse information from, and participate in, a variety of practical activities to explain how the cardiovascular and respiratory systems function and the limiting conditions of each system
- Discuss the ethical and performance implications of the use of practices and substances to enhance the performance of these two systems
- Collect and analyse data related to individual and population levels of participation in physical activity and sedentary behaviour to create, undertake and evaluate an activity plan that meets the physical activity and sedentary behaviour guidelines for an individual or a specific group
- Apply a social-ecological framework to research, analyse and evaluate a contemporary issue associated with Participation in physical activity and/or sport in a local, national or global setting

TOPICS COVERED

- Concepts of physical activity, sport and exercise
- Structure and function of the skeletal and muscular system
- Sports injuries
- Performance enhancing substances and methods
- Structure and function of the cardiovascular and respiratory systems
- Benefits and potential harms of substances and methods on the cardiorespiratory system

ASSESSED TASKS

- School assessed coursework will consist of written reports, written plans, reflective portfolios, multimedia presentations, oral presentations, case studies, practical laboratory reports, summary notes and structured questions
- At the end of each semester there are two examinations involving multiple choice questions, short answer questions and labelling of diagrams

PREREQUISITES

No prerequisites required but completion of Physical Education Elective in Year 10 is of benefit.

V PATHWAYS

C Completion of this subject may lead to careers in coaching, teaching, health, fitness and recreation instructors, sports management, physiotherapy, dietician and police officer.

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Health & Physical Education

PHYSICAL EDUCATION – UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who may wish to follow in a sports pathway.

LEARNING OUTCOMES

- Collect and analyse information from, and participate in, a variety of physical activities to develop and refine movements skills from a coaching perspective, through the application of biomechanical and skill acquisition principles
- Collect data in practical activities to analyse how the major body and energy systems work together to enable movements to occur, and explain the factors causing fatigue and suitable recovery strategies
- Analyse data from an activity analysis and fitness tests to determine and assess the fitness components and energy system requirements
- Participate in a variety of training methods and design and evaluate training programs to enhance specific fitness components

TOPICS COVERED

- Movement skills and effective methods used to improve these skills
- Investigate biomechanical principles to analyse movement skills
- Concepts of the body producing energy
- Causes of fatigue and recovery strategies
- Acute responses to exercise
- Fitness components and training methods
- Performance enhancement through diet and supplements

PREREQUISITES

No prerequisites required but completion of Unit 1 and 2 of Physical Education is of benefit.

PATHWAYS

Completion of this subject may lead to careers in coaching, teaching, health, fitness and recreation instructors, sports management, physiotherapy, dietician and police officer.

Humanities

TWENTIETH CENTURY HISTORY - UNIT 1: 1918-1939

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

In this unit we explore the nature of political, social and cultural change in the period between the world wars. The period after World War One was characterised by significant social and cultural change in the contrasting decades of the 1920s and 1930s, as well as the development of the ideologies of fascism and communism. The focus of these changes will centre on the study of Germany and Russia.

LEARNING OUTCOMES

- Explain the consequences of the peace treaties which ended World War One
- Understand the impact of ideologies on the nations and the events that led to World War Two
- Explain patterns of social life and cultural change in Germany and Russia and analyse the factors which influenced these changes to social life and culture

KEY SKILLS DEVELOPED

- Compare historical interpretations of the causes of World War Two
- Analyse perspectives reflected in primary sources
- Compare attitudes, beliefs and values of ideologies of the period

TWENTIETH CENTURY HISTORY - UNIT 2: 1945-2000

This unit explores 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, and the competing ideologies of capitalism (democracy and communism). Old conflicts also continued and terrorism became increasingly global. It also explores the rise of social movements that challenged existing values and traditions, such as the civil rights movement, feminism and environmental movements.

LEARNING OUTCOMES

- Explain the ideological divisions in the post-war period and analyse the nature, development and impact of the Cold War on nations and people, in relation to one or more particular conflicts in the period
- Explain the causes and nature of challenge and change in relation to two selected contexts in the second half of the twentieth century and analyse the consequences for nations and people

KEY SKILLS

- Use questions to inquire into the causes of the Cold War
- Explain the beliefs and values reflected in ideologies of the period
- Construct arguments about the nature of social and cultural movements

V PATHWAYS

C History units may lead to careers in research, education, journalism, archaeology, travel or as a Librarian.

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Humanities

ANCIENT HISTORY - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Greece and Rome were major civilisations of the ancient Mediterranean. They have bestowed a powerful legacy on the contemporary world. Students explore the structures of one of these societies and a period of crisis in its history. Life in these ancient societies was shaped by the complex interplay of social, political and economic factors. Trade, warfare and the exchange of ideas between societies also influenced the way people lived. These units highlight the importance of primary sources to historical inquiry about ancient civilisation. The course involves the study of Rome and Greece. Students are expected to demonstrate a progression from Unit 3 to Unit 4 in historical understanding and skills.

LEARNING OUTCOMES

- Explain and analyse the social, political and economic features of an ancient society
- Evaluate the historical significance of a crisis in an ancient society and assess the role of key individuals involved in that turning point

KEY SKILLS DEVELOPED

- Ask questions about a crisis and key individuals to inform historical inquiry
- Analyse the causes of a crisis, and consequences for an ancient society
- Analyse continuity and change relating to a crisis, in an ancient society
- Analyse the beliefs and values of people from the period
- Evaluate the perspectives of people from the ancient past on a crisis and on the key individuals
- Evaluate the perspectives of people from the ancient past on a crisis and on the key individuals
- Construct arguments about the historical significance of a crisis and key individuals using primary sources and Historical interpretations as evidence

ASSESSED TASKS

- Analysis of primary sources
- Essay
- Historical inquiry
- Analysis of historians' interpretations
- End of year examination

PATHWAYS

History units may lead to careers in research, education, journalism, archaeology, travel or as a Librarian.

Humanities

LEGAL STUDIES - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Students who choose Legal studies will have the opportunity to learn who makes the laws under which we all must live, and look at resolving civil and criminal disputes through courts, and other bodies. It focuses on laws that affect us in everyday life.

UNIT 1

This unit provides a study of criminal law and how it affects us. Students study types of crime, the role of the police, punishment and how the legal system works. Students will also look at the process used by Parliament to make laws.

LEARNING OUTCOMES

- Explain the need for effective laws and describe the main sources and types of law in society
- Explain the key principles and types of criminal law, apply the key principles to relevant cases, and discuss the impact of criminal activity on the individual and society
- Describe the processes for the resolution of criminal cases, and discuss the capacity of these processes to achieve justice

KEY SKILLS DEVELOPED

- Students should have an interest in and awareness of current legal issues and a willingness to discuss issues during classroom discussion
- Students will learn to analyse and apply the law to legal cases. Essay writing skills will also be developed

ASSESSED TASKS

- Tests, essays
- Case studies
- End of semester written examination

UNIT 2

This unit focuses on the effective resolution of disputes. Students study the area of civil law and alternative ways of settling disputes. Students will complete a detailed investigation of an area of civil law, which may include family law, workplace laws or tenancy law. Students will also look at legal case studies to examine rights and the role people can play in our legal system.

LEARNING OUTCOMES

- Explain the principles of civil law, law-making by courts, and elements of torts, and apply these to relevant cases
- Explain and evaluate the processes for the resolution of civil disputes
- Explain one or more area/s of civil law, and discuss the legal system's capacity to respond to issues and disputes related to the selected area/s of law

KEY SKILLS DEVELOPED

- Students should have an interest in and awareness of current legal issues and a willingness to discuss issues during classroom discussion
- Students will learn to analyse and apply the law to legal cases, research topics and write essays

ASSESSED TASKS

- Case studies
- Assignments
- End of semester written examination

PATHWAYS

Completion of this subject may lead to a career in Law, becoming a Paralegal or Court Registrar.

Humanities

LEGAL STUDIES — UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

UNIT 3

This unit enables students to develop an understanding of the institutions that determine laws and the processes by which laws are made. It considers reasons why laws are necessary and the impact of the Commonwealth Constitution on the operation of the legal system. Students undertake an evaluation of the strengths and weaknesses of the law making bodies and the processes used to influence change and reform.

LEARNING OUTCOMES

- Explain the structure and role of parliament, including its processes and effectiveness as a law-making body, describe why legal change is needed, and the means by which such change can be influenced
- Explain the role of the Commonwealth Constitution in defining law-making powers within a federal structure, analyse the means by which law-making powers may change, and evaluate the effectiveness of the Commonwealth Constitution in protecting human rights
- Describe the role and operation of courts in law-making, evaluate their effectiveness as law-making bodies and discuss their relationship with parliament

KEY SKILLS DEVELOPED

- During the year, students will develop an awareness of current legal issues, and enhance their ability to write extended response questions

ASSESSED TASKS

- Tests
- Case study and extended response questions

UNIT 4

This unit explores courts, tribunals and alternative avenues of dispute resolution, to compare and evaluate the operation of various dispute resolution methods. Students develop an understanding of criminal and civil pre-trial and trial processes. The operation of the jury system in criminal and civil trials will be examined and students will review the operation of the adversary system, giving consideration to its strengths and weaknesses.

LEARNING OUTCOMES

- Evaluate the effectiveness of institutions and methods for the determination of criminal cases and the resolution of civil disputes
- Explain the processes and procedures for the resolution of criminal cases and civil disputes, evaluate their operation and application, and evaluate the effectiveness of the legal system

KEY SKILLS DEVELOPED

- Students will continue to develop essay writing skills while enhancing examination skills

ASSESSED TASKS

- Short answer tests
- Extended response questions and case studies
- An end of year written examination

PATHWAYS

Possible career paths include law, commerce or business at university. New University courses such as dispute resolution and criminal justice administration provide many opportunities for students who wish to further their studies in this area. Some students choose to enter the police force, or work for a legal firm.

Humanities

BUSINESS MANAGEMENT - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Students who wish to learn about and have contact with the world of business, and some local businesses, should consider Business Management. Unit 1 & 2 specifically deal with the management of small business. Business Management also provides the opportunity as an introduction to Units 3 & 4, assisting with developing skills and concepts associated with the course.

UNIT 1

Provides students with the opportunity to explore the operations of a small business and its likelihood of success. This unit looks at planning a small business.

LEARNING OUTCOMES

- Identify business opportunities
- Define, describe and apply relevant business management terms and concepts
- Apply business management knowledge to both practical and simulated situations

KEY SKILLS DEVELOPED

- Data interpretation, creativity and imagination with developing their own business
- Report writing and case study investigations

ASSESSED TASKS

- Topic tests, reports and projects
- End of semester written examination

UNIT 2

This unit looks at how effective communication and marketing assists in the achievement of business objectives. Key topics include effective communication in small business, marketing your small business and public relations.

LEARNING OUTCOMES

- Examine the legal requirements that must be satisfied to establish a business
- Investigate and apply marketing tactics
- Analysis of various management practices

KEY SKILLS DEVELOPED

- Awareness of current business issues, with an ability to draw on the individual experience
- Application and analysis of business literature, information and case studies

ASSESSED TASKS

- Texts, research tasks, reports
- End of semester written examination

V PREREQUISITES

It is recommended, but not essential, to have a basic knowledge of spreadsheets and Year 10 Continuing Mathematics.

C PATHWAYS

Completion of this subject may lead to a career in business, banking or administration.

Humanities

BUSINESS MANAGEMENT - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

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

UNIT 3

This unit focuses on large organisations and how they are managed. Students study what constitutes a large scale organisation, the styles and skills required to manage the operations management of such organisations.

LEARNING OUTCOMES

- Explore key processes and issues concerned with managing a business efficiently and effectively
- Discuss and analyse corporate culture, management styles, management skills and the relationship between each of these

KEY SKILLS DEVELOPED

- Awareness of current business issues
- Ability to draw on individual experience
- Application and analysis of business literature, information and case studies

ASSESSED TASKS

- Topic tests
- Learning activities and case studies

UNIT 4

This unit focuses on the management of people in large organisations and the impact of change. Students study human resource management, management of change (including technology globalisation), business ethics and social responsibility.

LEARNING OUTCOMES

- Investigation of potential conflicts between various stakeholders of the business
- Examine theories of motivation

KEY SKILLS DEVELOPED

- Awareness of current business issues, ability to draw on individual experience, application and analysis of business literature, information and case studies

ASSESSED TASKS

- Topic tests using case study material
- End of year examination

PATHWAYS

Completion of this subject may lead to a career in business, banking or administration.

Languages

INDONESIAN - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Studying Indonesian develops students' abilities to understand and use the language of one of Australia's closest neighbours. Links between Australia and Indonesia have been strengthened in recent decades, particularly in areas such as business, tourism, defence and education.

LEARNING OUTCOMES

- Writing (imaginative, informative, persuasive or evaluative)
- Responding to oral and visual texts
- Oral presentations (role play, interview, rehearsed and natural conversation)
- Exploring and understanding culture
- Vocabulary development
- Grammar exercises and homework practice tasks

KEY SKILLS DEVELOPED

- Listening and responding
- Reading and responding
- Speaking, writing and grammar

These skills must be practised regularly to meet the demands of increasing language competency.

ASSESSED TASKS

- Imaginative writing
- Response to spoken and written texts
- Informative, persuasive or evaluative writing
- Interview
- Oral examination
- Written examination

PREREQUISITES

VCE Indonesian Second Language is designed for students who have typically studied the language for at least 200 hours prior to commencement of this subject.

PATHWAYS

Completion of these units may lead to work in the government, education or the travel industry.

Mathematics

FOUNDATION MATHEMATICS - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who need mathematical skills to support their other VCE and/or VETiS subjects, and who do not intend to undertake Unit 3 and 4 studies in VCE Mathematics. There is a strong emphasis on using mathematics in practical contexts relating to everyday life, recreation, work and study. These units satisfy the Numeracy requirements of the VCAL program, with each unit taking either one semester, or one year to complete.

LEARNING OUTCOMES

- Use and apply mathematical concepts, skills and procedures to solve everyday and real-life problems
- Apply mathematical procedures to solve practical problems and communicate the results
- Select and use technology to solve problems in practical contexts.

TOPICS COVERED

- Space, shape and design
- Patterns and number
- Data
- Measurement

ASSESSED TASKS

- Investigations, projects, assignments and application tasks
- End of semester examination

EQUIPMENT

- Workbooks (see booklist)
- Scientific calculator*
- PECD / Laptop recommended

PREREQUISITES

- Foundation Mathematics Units 1&2 requires either Year 10 Everyday or Year 10 Continuing Mathematics
- Students undertaking Foundation Mathematics Unit 1 and 2 in Year 11 are not expected to take a Math subject in Year 12.

PATHWAYS

Completion of this subject may lead to a career in Retail, Hospitality and most Trades.

**Refer to calculator's information on page 117.*

Mathematics

GENERAL MATHEMATICS FURTHER - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Further Mathematics Units 3&4, but also offers a broad range of topics for students requiring a Year 11 Mathematics for further studies.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse a variety of applications
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

- Linear relations and equations
- Computation and practical arithmetic
- Financial arithmetic
- Matrices
- Graphs and networks
- Number patterns and recursion
- Linear graphs and models
- Investigating and comparing data distributions
- Investigating relationships between two numerical variables

ASSESSED TASKS

- Investigations, modelling & problem-solving tasks, assignments, tests and summary notes
- Creation of a statistical analysis poster
- At the end of each semester there are two examinations, both of which allow the use of a scientific calculator, a CAS calculator and a 'Bound Reference.
- Exam one is made up of multiple choice questions
- Exam two consists of extended response questions

PREREQUISITES

General Mathematics Further Units 1&2 requires either Year 10 Continuing or Year 10 Pre-VCE Mathematics.

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PATHWAYS

Completion of this subject may lead to careers in Nursing, Teaching, Commerce and Agribusiness.

**Refer to calculator's information on page 117.*

Mathematics

FURTHER MATHEMATICS - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

This course consists of a compulsory area of study (two topics) and then a selection of two modules. It offers a range of topics for students requiring a good understanding of mathematical skills in their chosen career path.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse a variety of contexts of increasing complexity
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

Core area of study (Unit 3)

- Data analysis
- Recursion and financial modelling

Two Modules (Unit 4)

- Matrices
- Networks and decision mathematics

ASSESSED TASKS

- A two-week data analysis application task
- Three modelling or problem-solving tasks, each taking approximately one week
- End of year examinations, both of which allow the use of a scientific calculator, a CAS calculator and a 'Bound Reference'

PREREQUISITES

Further Mathematics Units 3&4 recommends completion of either Year 11 General Mathematics Further or Year 11 Mathematical Methods.

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PATHWAYS

Completion of this subject may lead to careers in Nursing, Teaching, Commerce & Banking and Agribusiness.

**Refer to calculator's information on page 117.*

Mathematics

MATHEMATICAL METHODS - UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake Mathematical Methods Units 3 & 4.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse a variety of applications
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

- Functions and graphs
- Algebra of polynomials, circular functions, exponential functions and logarithmic functions
- Probability, which involves both random experiments and conditional probability
- Statistics
- Calculus, which involves differentiation, antidifferentiation and integration

ASSESSED TASKS

- Investigations, modelling & problem-solving tasks, assignments, tests and summary notes

At the end of each semester there are two examinations;

- Exam one involves short answer questions. It is technology free, without use of a 'Bound Reference' or calculators
- Exam two is made up of multiple choice questions and extended response questions. The use of a scientific calculator, a CAS calculator and a 'Bound Reference' are allowed

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PREREQUISITES

Mathematical Methods Units 1&2 requires Year 10 Pre-VCE Mathematics.

PATHWAYS

Completion of this subject may lead to careers in Engineering, Medicine, Pharmacy, Software Development, Forensics and Research.

**Refer to calculator's information on page 117.*

Mathematics

MATHEMATICAL METHODS - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake further tertiary studies.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse applications in a variety of contexts of increasing complexity
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

- Functions and graphs
- Algebra of polynomials, circular functions, exponential functions and logarithmic functions
- Calculus, which involves differentiation, antidifferentiation and integration
- Probability, which involves both random experiments and conditional probability
- Statistics, including statistical inference, sample statistics and confidence intervals

ASSESSED TASKS

- A two-week function and calculus-based application task (Unit 3)
- Two modelling or problem-solving tasks, each taking approximately one week (Unit 4)

There are two external end of year examinations

- Exam one involves short answer questions. It is technology-free, without the use of a 'Bound Reference' or calculator
- Exam two is made up of multiple choice questions and extended response questions. The use of a scientific calculator, a CAS calculator and a 'Bound Reference' are allowed

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PREREQUISITES

Mathematical Methods Units 3&4 requires Year 11 Mathematical Methods.

PATHWAYS

Completion of this subject may lead to careers in Engineering, Medicine, Pharmacy, Software Development, Forensics and Research.

**Refer to calculator's information on page 117.*

Mathematics

SPECIALIST MATHEMATICS - UNITS 1&2

REMOTE LEARNING ONLY

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTIONS

This course is designed for students who wish to undertake Specialist Mathematics Units 3 & 4, as well as extending their knowledge, skills and mathematical techniques for Mathematical Methods Units 1 – 4.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse a variety of applications
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

- Algebra and structure
- Arithmetic and number
- Discrete mathematics
- Geometry, measurement and trigonometry
- Graphs of linear and non-linear relations
- Statistics

ASSESSED TASKS

School assessed coursework will consist of:

- Investigations, modelling & problem-solving tasks, assignments, tests and summary notes
- Examinations at the end of each Unit will consist of a range of short answer, multiple choice and extended response questions, with both technology-free and technology-able sections

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PREREQUISITES

Specialist Mathematics Units 1&2 requires Year 10 Pre-VCE Mathematics.

PATHWAYS

Completion of this subject may lead to careers in Engineering, Medicine, Pharmacy and Research.

**Refer to calculator's information on page 117.*

Mathematics

SPECIALIST MATHEMATICS - UNITS 3&4 REMOTE LEARNING ONLY

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

This course is designed for students who wish to undertake further tertiary studies where applied mathematics is regularly utilised.

LEARNING OUTCOMES

- Define and explain key concepts and apply a range of mathematical routines and procedures
- Apply mathematical facts, concepts, models and techniques to investigate and analyse a variety of applications
- Use technology to develop ideas, produce results and analyse problem-solving, modelling or investigative techniques

TOPICS COVERED

- Functions and graphs
- Algebra
- Calculus
- Vectors
- Mechanics
- Probability and Statistics

ASSESSED TASKS

School assessed coursework will consist of:

- A two-week application task, with sections of increasing complexity (Unit 3)
- Two modelling or problem-solving tasks, each taking approximately one week (Unit 4)

There are two external examinations:

- Exam one involves short answer questions. It is technology-free, without the use of a 'Bound Reference' or calculator
- Exam two is made up of multiple choice questions and extended response questions. The use of a scientific calculator, a CAS calculator and a 'Bound Reference' are allowed

EQUIPMENT

- Textbook
- Scientific calculator*
- CAS calculator*

PREREQUISITES

Specialist Mathematics Units 3&4 requires completion of Specialist Mathematics Units 1 & 2 and concurrent or prior enrolment in Mathematical Methods Units 3&4.

PATHWAYS

Completion of this subject may lead to careers in Engineering, Medicine, Pharmacy and Research.

*Refer to calculator's information on page 117.

Science

BIOLOGY – UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

Biology is the study of living things. In Unit 1 the students discover how living things stay alive. In Unit 2 they learn how continuity of life is maintained.

LEARNING OUTCOMES

- Investigate and explain how cellular structures and systems function to sustain life
- Explain how various adaptations enhance the survival of an individual organism and within a living community, and analyse factors which affect population growth
- Design and undertake an investigation related to the survival of an organism or species, and draw conclusions based on evidence from collected data
- Compare the advantages and disadvantages of asexual and sexual reproduction and identify the role of stem cells in cell growth and differentiation in medical therapies
- Apply an understanding of genetics to describe patterns of inheritance, predict outcomes of genetic crosses and identify the implications of genetic screening
- Investigate and communicate a response to an issue in genetics and/or reproductive science

TOPICS COVERED

- How do organisms function?
- How do living systems sustain life?
- How does reproduction maintain the continuity of life?
- How is inheritance explained?

ASSESSED TASKS

- Practical work folio
- Bioinformatics exercise
- Media response
- Visual planner
- Reflective learning journal
- Research poster
- Field work activity
- Problem solving
- Mid-year and end of year internal examinations

EQUIPMENT

- Textbook, Edrolo (online resources)

PREREQUISITES

Biology Units 1&2 requires Year 10 Core Science or Year 10 Pre-VCE Science.



PATHWAYS

Completion of this subject may lead to a career in Science, Biomedical Science, Health Science, Veterinary Science or Paramedicine and Nursing.

Science

BIOLOGY – UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Biology is the study of living things. In Unit 3 the students discover how cells maintain life. In Unit 4 they learn how life changes and responds to challenges over time.

LEARNING OUTCOMES

- Explain the dynamic nature of the cell in terms of key cellular processes including regulation, photosynthesis and cellular respiration, and analyse factors that affect the rate of biochemical reactions
- Apply a stimulus-response model to explain how cells communicate with each other, outline human responses to invading pathogens, distinguish between the different ways that immunity may be acquired, and explain how malfunctions of the immune system cause disease
- Analyse evidence for evolutionary change, explain how relatedness between species is determined, and elaborate on the consequences of biological change in human evolution
- Describe how tools and techniques can be used to manipulate DNA, explain how biological knowledge is applied to biotechnical applications, and analyse the interrelationship between scientific knowledge and its applications in society
- Design and undertake an investigation related to cellular processes and/or biological change and continuity over time, and present methodologies, findings and conclusions in a scientific poster

TOPICS COVERED

- How do cellular processes work?
- How do cells communicate?
- How are species related?
- How do humans impact on biological processes?

ASSESSED TASKS

- Practical work logbook
- Media response
- Reflective learning journal
- Scientific research poster
- External end-of-year examination

EQUIPMENT

- Textbook, Edrolo (online resources)

PREREQUISITES

Undertaking Biology 3&4 requires a satisfactory pass in Biology 1&2.

PATHWAYS

Completion of this subject may lead to a career in Science, Environmental Science, Health Science, Veterinary Science or Paramedicine.

Science

PSYCHOLOGY – UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 2, Semester 1 and Unit 1, Semester 2).

SUBJECT DESCRIPTION

Psychology explores how people think, feel and behave. In Unit 1 the students investigate the structure and functioning of the human brain. In Unit 2 they investigate how perception of stimuli enables a person to interact with the world around them.

LEARNING OUTCOMES

- Describe how understanding of brain structure and function has changed over time, explain how different areas of the brain coordinate different functions, and explain how brain plasticity and brain damage can change psychological functioning
- Identify the varying influences of nature and nurture on a person's psychological development, and explain different factors that may lead to typical or atypical psychological development
- Investigate and communicate a substantiated response to a question related to brain function and/or development
- Compare the sensations and perceptions of vision and taste, and analyse factors that may lead to the occurrence of perceptual distortions
- Identify factors that influence individuals to behave in specific ways, and analyse ways in which others can influence individuals to behave differently

TOPICS COVERED

- How does the brain function?
- What influences psychological development?
- What influences a person's perception of the world?
- How are people influenced to behave in particular ways?

ASSESSED TASKS

- Practical work logbook
- Media response
- Visual planner
- Multimedia presentation
- Research poster
- Mid-year and end of year internal examinations

EQUIPMENT

- Textbook, Edrolo (online resources).

PATHWAYS

V Completion of this subject may lead to a career in Teaching, Child Care, Medicine, Health, Counselling or Social Work.

C
E

Science

PSYCHOLOGY – UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

Psychology explores how people think, feel and behave. In Unit 3 the students learn how the human nervous system enables a person to interact with the world around them. In Unit 4, they examine the nature of consciousness and how it can affect mental processes and behaviour.

LEARNING OUTCOMES

- Explain how the structure and function of the human nervous system enables a person to interact with the external world and analyse the different ways in which stress can affect nervous system functioning
- Apply biological and psychological explanations for how new information can be learnt and stored in memory, and provide biological, psychological and social explanations of a person's inability to remember information
- Explain consciousness as a continuum, compare theories about the purpose and nature of sleep, and elaborate on the effects of sleep disruption on a person's functioning
- Explain the concepts of mental health and mental illness including influences of risk and protective factors, apply a biopsychosocial approach to explain the development and management of specific phobia, and explain the psychological basis of strategies that contribute to mental wellbeing
- Design and undertake a practical investigation related to mental processes and psychological functioning, and present methodologies, findings and conclusions in a scientific poster

TOPICS COVERED

- How does the nervous system enable psychological functioning?
- How do people learn and remember?
- How do levels of consciousness affect mental processes and behaviour?
- What influences mental wellbeing?

ASSESSED TASKS

- Practical work log book
- Media response
- Reflective learning journal
- Scientific research poster
- End of year external examination

EQUIPMENT

- Textbook, Edrolo (online resources)

PREREQUISITES

It is recommended that students undertaking Psychology Units 3&4 have satisfactorily completed Psychology Units 1&2.

PATHWAYS

Completion of this subject may lead to a career in Teaching, Medicine, Health, Counselling or Social Work, Psychologist.

Science

CHEMISTRY – UNITS 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

VCE Chemistry enables students to consider the relationship between materials and energy.

Unit 1: Students focus on models and theories to understand how chemistry has and continues to evolve in response to new evidence and discoveries.

Unit 2 : Students focus on the properties of water and the reactions that take place in water including acid-base and redox reactions.

LEARNING OUTCOMES

- Relate the position of elements in the periodic table to their properties, investigate the structures and properties of metals and ionic compounds, and calculate mole quantities
- Investigate and explain the properties of carbon lattices and molecular substances with reference to their structure and bonding, use systematic nomenclature to name organic compounds, and explain how polymers can be designed for a purpose
- Investigate a question related to the development, use and/or modification of a selected material or chemical and communicate a substantiated response to the question
- Relate the properties of water to its structure and bonding, and explain the importance of the properties and reactions of water in selected contexts
- Measure amounts of dissolved substances in water and analyse water samples for salts, organic compounds and acids and bases
- Design and undertake a quantitative laboratory investigation related to water quality, and draw conclusions based on evidence from collected data

TOPICS COVERED

- How can knowledge of elements explain the properties of matter?
- How can the versatility of non-metals be explained?
- Research Investigation
- How do substances interact with water?
- How are substances in water measured and analysed?

ASSESSED TASKS

- Practical work reports
- Data analyses
- Research investigations
- Scientific posters
- Topic tests
- Mid-year and end of year internal examinations

EQUIPMENT

- Textbook
- Workbook
- Scientific calculator
- Logbook provided

PREREQUISITES

Chemistry Units 1&2 requires either Year 10 Core Science or Year 10 Pre-VCE Science.

PATHWAYS

Completion of this subject may lead to careers in Biochemistry, Agricultural Science, Pharmacy, Nursing, Teaching or Medical Research.



Science

CHEMISTRY – UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

VCE Chemistry enables students to examine a range of chemical, biochemical and geophysical phenomena through the exploration of the nature of chemicals and chemical processes.

Unit 3 explores energy options and the chemical production of materials with reference to efficiencies, renewability and the minimisation of their impact on the environment.

Unit 4 investigates the structural features, bonding, typical reactions and uses of the major families of organic compounds including those found in food.

LEARNING OUTCOMES

- Compare fuels quantitatively with reference to combustion products and energy outputs, apply knowledge of the electrochemical series to design, construct and test galvanic cells, and evaluate energy resources based on energy efficiency, renewability and environmental impact
- Apply rate and equilibrium principles to predict how the rate and extent of reactions can be optimised, and explain how electrolysis is involved in the production of chemicals and recharging of batteries
- Compare the general structures and reactions of the major organic families of compounds, deduce structures of organic compounds using instrumental analysis data, and design reaction pathways for the synthesis of organic molecules
- Distinguish between the chemical structures of key food molecules, analyse the chemical reactions involved in the metabolism of the major components of food including the role of enzymes, and calculate the energy content of food using calorimetry
- Design and undertake a practical investigation related to energy and/or food, and present methodologies, findings and conclusion in a scientific poster

TOPICS COVERED

- What are the options for energy production?
- How can the yield of a chemical product be optimised?
- How can the diversity of carbon compounds be explained and categorised?
- What is the chemistry of food?

ASSESSED TASKS

- Practical reports and log book
- Second hand data analysis
- Topic tests
- Digital poster on practical research
- End of year external examination

EQUIPMENT

- Textbook
- Workbook

PREREQUISITES

It is recommended that students undertaking Chemistry Units 3 & 4 have satisfactorily completed Chemistry Units 1&2.

PATHWAYS

Completion of this subject may lead to careers in Biochemistry, Agricultural Science, Pharmacy, Nursing, Teaching or Medical Research.

Science

PHYSICS – UNIT 1&2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

VCE Physics provides students with opportunities to explore questions related to the natural and constructed world. In Unit 1 students investigate the thermodynamic principles related to heating processes, including concepts of temperature, energy and work. In Unit 2 students observe motion and explore the effects of balanced and unbalanced forces on motion.

LEARNING OUTCOMES

- Apply thermodynamic principles to analyse, interpret and explain changes in thermal energy in selected contexts, and describe the environmental impact of human activities with reference to thermal effects and climate science concepts
- Investigate and apply a basic DC circuit model to simple battery-operated devices and household electrical systems, apply mathematical models to analyse circuits, and describe the safe and effective use of electricity by individuals and the community
- Explain the origins of atoms, the nature of subatomic particles and how energy can be produced by atoms
- Investigate, analyse and mathematically model the motion of particles and bodies
- Apply concepts of physics to a selected topic based on a different observation of the physical world
- Design and undertake an investigation of a physics question related to the scientific inquiry processes of data collection and analysis, and draw conclusions based on evidence from collected data

TOPICS COVERED

- How can thermal effects be explained?
- How do electric circuits work?
- What is matter and how is it formed?
- How can motion be described and explained?

ASSESSED TASKS

- Practical work log book
- Extended practical investigation
- Data analysis
- Reflective learning journal
- Scientific research poster
- Mid-year and end of year internal examinations

EQUIPMENT

- Textbook

PREREQUISITES

Physics Units 1&2 requires either Year 10 Core Science or Year 10 Pre-VCE Science.

PATHWAYS

Completion of this subject may lead to career in Astrophysics, Education, Engineering, Radiography, Forensics or Sports Science.



This subject is only offered through Victoria Virtual Learning Network (VVLN).

Science

PHYSICS – UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

VCE Physics provides students with the opportunity to gain a better understanding of the underlying laws of nature and explain the physical world through observations, measurements and experiments. In Unit 3 students explore the importance of energy in explaining and describing the physical world. In Unit 4 students explore the use of wave and particle theories to model the properties of light and matter.

LEARNING OUTCOMES

- Analyse gravitational, electric and magnetic fields, and use these to explain the operation of motors and particle accelerators and the orbits of satellite
- Analyse and evaluate an electricity generation and distribution system
- Investigate motion and related energy transformations experimentally, analyse motion using Newton's laws of motion in one and two dimensions, and explain the motion of objects moving at very large speeds using Einstein's theory of special relativity
- Apply wave concepts to analyse, interpret and explain the behaviour of light
- Provide evidence for the nature of light and matter, and analyse the data from experiments that supports this evidence
- Design and undertake a practical investigation related to waves or fields or motion, and present methodologies, findings and conclusions in a scientific poster

TOPICS COVERED

- How do things move without contact?
- How are fields used to move electrical energy?
- How fast can things go?
- How can waves explain the behaviour of light?
- How are light and matter similar?

ASSESSED TASKS

- Practical work log book
- Practical investigation
- Data analysis
- Reflective learning journal
- Scientific research poster
- End of year external examination

EQUIPMENT

- Textbook

PREREQUISITES

It is recommended that students undertaking Physics Units 3 & 4 have successfully completed Physics Units 1&2.

PATHWAYS

Completion of this subject may lead to career in Astrophysics, Education, Engineering, Radiography, Forensics or Sports Science.

This subject is only offered through Victoria Virtual Learning Network (VVLN).

Technology

FOOD STUDIES UNIT 1 & 2

This is an elective subject and runs for the whole year. (Unit 1, Semester 1 and Unit 2, Semester 2).

SUBJECT DESCRIPTION

UNIT 1- FOOD ORIGINS

This unit focuses on food from historical and cultural perspectives. Students investigate the origins and roles of food through time and across the world. It also looks at Australia's cultural identity today. It involves food preparation and cooking, making food decisions and research tasks.

LEARNING OUTCOMES

On completion of this unit the student should be able to:

- Identify and explain major factors in the development of a globalised food supply, and demonstrate adaptations of selected food from earlier cuisines, through practical activities
- Describe patterns of change in Australia's food industries and cultures, and use foods indigenous to Australia, and those introduced through migration, in the preparation of food products

KEY SKILLS DEVELOPED

- Research and investigate set topics
- Ability to use the design process to plan and produce food items within a topic
- Conduct sensory evaluations of food products tasted and produced
- To be able to work safely and hygienically in the school kitchen and build on practical skills
- To be able to work as part of a team in the kitchen environment

ASSESSED TASKS

- Written and practical tasks
- End of semester examinations

SUBJECT DESCRIPTION

UNIT 2 - 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. Students gain insight into the significance of food industries to the Australian economy and investigate the capacity of industry to provide safe, high-quality food that meets the needs of consumers.

LEARNING OUTCOMES

- Describe Australia's major food industries, analyse relationships between food suppliers and consumers, discuss measures in place to ensure a safe food supply and design a brief and a food product that demonstrates the application of commercial principles
- Compare and evaluate similar foods prepared in different settings, explain the influences on effective food provision and preparation in the home, and design and create a food product that illustrates potential adaptation in a commercial context

KEY SKILLS DEVELOPED

- Research and investigate set topics
- Ability to use the design process to plan and produce food items within a topic
- Conduct sensory evaluations of food products tasted and produced
- To be able to work safely and hygienically in the school kitchen and build on practical skills
- To be able to work as part of a team in the kitchen environment

ASSESSED TASKS

- Written and practical tasks and end of semester examination

PATHWAYS

This subject may lead to a career in home economics, consumer science, dietetics, health promotion, food technology, food manufacturing, hospitality and education.



Technology

FOOD STUDIES - UNITS 3&4

This is an elective subject and runs for the whole year. (Unit 3, Semester 1 and Unit 4, Semester 2).

SUBJECT DESCRIPTION

UNIT 3 - FOOD IN DAILY LIFE

This unit includes the science of food, functional properties of food (how ingredients work in recipes), and the principles behind the Australian Dietary Guidelines and Australian Guide to Healthy Eating.

LEARNING OUTCOMES

- Explain the processes of eating and digesting food and absorption of macronutrients, explain causes and effects of food allergies, food intolerances and food contamination, analyse food selection models, and apply principles of nutrition and food science in the creation of food products
- Explain and analyse factors affecting food access and choice, analyse the influences that shape an individual's food values, beliefs and behaviours, and apply practical skills to create a range of healthy meals for children and families

KEY SKILLS DEVELOPED

- Research and investigate set topics
- Conduct practical activities, including some that relate to the functional properties of food, and healthy meals for families and children
- To be able to work safely and hygienically in the school kitchen, and build on practical skills
- To be able to work as part of a team in the kitchen environment

ASSESSED TASKS

- Written and practical tasks

PATHWAYS

This subject may lead to a career in home economics, consumer science, dietetics, health promotion, food technology, food manufacturing, hospitality and education.

SUBJECT DESCRIPTION

UNIT 4 - FOOD ISSUES, CHALLENGES AND FUTURES

This unit includes: global and Australian food systems, food production and the challenges faced, food information and making food choices, food fads, trends and diets, and food labelling.

LEARNING OUTCOMES

- Explain a range of food systems issues, respond to a selected debate with analysis of problems and proposals for future solutions, apply questions of sustainability and ethics to the selected food issue, and develop and create a food repertoire that reflects personal food values and goals
- Explain a variety of food information contexts, analyse the formation of food beliefs, evaluate a selected food trend, fad or diet, and create food products that meet the Australian Dietary Guidelines

KEY SKILLS DEVELOPED

- Research and investigate set topics
- Conduct practical activities, including some that relate to sustainable and/or ethical food choices and healthy food choices, related to the Australian Dietary Guidelines and Australian Guide to Healthy Eating
- To be able to work safely and hygienically in the school kitchen and build on practical skills
- To be able to work as part of a team in the kitchen environment

ASSESSED TASKS

- Written and practical tasks and end of year exam

PREREQUISITES

This unit requires units 3 & 4 to be studied as a sequence.

PATHWAYS

This subject may lead to a career in home economics, consumer science, dietetics, health promotion, food technology, food manufacturing, hospitality and education.

Technology

SYSTEM ENGINEERING - UNITS 1 & 2

Systems engineering provides an opportunity for students to develop capabilities in, and knowledge about, the design, operation, construction, assembly, maintenance, diagnosis, repair and evaluation of technological systems, and gain awareness and understanding of the interactions of these systems with human society.

SUBJECT DESCRIPTION

UNIT 1- INTRODUCTION TO MECHANICAL SYSTEMS

In this area of study students learn about the fundamental mechanical engineering principles and the components required to produce an operational system. Students learn the fundamental principles of how mechanisms and simple mechanical systems provide movement and mechanical advantage.

LEARNING OUTCOMES

- Recognise, identify, illustrate and use theoretical principles of mechanical systems
- Analyse a technological system in terms of its operation, function, energy use and social and environment implications
- Use appropriate processes in the designing, planning, manufacturing, documenting ,performance testing, and fault
- Diagnosis and evaluation of a functional system

KEY SKILLS DEVELOPED

- Using appropriate engineering terms explain how mechanical systems function
- Identify and represent components and mechanical systems in symbolic form using input-process-output (IPO) diagrams and simulation software
- Identify and select appropriate subsystems and components that will form operational systems
- Test, measure and record appropriate systems parameters to evaluate system performance
- Perform basic calculation on linkages, gear ratios and pulleys
- Apply the systems engineering process to identify and document the problem, need, opportunity or situation
- Apply the systems engineering process to research, design and plan the operational integrated and controlled systems
- Describe the factors that influence the creation and use of the system

SUBJECT DESCRIPTION

UNIT 2 – INTRODUCTION TO ELECTROTECHNOLOGY SYSTEMS

In this area of study students focus on electrotechnology engineering principles and the elements that make operational electrotechnology systems. Students develop an understanding of commonly used components, their physical appearance and how they can be represented in circuit diagrams and in simulation software.

LEARNING OUTCOMES

- Recognise, identify, illustrate and use theoretical principles of electro-technology systems and sub-systems
- Identify electrical/electronic components and symbols

KEY SKILLS DEVELOPED

- Identify and represent electrotechnological systems in diagrammatic and symbolic forms
- Select appropriate electrotechnological subsystems and electronic components that will form operational systems and subsystems
- Construct and interpret circuit diagrams, schematics, PCD artwork, breadboard and Veroboard representations of electrical circuits, and be able to transform one presentation into another
- Measure, test and evaluate the electrotechnological system parameters using appropriate measuring and testing equipment, measure voltage, current and resistance, and represent and interpret the results
- Apply formulas to solve and calculate electrical circuit parameters using OHM's Law and power calculations
- Use digital technologies to simulate and demonstrate electrotechnological principles
- Interpret the resistor values in four and five colour band resistors with reference to a colour code chart

ASSESSED TASKS

- Documentation of systems engineering process using one or more of - a multimedia / simulation presentation, an electronic portfolio, a brochure, a poster or a written report
- Production work to create an electrotechnological system
- Practical demonstrations
- Oral Presentation

PATHWAYS

This subject may lead into careers in the engineering field.



Technology

SYSTEM ENGINEERING - UNITS 3 & 4

Systems engineering provides an opportunity for students to develop capabilities in, and knowledge about, the design, operation, construction, assembly, maintenance, diagnosis, repair and evaluation of technological systems, and gain awareness and understanding of the interactions of these systems with human society.

SUBJECT DESCRIPTION

UNIT 3 – INTRODUCTION TO ELECTROTECHNOLOGY SYSTEMS

This unit focuses on how mechanical and electrotech systems are combined to form a controlled integrated technological system.

LEARNING OUTCOMES

- Investigate, analyse and apply concepts and principles, and use components to design, plan and commence production of an integrated and controlled mechanical and electrotechnological system using the systems engineering process
- A record of investigation, design, planning and production
- Preliminary production work to create a mechanical and electrotechnological integrated and controlled system

KEY SKILLS DEVELOPED

- Apply OHM's Law to calculate voltage, current and resistance
- Calculate power using voltage and current
- Describe the operation of mechanical and electrotechnological systems using appropriate engineering terminology, operational systems and subsystems
- Measure and diagnose mechanical and electrotechnological system parameters using appropriate measuring and testing equipment, OHM's Law and power calculations on DC, or purely AC circuits
- Use digital technologies to simulate and demonstrate mechanical and electrotechnological principles
- Interpret the resistor values in four and five colour band resistors with reference to a colour code chart and interpret component data sheets
- Explain factors that influence the creation and use of the integrated system
- Apply the systems engineering process to research, design, plan and commence production of the operational integrated and controlled system

SUBJECT DESCRIPTION

UNIT 4 – SYSTEMS CONTROL AND NEW AND EMERGING TECHNOLOGIES

In this unit students complete the production work and test and evaluate the system they designed in Unit 3.

Students will investigate new and emerging technologies, consider reasons for their development and analyse their impacts.

LEARNING OUTCOMES

- Finalise production, test and diagnose a mechanical and electrotechnological integrated and controlled system using the systems engineering process, and manage, document and evaluate the system and processes, as well as their use of it
- Completion of production work accompanied by a record of progress and modifications (images and text material)
- A record of diagnostic testing and performance data
- A report that evaluates and suggests improvements to the system with reference to the factors that influenced its creation and to the student's use of the systems engineering process

KEY SKILLS DEVELOPED

- Apply the systems engineering process to produce, test, diagnose, evaluate and report on the system by:
- Implementing the work plan using a range of production processes
- Selecting and using materials, tools, equipment and machines compliant with OH&S obligations
- Interpreting circuit diagrams, schematics, and PCB artwork
- Testing, measuring, diagnosing, repairing or modifying and recording appropriate system parameters to monitor quality and optimise system and subsystem performance
- Evaluate the use of the system engineering process

ASSESSED TASKS

- Written and practical tasks through SACs, and SATs
- End-of-year examination

PATHWAYS

This subject may lead into careers in the engineering field.

VETiS

Subject overview

In 2021 Maryborough Education Centre is committed to providing quality programs to students. This can be provided on-site in classes by our qualified staff in partnerships with an RTO (Registered Training Organisations). This may be provided as a direct enrolment in an external course with time given here at school as part of their program. The second option is provided at the site of the TAFE or RTO and the student completes learning by travelling off-site to the venue at a specific time in the week.

Refer to page 7 & 8 for information on School Based Apprenticeships/Traineeships and the Headstart Program

The following will be offered for delivery at MEC: *

10279NAT Certificate II in Applied Languages (Indonesian)
MST20616 Certificate II in Applied Fashion Design & Technology
22338VIC Certificate II in Building and Construction
SHB20216 Certificate II in Salon Assistant (Hairdressing)
SIT20416 Certificate II in Kitchen Operations (Hospitality)
SIS30115 Certificate III in Sport and Recreation
CUA30915 Certificate III in Music Industry (Sound Production)
AUR20716 Certificate II in Automotive Vocational Preparation

VETiS in the VCE and VCAL

VETiS in the VCE or VCAL allows students to include vocational studies within their senior secondary certificate. Students undertake nationally recognised training from either accredited state, curriculum or national training packages, which may contribute to their VCE and/or VCAL.

Scored assessment for VCE VETiS programs

Selected VCE VETiS programs offer scored assessment for Units 3 and 4. Please see VETiS class teacher, Careers Coordinator or Later Years staff to discuss further information on VCE VETiS scored programs.

Unique Student Identifier (USI)

All students undertaking, or intending to undertake a VETiS subject in 2021 must obtain a compulsory

Unique Student Identifier (USI) number from: <https://www.usi.gov.au/your-usi/create-usi>

Ideally this number should be obtained before the end of the 2020 school year. The staff in Careers will only be too happy to assist students to obtain this number.

For information on external VET options offered through the Highlands LLEN VET Cluster, please make an appointment with the Careers & Pathways Coordinator.

VETiS

Highlands LLEN VET Cluster

The Highlands LLEN VET Cluster is a partnership between secondary education providers within the Highlands Region.

Programs 2021

Agriculture
Allied Health Assistance
Animal Studies
Automotive
Building & Construction
Community Services
Dance
Early Childhood Education & Care
Electrotechnology
Engineering
Equine Studies
Information, Digital Media and Technology
Kitchen Operations
Music Industry - Sound Production
Plumbing
Retail Cosmetics
Salon Assistance
Screen & Media

New Programs for 2021:

Furniture Making
Landscaping
Music Industry - Performance*
Sport & Recreation*

Specialist Programs:

Animal Studies*

* Programs yet to be confirmed

VETiS

CERTIFICATE II IN APPLIED LANGUAGES (INDONESIAN) 10279NAT

This course is classroom based at MEC

* This subject is taken in the place of 'Year 10 Indonesian'

SUBJECT DESCRIPTION

This certificate focuses on four main competencies:

- Oral communication in social contexts
- Reading and writing in social contexts
- Oral communication in a workplace context
- Reading and writing in a workplace context

LEARNING OUTCOMES

- Opportunities for native speaker oral and written communication
- Oral and written communication in the classroom

Here is an example course structure for this VETis course which may vary slightly depending on the auspicing RTO.

<i>Core units of competency First Year</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
CALOCS201	CONDUCT BASIC ORAL COMMUNICATION FOR SOCIAL PURPOSES IN A LANGUAGE OTHER THAN ENGLISH	70
CALOCW202	CONDUCT BASIC WORKPLACE ORAL COMMUNICATION IN A LANGUAGE OTHER THAN ENGLISH	70
CALRW203	READ AND WRITE BASIC DOCUMENTS FOR SOCIAL PURPOSES IN A LANGUAGE OTHER THAN ENGLISH	70
CALRWW204	READ AND WRITE WORKPLACE DOCUMENTS IN A LANGUAGE OTHER THAN ENGLISH	70

ASSESSED TASKS

- Role plays
- Social Media unit
- Email communication in Indonesian
- Reading comprehension task
- Workplace Indonesian as negotiated with individual student

PREREQUISITE

Year 9/10 Indonesian.

PATHWAYS

Upon completion of Certificate II in Indonesian, students may continue on to VCE Indonesian or obtain work using their language in the fields of tourism, international media, government or teaching.

VETiS

CERTIFICATE II IN APPLIED FASHION DESIGN AND TECHNOLOGY MST20616

This course is classroom based at MEC

SUBJECT DESCRIPTION

This subject provides students with the knowledge and skills to enhance their employment prospects in the fashion design and textile production industries. Students develop skills used in the design and production of garments and millinery, as well as in the development of unique fashion and textile designs.

LEARNING OUTCOMES

- Unit 1 modules consist of OH&S policies and procedures, use of a sewing machine, sewing samples, creating of a basic bodice, how to modify patterns to create a basic style and identifying of Fibres & Fabrics
- Unit 2 modules consist of how to draw and interpret a basic sketch, design and production of a simple garment, identify processes for fashion design and knowledge of sustainable work practises
- Unit 3 modules consist of researching fashion in the Twentieth Century as well as designing and producing a garment drawing on researched styles
- Unit 4 modules consist of a final garment demonstrating high levels of skill, three forms of embellishments and a detailed folio demonstrating design, sampling, production and evaluation of the completed garment

Here is an example course structure for this VETis course which may vary slightly depending on the auspicing RTO.

<i>Core units of competency</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
MSMWS200	Work Safely	30
MSTFD2006	Use a sewing machine for Fashion Design	80
MSTCL2010	Modify a pattern to create basic styles	50
MSTCL1001	Produce a simple garment	40
MSTGN2011	Identify Fibres, Fabrics and Textiles used in the TCF Industries	80
MSTFD2001	Design and Produce a Simple Garment	80
MSS402051	Apply Quality Standards	30
MSTFD2005	Identify Design Process for Fashion Design	40
MSTCL2011	Draw and Interpret a basic sketch	30
MSTTX1001	Produce a simple textile fabric or product	40
MSMENV272	Participate in Environmentally Sustainable Work Practises	30
MSTGN2003	Work in the TCF (Textiles, Clothing & Footwear) Industry	40

ASSESSED TASKS

- An A3 size portfolio created both manually and digitally demonstrating a satisfactory result in all aspects of the theoretical work and samples of practical work
- Completion of garments and textiles products demonstrating competency in all aspects of the practical work

PRE-REQUISITES

There are no prerequisites for Certificates in Applied Fashion Design and Technology but it is preferred that Units 1 & 2 are completed in Year 11 before Units 3 & 4 in Year 12.

ATAR contribution

Students who receive a units 3 and 4 sequence for any of the VCE VET Applied Fashion Design and Technology will be eligible for an increment towards their ATAR (10 per cent of the lowest study score of the primary four studies).

PATHWAYS

Upon a successful completion of Certificate II, students can continue studying to gain units that make up Certificates III and IV of Applied Fashion Design and Technology. Studies in Textiles assist in various careers of Design, Production, Technology, Retail and Marketing within the Textiles Industries of Craft, Commercial, Corporate, Fashion and Theatre.

VETiS

CERTIFICATE II IN AUTOMOTIVE VOCATIONAL PREPARATION AUR20716

This course is classroom based at MEC.

SUBJECT DESCRIPTION

This subject is aimed at students who are focussed on obtaining an apprenticeship or traineeship in the automotive industry, have mechanical aptitude, are interested in the theory of mechanical and electrical components, and enjoy an individualised learning environment. This program provides students with a broad base of skills necessary to maintain and service a wide range of vehicles and components, and provides a head start in gaining automotive apprenticeships.

LEARNING OUTCOMES

Students will be required to undertake various classroom and workshop based activities ranging from completing projects on job seeking skills, to industry research, occupational health and safety and automotive theory practice.

Credit upon successful completion of program:

- Pre-apprenticeship qualification in Automotive Technology
- Up to one year off a Certificate III apprenticeship qualification in automotive
- Certificate II in Automotive Technology (Pre Vocational) (22015VIC)
- Units 1-4 in VCE VETiS Automotive
- ATAR Increment(10% of best 4 scored VCE subjects)
- 4 VCAL units in Industry Specific Skills at Intermediate of Senior Certificate level

Here is an example course structure for this VETiS course which may vary slightly depending on the auspicing RTO.

<i>Core units of competency First Year</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
AURFA003	COMMUNICATE EFFECTIVELY IN AN AUTOMOTIVE WORKPLACE	20
AURFA002	FOLLOW SAFE WORKING PRACTICES IN AN AUTOMOTIVE WORKPLACE	20
AURETR003	IDENTIFY AUTOMOTIVE ELECTRICAL SYSTEMS AND COMPONENTS	25
AURLTA001	IDENTIFY AUTOMOTIVE MECHANICAL SYSTEMS AND COMPONENTS	25
AURTTK002	USE AND MAINTAIN TOOLS AND EQUIPMENT IN AN AUTOMOTIVE WORKPLACE	20
AURTTA027	CARRY OUT BASIC VEHICLE SERVICING OPERATIONS	40
AURTTE008	DISMANTLE AND ASSEMBLE MULTI-CYLINDER FOUR-STROKE PETROL ENGINES	40
<i>Core units of competency Second Year</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
AURAEA002	FOLLOW ENVIRONMENTAL AND SUSTAINABILITY BEST PRACTICE IN AN AUTOMOTIVE WORKPLACE	25
AURFA004	RESOLVE ROUTINE PROBLEMS IN AN AUTOMOTIVE WORKPLACE	20
AURETK003	OPERATE ELECTRICAL TEST EQUIPMENT	40
AURTTD006	REMOVE AND REPLACE VEHICLE FRONT SUSPENSION SPRINGS	25
AURTTK001	USE AND MAINTAIN TOOLS AND EQUIPMENT IN AN AUTOMOTIVE WORKPLACE	15
AURTTJ003	REMOVE AND REPLACE WHEEL AND TYRE ASSEMBLIES	10
AURETR048	CONSTRUCT AND TEST BASIC ELECTRONIC CIRCUITS	40

ASSESSED TASKS

- Use and Maintain Measuring Equipment
- Use and Maintain Workplace Tools and Equipment
- Recharge Batteries

PATHWAYS

With additional training and experience, future employment opportunities may include trimmer, detailer, panel beater, painter, light vehicle mechanic, heavy vehicle mechanic or motorcycle mechanic. Higher education pathways can lead to roles such as an automotive engineer. Automotive apprenticeships are available in four industry specific strands. These are electrical, mechanical, mechanics and vehicle body. Each strand has individual occupational streams and their own specialist qualifications. For example, mechanical-diesel fitter, heavy vehicle road transport and motorcycles.

***Students will be required to undertake a pre-training review and a Language, Literacy and Numeracy evaluation.**

VETiS

CERTIFICATE II IN BUILDING & CONSTRUCTION (CARPENTRY) 22338VIC

This course is classroom based at MEC

SUBJECT DESCRIPTION

The study of building and construction enables us to develop skills and acquire an understanding of the work that builders and other workers do, and the employment options that are available within the industry. It aims to provide knowledge and skills to achieve competencies which will enhance employment prospects within the building and construction workforce.

Core units of competency First Year		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
CPCCCM1012A	WORK EFFECTIVELY AND SUSTAINABLY IN THE CONSTRUCTION INDUSTRY	20
CPCCCM1014A	CONDUCT WORKPLACE COMMUNICATION	20
CPCCOHS2001A	APPLY OHS REQUIREMENTS, POLICIES AND PROCEDURES IN THE CONSTRUCTION INDUSTRY	20
CPCCWHS1001	PREPARE TO WORK SAFELY IN THE CONSTRUCTION INDUSTRY	6
VU22014	PREPARE TO WORK IN THE BUILDING AND CONSTRUCTION INDUSTRY	16
VU22015	INTERPRET AND APPLY BASIC PLANS AND DRAWINGS	25
HLTAID002	PROVIDE BASIC EMERGENCY LIFE SUPPORT	12
VU22022	IDENTIFY AND HANDLE CARPENTRY TOOLS AND EQUIPMENT	100
Core units of competency Second Year		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
CPCCCM1015A	CARRY OUT MEASUREMENTS AND CALCULATIONS	20
CPCCCM2006	APPLY BASIC LEVELLING PROCEDURES	8
VU22023	PERFORM BASIC SETTING OUT	24
VU22024	CONSTRUCT BASIC SUB-FLOOR	48
VU22025	CONSTRUCT BASIC WALL FRAMES	48
VU22026	CONSTRUCT A BASIC ROOF FRAME	40
VU22027	INSTALL BASIC EXTERNAL CLADDING	24
VU22028	INSTALL BASIC WINDOW AND DOOR FRAMES	24

LEARNING OUTCOMES

- Students will learn skills and knowledge to enable them to pursue a career in the building industry through practical demonstrations set workbooks and manuals, simulated workplace activities and classroom projects

ASSESSED TASKS

- Students must achieve a satisfactory result in all aspects of the theoretical work
- Students must demonstrate competency in all aspects of the practical work

PATHWAYS

Completion of Certificate II in Building & Construction may lead to an apprenticeship as a carpenter & joiner or cabinet maker. It may also lead to careers in building, architecture, computer aided designer, estimator, wood machinist, wood turner, building & construction worker, or an engineer.

*** Prior to commencement of this course students must undertake a pre-training review and a Language, Literacy and Numeracy evaluation.**

VETiS

CERTIFICATE II IN SALON ASSISTANT (HAIRDRESSING) SHB20216

This course is classroom based at MEC.

SUBJECT DESCRIPTION

The study of hairdressing enables us to develop skills and acquire an understanding of the work that hairdressers do and the employment options that are available within the industry. It aims to provide knowledge and skills to achieve competencies which will enhance employment prospects within the hairdressing workforce, so that you can make a more informed choice of your career path.

Here is an example course structure for this VETis course which may vary slightly depending on the auspicing RTO.

<i>Core units of competency</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
BSBWHS201	CONTRIBUTE TO HEALTH AND SAFETY OF SELF AND OTHERS	20
SHBHAS001	PROVIDE SHAMPOO AND BASIN SERVICES	40
SHBHDES001	DRY HAIR TO SHAPE	40
SHBHIND001	MAINTAIN AND ORGANISE TOOLS, EQUIPMENT AND WORK AREAS	20
SHBSXCCS001	CONDUCT SALON FINANCIAL TRANSACTIONS	25
SHBXCCS003	GREET AND PREPARE CLIENTS FOR SALON SERVICES	10
SHBXIND001	COMPLY WITH ORGANISATIONAL REQUIREMENTS WITHIN A PERSONAL SERVICES ENVIRONMENT	45
SHBXIND002	COMMUNICATE AS PART OF A SALON TEAM	30
<i>Electives</i>		
SIRRMER001	PRODUCE VISUAL MERCHANDISE DISPLAYS	35
SHBHCLS001	APPLY HAIR COLOUR PRODUCTS	30
SHHBAS002	PROVIDE HEAD, NECK AND SHOULDER MASSAGE FOR RELAXATION	20
SHBHDES002	BRAID HAIR	30

ASSESSED TASKS

- Students must achieve a satisfactory result in all aspects of the theoretical work
- Students must demonstrate competency in all aspects of the practical work

PATHWAYS

This area may lead to work as an apprentice Hairdresser, a School Based Apprenticeship in Hairdressing or you can go on to further study, including a Certificate III in Hairdressing (or higher study at TAFE).

***Prior to commencement of this course students must undertake a pre-training review and a Language, Literacy and Numeracy evaluatio**

VETiS

CERTIFICATE II IN HOSPITALITY (KITCHEN OPERATIONS) SIT20416

This course is classroom based at MEC.

SUBJECT DESCRIPTION

This qualification is suited to students who have a passion for food and the service industry. Students undertake a Certificate II in Hospitality (Kitchen Operations) which trains them in skills and knowledge for back of house operations. This qualification reflects the role of individuals working in the kitchens who use a defined and limited range of food preparation and cookery skills to prepare food and menu items.

This qualification provides a pathway to work in kitchen operations in organisations such as restaurants, hotels, catering operations, clubs, pubs, cafes, and coffee shops; and institutions such as aged care facilities, hospitals, prisons, and schools.

Possible job titles include:

- Breakfast cook
- Catering assistant
- Fast food cook
- Sandwich hand
- Takeaway cook

LEARNING OUTCOMES

- Use hygienic practices for food safety and participate in safe work practices
- Prepare simple dishes
- Produce dishes using basic methods of cookery
- Clean kitchen premises and equipment, maintain the quality of perishable items
- Participate in environmentally sustainable work practices
- Work effectively with others and use food preparation equipment
- Produce appetisers and salads, stocks, sauces and soups
- Produce vegetable, fruit, egg and farinaceous dishes
- Prepare poultry dishes and use cookery skills effectively

Here is an example course structure for this VETis course which may vary slightly depending on the auspicing RTO.

Core units of competency		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Normal hours</i>
BSBWOR203	WORK EFFECTIVELY WITH OTHERS	15
SITHCCC001	USE FOOD PREPARATION EQUIPMENT	25
SITHCCC005	PREPARE DISHES USING BASIC METHODS OF COOKERY	45
SITHCCC011	USE COOKERY SKILLS EFFECTIVELY	50
SITHKOP001	CLEAN KITCHEN PREMISES AND EQUIPMENT	13
SITXFSA001	USE HYGIENIC PRACTICES FOR FOOD SAFETY	15
SITXINV002	MAINTAIN THE QUALITY OF PERISHABLE ITEMS	10
SITXWHS001	PARTICIPATE IN SAFE WORK PRACTICES	12

ASSESSED TASKS

- Students must achieve a satisfactory result in all aspects of the theoretical work
- Students must demonstrate competency in all aspect of the practical work
- Services to paying customers
- School Assessed Coursework (SAC)

KEY SKILLS DEVELOPED

- Organisational skills to meet deadlines and work within time constraints and the ability to work in a team and independently.

PATHWAYS

Employment opportunities exist in a variety of roles, such as hotel manager, hospitality trainer, chef, pastry chef, caterer and cook. Work could be undertaken in the kitchen area of various hospitality settings, including restaurants, hotels, motels, catering operations, clubs, cafes and coffee shops.

ATAR: Students wishing to receive an ATAR contribution for the Unit 3&4 sequence must undertake scored assessment for the purposes of gaining a study score.

This study score can contribute directly to the primary four or as a fifth or sixth study.

***Prior to commencement of this course students must complete a pre-training review and a Language, Literacy and Numeracy evaluation**

VETiS

CERTIFICATE III IN MUSIC INDUSTRY (SOUND PRODUCTION) CUA30915

This course classroom based at MEC.

SUBJECT DESCRIPTION

In VETiS music, students work towards a Certificate III in Music Industry. Students learn fundamental skills in sound and lighting, with a particular focus on live music performance.

LEARNING OUTCOMES

Students study the following:

- OHS procedures in the music industry
- Using digital audio software
- Updating music industry knowledge
- Computer music
- Operating sound mixing consoles
- Recording and mixing sounds
- Radio broadcasting
- Set up and operation of portable sound systems

Here is an example course structure for this VETiS course which may vary slightly depending on the auspicing RTO.

<i>Core units of competency</i>		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
BSBWHS201	CONTRIBUTE TO HEALTH AND SAFETY OF SELF OTHERS	20
CUACMP301	IMPLEMENT COPYRIGHT ARRANGEMENTS	20
CUAIND303	WORK EFFECTIVELY IN THE MUSIC INDUSTRY	35
CUAMLT302	APPLY KNOWLEDGE TO STYLE AND GENRE TO MUSIC INDUSTRY PRACTICE	40

KEY SKILLS DEVELOPED

- Work skills, initiative and self-motivation
- Willingness to participate
- Work experience in live sound production

ASSESSED TASKS

- Project-based, with practical experience in the music industry
- End of year aural and written exam for Year 12 students
- Demonstration of industry knowledge
- Music composition using computer software
- Production of a radio program
- Recording music
- Editing audio

CONTRIBUTION TO VCE/VCAL

VCE: Students who complete Certificate III in Music Industry will be eligible for up to five Units of credit towards their VCE: up to three at the Unit 1&2 level and a Unit 3&4 sequence

VCAL: This program contributes to the Industry Specific Strand and may also contribute to the Work Related Skills strand of VCAL

ATAR: Students wishing to receive an ATAR contribution for the Unit 3&4 sequence must undertake scored assessment for the purposes of gaining a study score. This study score can contribute directly to the primary four or as a fifth or sixth study.

PATHWAYS

Certificate III in Music Production (Sound Production) typically leads to career opportunities in the entertainment and creative arts industry. There is a strong focus on sound engineering, production management and event planning, record producing and audio mixing. The certificate adequately prepares students for work in live performance, technical management or studio recording.

VETiS

CERTIFICATE III IN SPORT AND RECREATION SIS30115

This course is classroom based at MEC.

SUBJECT DESCRIPTION

The VETiS Sport and Recreation program provides students with the skills and knowledge to work in the sport and recreation industries. Throughout unit 1 and 2, students can choose from a range of electives to create a program of the choice, including sport specific activities, coaching, planning and conducting sessions. This class is classroom based subject, with a component of practical sport each week. Students also have the opportunity to gain their first aid qualification along their Certificate III in Sport and Recreation. We also investigate athlete travel and accommodation and the process of the booking this for competition

LEARNING OUTCOMES

- Organise and complete daily work activities
- Work effectively in sport, fitness and recreation environments
- Develop skills to maintain sport and recreation facilities and undertake workplace health and safety
- Demonstrate competency in first aid to successfully receive a certificate
- Assist with physical activity session
- Increase knowledge of sport, fitness and recreation knowledge

Here is an example course structure for this VETiS course which may vary slightly depending on the auspicing RTO.

Core units of competency		
<i>Unit Code</i>	<i>Unit Title</i>	<i>Nominal hours</i>
BSBWOR301	ORGANISE PERSONAL WORK PRIORITIES AND DEVELOPMENT	30
HLTAID003	PROVIDE FIRST AID	18
HLTWS001	PARTICIPATE IN WORKPLACE HEALTH AND SAFETY	20
ICTWEB201	USE SOCIAL MEDIA TOOLS FOR COLLABORATION AND ENGAGEMENT	20
SISXCAI003	CONDUCT NON-INSTRUCTIONAL SPORT, FITNESS OR RECREATION SESSIONS	20
SISXCCS001	PROVIDE QUALITY SERVICE	25
SISXEMR001	RESPOND TO EMERGENCY SITUATIONS	18

KEY SKILLS DEVELOPED

- Develop basic functional knowledge and skills for work in customer contract positions in the sport and recreation industry
- Develop skills to complete a range of administrative activities and functions within a team
- Develop skills to assess and undertake work place safety
- First aid competency
- Develop confidence to lead and take physical sessions

ASSESSED TASKS

- Units of competency and hours completed

PATHWAYS

This subject may lead into the possibility of completing Certificate III & IV in Sport and Recreation. This qualification also reflects the role of individuals who apply the skills and knowledge to work in the sports and recreation industry under supervision. For example, delivering sport and recreation programs, grounds and facilities maintenance, retail, customer service assistance and administrative assistant.

****Prior to commencement of this course students must complete a pre-training review and a Language, Literacy and Numeracy evaluation***

VCAL

Subject overview

Literacy

Everyday Mathematics (see Year 10 section of booklet)

Foundation Mathematics (see VCE section of booklet)

Personal Development Skills

Work Related Skills

Skills for Further Study

Students will follow either a foundation, intermediate or senior pathway in their VCAL Certificate.

Industry Specific Skills covered by VET units of competency, Structured Workplan Learning (SWL) Single Units eg First Aid, SBAT

VCAL

LITERACY

This subject consists of two units and runs all year.

SUBJECT DESCRIPTION

The overarching purpose of the Literacy skills strand of VCAL is to provide students with an applied “real life” approach to literacy development.

Literacy concentrates on four domains, which are outlined below:

- Literacy for self-expression focuses on aspects of personal and family life and the cultures which shape these
- Literacy for practical purposes focuses on forms of communication mainly used in the workplace and institutional settings and in communication with such organisations
- Literacy for knowledge focuses on sociological, historical and mechanical theories and concepts which are relevant to education and training
- Literacy for public debate focuses on matters of public concern and the forms of argument, reason and criticism used in the public arena

LEARNING OUTCOMES

VCAL students develop “real life” literacy skills while learning about issues that they can relate to and are pertinent to their lives.

KEY SKILLS DEVELOPED

Literacy is delivered at three levels:

- Foundation
- Intermediate
- Senior

As students’ progress through these levels as their skills and abilities develop.

ASSESSED TASKS

- The assessment methods used are appropriate for students, their learning styles and needs, the topic or field of study and learning outcome
- An A3 portfolio of evidence is submitted by a student containing evidence of that student’s own work, which demonstrates successful completion of the learning outcomes
- This portfolio of evidence can include teacher observation, logbooks, student self-assessment, video/radio broadcasts, reflective journals, reports and views, oral presentations, photographs of projects and written ICT presentations

VCAL

NUMERACY

Foundation Mathematics Units 1 and 2 are mandatory as the Numeracy subjects for VCAL.

**Please see page 73 for further information.*

VCAL

WORK RELATED SKILLS

This subject consists of two units and runs all year.

SUBJECT DESCRIPTION

The purpose of Work Related Skills is to develop employability skills, knowledge and attitudes valued within community and work environments, as a preparation for employment. The development of these skills provides learners with the capacity to consider and choose from a range of pathways.

The work related skills units are designed to;

- Research OH&S responsibilities of personnel in a work environment
- Identify and apply OH&S procedures and conduct risk assessments
- Research and analyse workplace conditions and employment opportunities
- Preparing an analysing employment applications
- Identifying workplace issues and demonstrating problem solving skills
- Working within a team to complete work related projects
- Analyse and describe employability skills

KEY SKILLS DEVELOPED

Work Related Skills is delivered at three levels:

- Foundation
- Intermediate
- Senior

As students progress through the three levels of VCAL they are required to work with increasing levels of independence.

LEARNING OUTCOMES

- VCAL students complete innovative hands-on learning projects and research a variety of different workplaces related to the domains listed above, which connect with their needs, interests and career focus

ASSESSED TASKS

- An A3 portfolio of evidence containing the student's own work must be submitted. It should demonstrate successful completion of the learning outcomes
- This portfolio of evidence can include teacher observation, logbooks, student self-assessment video/radio broadcasts, reflective journals, action plans/timetables, oral presentations, photographs of project, PowerPoint presentations, written material, and newspaper articles of the student's achievement
- Active participation in all set tasks is a strict requirement

VCAL

PERSONAL DEVELOPMENT SKILLS

This subject consists of two units and runs all year.

SUBJECT DESCRIPTION

The purpose of this subject is to develop skills, knowledge and attitudes that lead toward; social responsibility, building community and civic responsibility through volunteerism and working for the benefits of others, improved self-confidence and self-esteem and valuing civic participation in a democratic society.

Learning programs selected and developed for students who undertake personal development skills are consistent with the following;

- Developing planning and organisational skills in relation to project management
- Building competence and resilience in individuals
- Working as team members and developing communication and group cohesion skills
- Civil and civic participation, and promoting active citizenship
- Researching and analysing environmental, social and cultural issues
- Partnership approaches to external programs that link young people with the broader community and its members
- Voluntary commitment to the program

KEY SKILLS DEVELOPED

Personal Development Skills is delivered at three levels:

- Foundation
- Intermediate
- Senior

As students progress through the three levels of VCAL they are required to work with increasing levels of independence.

LEARNING OUTCOMES

- VCAL students complete innovative hands on learning projects related to the domains listed above which connect with their needs and community interest

ASSESSED TASKS

- An A3 portfolio of evidence produced by the student, with their own work, must be submitted. It should demonstrate successful completion of learning outcomes
- This portfolio of evidence can include teacher observation, logbooks, student self-assessment, video/radio broadcasts, reflective journals, action plans/timetables, oral presentation, written material, and newspaper articles of the student's achievement
- Active participation in all set tasks is a strict requirement

VCAL

SKILLS FOR FURTHER STUDY

This subject consists of one unit and runs all year.

SUBJECT DESCRIPTION

The purpose of this unit is to enable students to develop knowledge and skills for further study that will prepare and assist them to pursue diverse and higher level education and training pathways in a range of settings.

The unit focuses on developing:

- Time management skills
- Strategies for learning
- Research skills
- Pathway plans
- Portfolios and applications

LEARNING OUTCOMES

- VCAL students explore tools to improve their study and research skills, implement strategies for learning, discover pathway plans and develop a portfolio

KEY SKILLS DEVELOPED

- Basic literacy skills are required for VCAL. The Skills for Further Study unit is a single unit at the senior level of the VCAL

ASSESSED TASKS

- The evidence for Skills for Further Study consists of three workbooks that cover all outcomes
- The evidence for this subject can include teacher observation, logbooks, student self-assessment, interviews, reflective journals, action plans/timetables, oral presentations, written material, and pathway plans
- Active participation in all set tasks is a strict requirement

Specialist

Special Needs & Disabilities

PROGRAMS FOR STUDENTS WITH DISABILITIES CELEBRATING SUCCESS

CELEBRATION ASSEMBLIES

- Certificates for Achievement, Citizenship and Sport
- Year 12 or equivalent celebration

EXCURSIONS & CAMPS

- Options may include:
- Local excursions
- Day trips to regional locations
- Challenge and team building activities
- Interschool sports
- Regional school camps

ALLIED THERAPIES

- Physiotherapy
- Speech Therapy
- Occupational Therapy

RECREATION & LEISURE

- Options may include:
- Arts program
- Horse riding
- Gardening
- Swimming
- MEC House sporting events
- Music
- Bike riding
- Walking
- Games
- Opportunities for representative sport

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WORK RELATED

- Work Experience program
- Supervised work
- Voluntary work
- Visits to workplaces
- Writing a resume and job applications
- First Aid
- Information on post school options

ACADEMIC STUDIES

- Individual Education Plans reviewed each term with goals developed from the Victorian Curriculum
- Regular Student Support Group meetings to discuss progress and refine learning goals
- Foundation VCAL certificate studies available
- Year 10 students have the opportunity to complete VCAL in our own setting

Specialist

Special Needs & Disabilities

ALTERNATE PROGRAMS FOR STUDENTS WITH SPECIAL NEEDS & DISABILITIES

It should be noted the VCE units can be studied over twelve months (two semesters), instead of six months (one semester), VETiS units are not limited to one semester length, and VCAL may be studied over three years.

SUBJECT DESCRIPTION

Within the framework of a Program Support Group, students with a special need or disability will be assisted in the development and monitoring of a course of studies, which will be appropriate to their needs. It will be planned to provide them with pathways into post-school options. Services of specialists, such as the Visiting Teacher Service, will continue.

OPTIONS AVAILABLE FOR LATER YEARS STUDENTS

The emphasis in this setting is on individual programs. The goal is always to develop learning plans that enable the student to become as independent as possible as they approach their final years of schooling, and plan for their future beyond school.

Students can participate in a full program within the Specialist Setting or part mainstream/part Specialist Setting, including VETiS subjects. If applicable, students are encouraged to study for the Victorian Certificate of Applied Learning (VCAL).

INDEPENDENT LIVING SKILLS

- Individual Education Plan developed in consultation with student and family
- Health education, including sex education, drug awareness and personal health
- Leadership roles and social skill development
- Travel training
- Work experience

LITERACY & COMMUNICATION

- Speaking and listening
- Reading
- Writing
- Alternative and augmentative communication, including use of electronic communication devices and sign language
- Access to Library facilities
- Awareness of social issues

NUMERACY

- Money and financial maths, including budgeting and shopping
- Time
- Location
- Shape and Design
- Reading bus/train timetables
- Measurement including cooking skill

Target Careers

There are great resources available online for exploring different career and pathway options

– check out the school's Careers & Pathways page to see all of these:

<https://eduvic.sharepoint.com/sites/CareersPathways>

The VTAC Careers Career Targets

More subjects available through the site, plus descriptions of each Career:

www.careershub.vtac.edu.au/career-targets



KLA Maps

Pathway overview

Arts map for 2021

Year 9	Year 10		Year 11	Year 12
Inquiry subjects (to be advertised in Term 4)		VET pathway	VET Certificate III in Music Industry (Sound Production)	VET Certificate III in Music Industry (Sound Production)
	Art Media [^] VCD	VCE pathway	Drama Unit 1&2 Media Unit 1&2 VCD Unit 1&2 Studio Arts 1&2	Drama Unit 3&4 Media Unit 3&4 VCD Unit 3&4 Studio Arts 3&4
Music through instrumental lessons and MEC band				

Interested Year 10s to accelerate.

English map for 2021

Year 9	Year 10		Year 11	Year 12
Year 9 English	English	VCE Pathway	English	English
	Literacy	VCAL Pathway	VCAL Literacy	VCAL Literacy

Humanities map for 2021

	Year 9	Year 10	Year 11	Year 12
History Business Legal	2021 SUBJECTS Crime, Punishment & the Law Faith and Fortune Rise of the Machines		Twentieth Century History Legal Studies Business Management	Ancient History Legal Studies Business Management
	2022 SUBJECTS Crime, Punishment & the Law Power and the People The World at War			
	*Students are advised to complete two electives before selecting a Unit 1 subject			
One semester of Hums compulsory in both Year 9 & 10 mainstream programs				

Languages map for 2021

Year 9	Year 10	VCE
Year 9 Indonesian	Certificate II in Applied Language	VCE Indonesian [^]

KLA Maps

Pathway overview

Mathematics map for 2021

Pathway	Year 9	Year 10	Year 11	Year 12
Foundation VCAL and/or employment	Supporting Mathematics	Everyday Mathematics	Foundation Mathematics	Foundation (ctd) OR No Mathematics
General Applied pathway	Standard Mathematics	Continuing Mathematics	General Mathematics	Further Mathematics
Methods University Math pathway	Extending Mathematics	Pre-VCE Mathematics	Mathematical Methods	Mathematical Methods
Specialist Engineering applications			*Specialist Mathematics	*Specialist Mathematics

*Specialist Mathematics remains by Virtual Learning only

PE/Health map for 2021

	Year 9	Year 10	Year 11	Year 12
PE/Health/Other	PE/Health (compulsory)	VET Sport & Rec* Outdoor & Environment Education	Physical Education	Physical Education
	PE Elective Sports Coaching Health Elective		Health & HD	Health & HD
			VET Sport & Rec	VET Sport & Rec

*VET Sport & Rec may be started in Year 10 if suitable

Science map for 2021

	Year 9	Year 10	Year 11	Year 12
Employment/TAFE	Essential Science (compulsory)	Core Science (compulsory)		
	Forensic Science Home Science OR How Things Work			
University		Pre-VCE Science (compulsory for VCE pathway)	Biology Chemistry Psychology Physics*	Biology Chemistry Psychology Physics*
One semester of Science compulsory in both Year 9 & 10 mainstream programs				

*Physics remains by Virtual Learning only.

KLA Maps

Pathway overview

Technology map for 2021

Year 9	Year 10		Year 11	Year 12
Inquiry subjects (to be advertised in Term 4)	Pre-VCE Food Studies VETiS Certificate*	VCE Pathway	Food Studies 1&2 Systems Engineering Unit 1&2	Food Studies 3&4 Systems Engineering Units 3&4
	Woodwork Food & Beverage S1 Food & Beverage S2 Automotive Digital Technologies Engineering	VET Pathway	VET Certificate II Salon Assistant VET Certificate II in Hospitality (Kitchen Operations) VET Certificate II in Automotive Vocational Preparation VET Certificate II in Building & Construction	VET Certificate II Salon Assistant VET Certificate II in Hospitality (Kitchen Operations) VET Certificate II in Automotive Vocational Preparation VET Certificate II in Building & Construction
Students are recommended to complete a Year 9/10 elective before entering a VETiS pathway				

*Year 10 students can access VET subjects with permission

VCAL map for 2021

Year 10	Year 11	Year 12
Year 10 Everyday Maths	Unit 1&2 Foundation Mathematics	Continue Unit 1&2 Foundation Mathematics OR Skills for Further Study
*Literacy	VCAL Literacy	VCAL Literacy
WRS	PDS	PDS
	WRS	WRS
^May start VETiS Pathway	Compulsory VETiS subject	Compulsory VETiS subject

^with permission

Glossary

<i>Areas of study</i>	A specific focus or area of study within a unit.
<i>Assessment</i>	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.
<i>Assessment of Levels Achievement</i>	The student's "level of achievement" in Units 3&4 will be determined by of school-assessed coursework and an end-of-year examination. School-based coursework for both Unit 3 and Unit 4 will each contribute up to 25% to the final assessment. The end-of-year examination(s) will contribute up to 70% towards the final assessment. This will vary according to the study undertaken, to determine the final score out of 100. Units 1&2 will include similar assessment processes as preparation for Units 3&4.
<i>ATAR</i>	This is calculated by the Victorian Tertiary Admissions Centre (VTAC) as a score out of 100. It is based on the student's Level of Achievement, in their best four Unit 3&4 studies (including an English), plus 10% of their fifth and sixth Unit 3&4 studies. It is used as the basis for tertiary entrance.
<i>Authentication</i>	Is the process set by the VCAA to ensure that all the work you submit is genuinely your own work.
<i>GAT</i>	General Achievement Test. All students undertaking a Unit 3&4 study and students undertaking a VETiS scored assessment are required to complete the three hour test as part of the mid-year examination cycle. The result is recorded with the VCE / VETiS / VCAL results in December, but does not count in students' ATAR.
<i>Head Start Program</i>	Head Start allows students to incorporate the commencement of an apprenticeship or traineeship with their school studies. Head Start students spend more time doing paid, on-the-job training while completing their VCE or VCAL at school. The program helps students to develop skills and experience that employer's value. Head Start helps students to get the best start in their career.
<i>Outcome</i>	Each unit deals with specific content and is designed to enable students to achieve a set of outcomes. Each outcome is described in terms of the key knowledge and skills students are required to demonstrate. In order to satisfactorily complete a unit, a student must successfully complete all of the set outcomes, Outcomes are assessed as either Satisfactory (S) or Not Satisfactory (N).
<i>Pathway</i>	A "Pathway" refers to a suggested package of units to help students in constructing their own VCE/VCAL/VETiS Program. The aim is to assist students with future vocational interests and tertiary study options beyond secondary school.
<i>Prerequisite Studies</i>	These are nominated by individual course authorities as studies which must be satisfactorily completed by all applicants seeking admission to that course. Applicants who do not meet this condition may not be considered for selection.

Glossary

Prerequisite Studies (Cont'd)

Most courses offer a choice from a number of prerequisite studies. You should check requirements carefully, referring to VTAC Guides such as “Tertiary Entrance Requirements”. You should also consult the Careers Teacher or a member of the Later Years Team. Entry into tertiary courses requires the satisfactory completion of the VCE.

SBAT

School Based Apprenticeship/Traineeship. This program enables students to undertake part time Apprenticeship positions or Traineeships over a three-year period while they are completing their VCE or VCAL.

Sequence

Two units at level 3&4 in the same study; for example; Literature 3&4. All Unit 3&4 studies must be taken as a sequence. For example you must do Unit 3&4 of Business Management. You cannot do Unit 3 Business Management only and then only do Unit 4 Economics. Unit 1&2 studies do not need to be taken as a sequence.

Special Provisions

Where students have a disability, have been ill, or if personal circumstances have affected their work to a significant degree during any semester of VCE Studies, they may be eligible to have this taken into consideration. Students must formally notify the school if they wish to apply.

Study

Most VCE studies are made up of four units.

Study Design

The “Study Design” describes the units available and prescribes the rationale, Areas of Study, Outcomes (or Work Requirements) and Assessment Tasks.

Unit

A self-contained study of a semester’s length.

VCAL

Victorian Certificate of Applied Learning.

VCE

Victorian Certificate of Education.

VCAA

Victorian Curriculum and Assessment Authority; provides high quality curriculum, assessment and reporting that enables individual lifelong learning.

VETiS

Vocational Education and Training in School units.

VTAC

The Victorian Tertiary Admissions Centre (VTAC) is the central office that administers the application and offer process for places in tertiary courses at university, TAFE and independent tertiary colleges in Victoria (and a few outside Victoria). VTAC receives and forwards application information and supporting documentation to the course selection authorities at institutions.

Calculators

Mathematics

MEC has a limited number of scientific and CAS calculators, which can only be used in class or Private Study (they cannot be loaned to students to take home). Therefore, students are expected to purchase their own (many will already have a scientific calculator). Please consult the following table to find out what type of calculator will be needed.

Year Level	Mathematics Class	Scientific calculator 1 (approx. \$18 - \$40)	TI-nspire CX CAS calculator 2 (approx. \$220 new)
9	Supporting Mathematics	✓	x
	Standard Mathematics		
	Extending Mathematics		
10	Everyday Mathematics	✓	x
	Continuing Mathematics		
	Pre-VCE Mathematics	✓	recommended
11	Foundation Mathematics	✓	x
	General Mathematics Further		
	Mathematical Methods Specialist Mathematics		
12	Foundation Mathematics (VCAL)	✓	x
	Further Mathematics		
	Mathematical Methods Specialist Mathematics		

1: The scientific calculator must display fractions appropriately and have a two-line display.

2: The CAS calculator must be a Texas Instruments TI-nspire CX® series, **try to get a second-hand one (between \$80 and \$180), before buying one new.**

* CAS graphing calculators can be provided through State Schools Relief. Applications can be made through Student Services at MEC. Please contact a coordinator or Student Services for more details

Humanities Subject

Rotation 2021/2022

Humanities at Year 9 and 10 covers the range of subjects – History, Geography, Economics & Business and Civics and Citizenship. All subjects offered are electives, run for one semester and are offered in a two year rotation. It is compulsory to complete a minimum of one Humanities subject per year. More than one Humanities subject may be selected, if desired.

Year 9/10 Humanities 2021	Year 9/10 Humanities 2022
Crime , Punishment and the Law (Civics and Citizenship)	Crime , Punishment and the Law (Civics and Citizenship)
Faith and Fortune (History, Civics and Citizenship, Geography)	Power and the People (History, Geography, Economics)
Rise of the Machine (History)	The World at War (History)

Planner

Pathway (refer to MEC structured Learning Area maps)

Semester 1 – Add your pathway subject in the space below each block

Block	A	B	C	D	E
Year 9 subject					
Year 10 subject					
VCE/VET subject					
VCAL program (must do 1 VET)					

Semester 2 – Add your pathway subject in the space below each block

Block	A	B	C	D	E
Year 9 subject					
Year 10 subject					
VCE/VET subject					
VCAL program (must do 1 VET)					

Planner

Four year overview

Course Planner – Later Years

NAME _____

	eg ENGLISH	eg Maths	HUMS/SCI/CHOICE	VCE / VET SUBJECT	CHOICE OF SUBJECT	CHOICE OF SUBJECT
YEAR 9	ENGLISH	9 MATHS				PE/HEALTH/ELECTIVE
YEAR 10	ENGLISH or LITERACY	10 MATHS				
YEAR 12	ENGLISH 1/2 or VCAL LITERACY					
	ENGLISH or VCAL LITERACY 3/4					
Comments						



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