



# VILLANOVA COLLEGE

## SENIOR STUDIES GUIDE

# GLOSSARY OF TERMS

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|                                       |   |
|---------------------------------------|---|
| <b>Applied Syllabuses</b>             | Subjects that have a state-wide syllabus and which are recognised as suitable study options for students who are interested in pathways beyond school that lead primarily to VET or work. A result in one (1) Applied subject may contribute to an ATAR. Results will also appear on a student's Statement of Results, which is part of the SEP.                |
| <b>ATAR</b>                           | Australian Tertiary Admission Rank.   |
| <b>Banking Achievements</b>           | The process of adding learning achievements to a student's Learning Account.  |
| <b>Compulsory Participation Phase</b> | The legislated requirement for young people to participate in education or training. This period is for a further two (2) years beyond Year 10, or until they have gained a QCE or Certificate III qualification, or until they have turned 17.   |
| <b>Credit</b>                         | A defined and assessable quantity of learning at the set standard that is the minimum achievement that can contribute to the QCE. The set standard includes a satisfactory completion, a grade of C or better, qualification completion or a pass (or equivalent).  |
| <b>External examinations</b>          | External examinations are summative and add evidence of achievement to a student's profile. External examinations are common to all school administered by schools under the same conditions at the same and on the same day and developed and marked by the QCAA according to a commonly applied marking scheme.   |
| <b>General Syllabuses</b>             | Subjects that have state-wide syllabus and which are recognised for entrance to tertiary courses. They include General and Extension subjects. Results contribute to an ATAR and will also appear on a student's Statement of Results, which is part of the SEP.  |
| <b>Internal assessment</b>            | Schools develop three (3) internal assessments for each senior subject to reflect the requirements described in Unit 3 and 4 of each General subject.   |
| <b>IP</b>                             | Industry Pathway.   |
| <b>Learning Account</b>               | A record of all learning achievements banked with the QCAA during the Senior Phase of Learning.   |
| <b>QCAA</b>                           | Queensland Curriculum and Assessment Authority.   |
| <b>QCE</b>                            | Queensland Certificate of Education. The QCE is Queensland's senior school qualification, which is awarded to eligible students, usually at the end of Year 12. The QCE recognises broad learning options and offers flexibility in what, where and when learning occurs.   |
| <b>QCIA</b>                           | Queensland Certificate of Individual Achievement.   |
| <b>QTAC</b>                           | Queensland Tertiary Admission Centre.   |
| <b>Recorded Subjects</b>              | These subjects can be recorded on the QCE. They do not contribute towards an ATAR. They include certificates offered through outside providers. Other subjects that students study privately, such as AMEB Music, can have results recorded on the QCE under certain conditions.  |
| <b>Senior Statement</b>               | A transcript of the learning account for all students completing Year 12 at a Queensland School. The Senior Statement shows all studies and the results achieved that may contribute to the award of a QCE or Tertiary Entrance Statement. If a student has a Senior Statement, then they have satisfied the completion requirements for Year 12 in Queensland. |
| <b>SEP</b>                            | Senior Education Profile. The QCAA issues students in Queensland with an SEP upon completion of senior secondary schooling. This profile may include a Statement of Results, a QCE or QCIA.   |
| <b>SCIPS</b>                          | School Community Industry Placement Service.  |
| <b>Syllabuses</b>                     | A category in which different types of subjects fall. These included General, Applied, Senior External Examinations and Short Courses.  |
| <b>VET</b>                            | Vocational Education and Training.  |

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The details about the various courses on offer contained in this Guide to Senior Studies were correct at the time of publication but may change from time to time as necessary to respond appropriately to student needs and Villanova College's response to the Queensland Curriculum requirements.

# ENROLMENT PROCEDURES

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## Entering Year 11

Entry into Year 11 is made by completing the Senior Education and Training (SET) Plan. On the basis of choices made by students, the timetable for the next two (2) years will be created in such a way as to maximise the degree to which students' preferences can be satisfied. For some students, it may not be possible to accommodate their particular subject combination, despite the best efforts to do so. Students in this category will be required to re-consider their academic program. Once established, two (2) year subject programs of current Year 11 students continuing into Year 12 are preserved.

## Review of Academic Performance

A formal review of each Year 10 student's academic performance and behavioural record will be conducted by the College at the end of Semester 1, and again when Semester 2 Reports are available. Where Villanova College has serious concerns regarding a particular student's academic performance and commitment to study, the student may be required to participate in a review of his progress in his current studies and may also be required to show cause why he should commence or continue Senior study the following year.

For a student seeking to enter Year 11, performance in his academic program of Study in the previous year is of great interest to Villanova College in determining if particular subjects, or a subject combination, are appropriate for the student to take. Continuing into the third and fourth units (Year 12) of a course commenced in Year 11 should be considered conditional upon satisfactory application and/or behaviour in the two units in Year 11.

Where the student has selected an academic program which, in the opinion of Villanova College, is inadvisable on the basis of previous results achieved, he will be required to reconsider his subject choices.

Villanova College accepts enrolments conditionally on the applicant agreeing to the following:

- it is the responsibility of Villanova College to provide a learning environment of the highest possible standard;
- it is the responsibility of each student to be committed to his own learning and personal development and religious growth and that of every other student;
- it is the responsibility of each student to contribute to the ethos of College life by his commitment to good order, adherence to dress standards, contribution to the neatness and maintenance of College facilities, participation in College affairs and concern for the personal welfare of all people at Villanova College;
- it is the responsibility of each student to contribute to College life by active participation in College assemblies and functions, such as religious services, sporting affairs, Student Council functions, the Senior Retreat and vocational guidance events;
- it is the responsibility of Villanova College to provide an appeals process by which students may appeal a grade for a given assessment item.

## Prerequisite Requirements and Subject Selection Rules

Prerequisite requirements are subject results that, in the opinion of Villanova College, need to be attained before a student can expect success in a future subject. Prerequisite requirements for subjects are outlined in the subject descriptions later in this book.

A student, who does not meet a prerequisite requirement for a subject he wishes to take, will need to choose a more appropriate subject.

He may decide to:

- change his subject selection to remove the particular subject,
- ensure that he meets the prerequisite in Semester 2.

A student who does not meet the prerequisite requirements for the subjects he wishes to take in Year 11 will not be able to study the subject.

Students whose selections contravene subject selection rules must re-choose unless a specific exemption is granted in their case by the Dean of Teaching and Learning.

# SENIOR STUDIES

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Villanova College is an independent Catholic boys school conducted by the Order of St Augustine, which provides Senior courses for full-time students. Students are able to select from a wide range of traditional and modern subject areas to create an individual program of study that best serves their needs and aspirations. Villanova College has a long tradition of academic excellence in which the needs of the individual student are the central focus of the learning process.

Villanova College believes that all true education involves the building of community amongst students and teachers. It believes that the educational and training endeavours of a school include a practice of community living and friendship-building which includes participation in community affairs and commitment to the varied learnings which take place in the life of the community.

Villanova College places great importance upon the success of each and every student, and also upon its commitment to justice for all members of its Community. It is from these two espoused values that much of the curriculum and teaching and learning policy of Villanova College flows. Both values have a direct impact on the areas of student work (both in class and at home) and assessment.

It is the College's conviction that educational success results from a partnership between teachers, parents and students.

The course offerings shown in this handbook are prospective in that the actual availability of courses in any particular year will be subject to demand and the capacity of Villanova College to run the course.

## Classwork, Homework and Home Study

Each course of study at the College operates according to a well-designed, organised and monitored plan. In the course the teacher has planned the work to be achieved during each class period, the knowledge and skills to be introduced or developed, and the learning experiences through which these might occur.

It is the clear expectation at Villanova College that students will make the best possible use of the learning experiences provided in their classes in order to achieve success. Behaviour that contributes to the learning intended for the class period is expected of all students.

Students are required to be prepared for class, to be actively involved in classes and classwork, and to contribute to class activities in a productive way. During their time at school, students are encouraged and expected to develop skills in guiding their own learning, and as they get older, they are required to assume greater responsibility for their own education. In fact, an important part of the learning experience planned, is work to be done by the student at home.

It is important that before the next class in any subject, students will complete all work assigned by their teacher, and will also undertake some ongoing study and revision of the material covered in the subject as part of an overall plan of preparation for later assessment.

Given these expectations, it is clear that students are required to make a substantial commitment to their schoolwork outside of school hours. This may need to be a factor in students and their parents making decisions about extensive part-time employment. Villanova College supports boys in their primary occupation as students and asks that parents reinforce this message at home. The following would be a guide to the minimum time an average student would need to devote to his homework and study during a typical week:

- Year 11** — 2½ hours five times per week,
- Year 12** — 3 hours five times per week.

Students would need to recognise, however, that few weeks are "typical" weeks and that doing the bare minimum is insufficient for maximum success.

# ASSESSMENT PROGRAMS

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Assessment is an integral part of the ongoing development of student knowledge and skills in any course of study at Villanova. Assessment in a course of study is not simply completed at the end in order to be able to complete reports. A well-designed course of study has, as one of its fundamental learning experiences, an integrated program of assessment which enables students and teachers to be informed and to modify programs as necessary throughout the learning process. The timing of assessment throughout the year is made on educational considerations and cannot be varied without affecting the quality and validity of the assessment program.

In order to assist them in planning, all students receive, in the first few weeks of each semester, an assessment calendar which outlines the due dates for all major assessment items in their subjects for that semester. This is accessed through the 'Student Cafe'. Prior to the mid-semester examination block and prior to the end-semester examination block, all students receive an examination timetable for that period electronically. Information regarding assessment is also available through 'Parent Lounge'.

Students are required to participate genuinely in the assessment programs in their courses of study at the time that they are scheduled to occur. This is done by preparing adequately for assessment items and by completing them on time, and to a standard which represents their best efforts.

Due to the planned, sequential nature of all courses of study, students should only be absent from school on any day with legitimate reason. Absence on days that assessment is due or conducted should only be on medical or other serious grounds.

***A Medical Certificate is required to explain absence on days when assessment is due or conducted. Students should avoid absences on the days leading up to assessment, in order to prepare or complete items.***

# STUDENT EDUCATION PROFILE

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**Students taking Senior courses at Villanova College are eligible to receive the following documents at the completion of their Senior Studies:**

## **The Senior Statement**

The Senior Statement is issued by the Queensland Curriculum and Assessment Authority and it shows the results achieved in all learning banked in a student's learning account. This includes all General, Applied and Certificate subjects. Certain AMEB and external subject results are also recorded on the Senior Statement if they have been registered with QCAA by the outside education provider.

The Senior Statement is a summary of all courses undertaken and the results achieved during the Senior Phase of Learning.

## **The Queensland Certificate of Education**

The QCAA issues the QCE to eligible students when they have accrued the set amount of learning, at the set standard, in a set pattern, while meeting literacy and numeracy requirements.

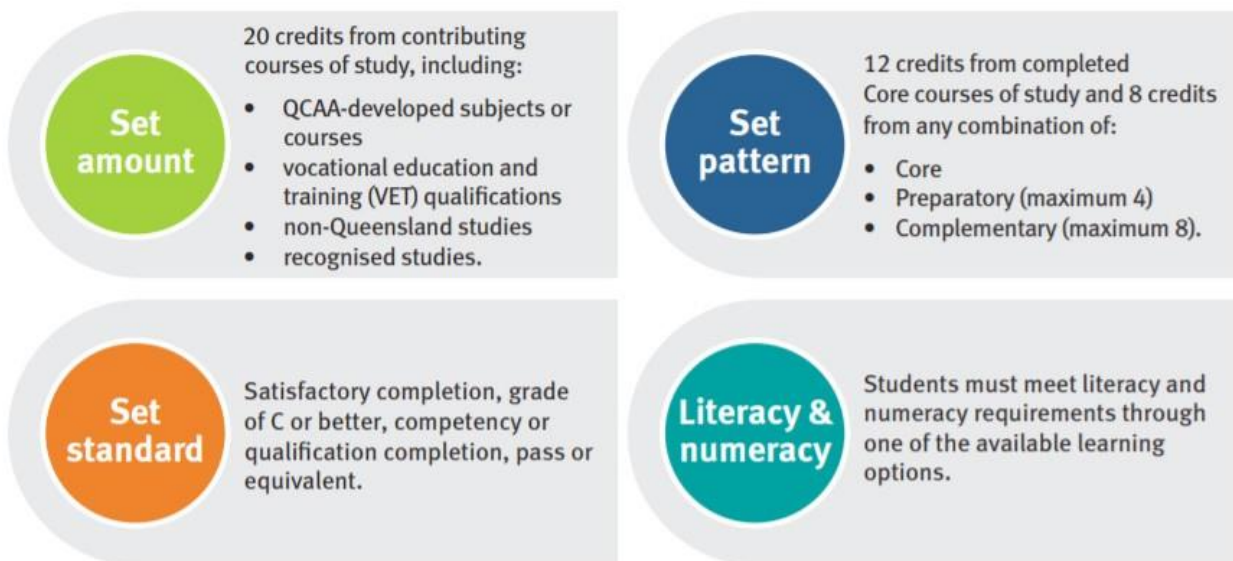
To be eligible for a QCE, a student must:

- have an open learning account
- not have been previously issued with a QCE, senior certificate, or equivalent interstate or overseas qualification (other than an International Baccalaureate Diploma Programme)
- accrue one credit from the Core category of learning while enrolled at a school.

A student must also accrue learning:

- to the set amount
- at the set standard
- in a set pattern
- that meets the literacy and numeracy requirements

The set amount of learning is measured in credits. Credits are recorded in a student's learning account when the set standard for learning has been met. A range of courses of study may contribute to the issue of a QCE. Learning options are classified as Core, Preparatory and Complementary courses of study. The diagram below shows how a student needs to accrue learning credits to be eligible for a QCE.



# PATHWAY OPTIONS

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## **ATAR Eligible**

This section applies to students contemplating tertiary studies at a university after they complete Year 12.

### **Step 1:** Make yourself eligible for university entrance

Students do this by selecting subjects that qualify them for an ATAR. An ATAR is a measure of overall academic achievement at school. It allows comparisons to be made between all students in the State, with students receiving an ATAR from 99.95 (the highest) to approximately 35.00. To be eligible for an ATAR, you must choose to study at least four (4) General subjects.

### **Step 2:** Become eligible for the course of your choice

The particular General subjects selected should fulfil a number of requirements.

The student should consult the QTAC Prerequisite Subject Guide or MyPath to ascertain if the tertiary course of interest has any subjects that **MUST** be studied at school. If so, these must be included in the selection of subjects.

### **Step 3:** Achieve highly at school

In each subject studied at school, students should strive to achieve as highly as possible:

These results are obtained by working through the QCAA-accredited syllabuses in each subject and then measuring achievements on examinations, assignments and other assessments against the criteria detailed in the program. Three (3) internal assessment tasks and one (1) external examination will contribute to a student's level of achievement, and eventually their ATAR.

### **Step 4:** Apply for entry to the course of your choice

Students apply to QTAC for places in tertiary courses in Queensland and at times, across Australia. Students lodge their QTAC preferences directly on line via the web. This electronic lodgement allows students to change or update their preferences more often and more easily than was previously possible. At the time of lodgement, students will not know their ATAR or Levels of Achievement in their subjects. However, they are able to change their preferences for a short period after this information becomes available in December of their Year 12 year. Therefore, it is not necessary for a student to guess their possible ATAR to decide on a course, as they can change their course choices with QTAC after receiving their ATAR and before the first round offers for places are sent out to students.

### **Step 5:** Certification - the SEP (Student Education Profile).

After students have finished Year 12, they should receive (usually, shortly before Christmas) their SEP. This is prepared by the Queensland Curriculum and Assessment Authority. The Statement of Results will contain:

- the names of the General and Applied subjects studied
- the number of semesters for which each subject has been studied
- the Exit Level of Achievement in each subject (A - E)
- the names of any nationally recognised Certificates attained and/or units of competencies achieved



# PATHWAY OPTIONS

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## ***To gain admission to University courses***

Several factors decide whether or not students are accepted into particular courses at university:

- Prerequisite subjects must be met. Each course will stipulate certain General subjects (and perhaps minimum achievement levels), which must be taken in Years 11 and 12 if students are to be considered for admission to that course.
- Students must have a sufficiently high ATAR to be included in the quota for that course.
- Finally, other information may be considered, such as
  - school references
  - reports
  - interviews
  - folios
  - auditions

## ***The Industry Pathway***

Students may opt to undertake an IP course that involves subjects, certificate courses, school-based apprenticeships or traineeships (SATs) with a clear industry focus. The aim of these is to gain skills and qualifications that prepare the student for the workplace and are recognised in industry. By doing a SAT, a student will work towards a vocational qualification recognised by industry that counts towards their QCE. They will also earn a wage while training on the job, gaining new skills, learning about workplaces and developing the confidence and skills they have learnt at school in a real work environment.

Industry Pathway students can also enrol in external Diploma and Certificate courses through the various TAFE campuses in the Brisbane region.

Students following this pathway can complete up to three (3) General subjects.

Should a student choose not to receive an ATAR, they would still receive their QCE containing their subjects (General, Applied and Certificate subjects) and their Exit Levels of Achievement, provided they have banked enough credits.

## ***Industry Placement***

Students undertaking an Industry Pathway (i.e. studying less than four (4) General subjects) are encouraged to undertake regular industry placements in their chosen industry. This choice supports their fields of study or can be in an alternative industry of interest.

Industry placements are arranged through the Pathways Program Leader and are sometimes coordinated with the help of the School Community Industry Partnership Service (SCIPS). Students not in the Industry Pathway can nominate to attain Industry Placement during school holiday periods. The Pathways Program Leader can assist with this process.

## ***Vocational Education and Training***

Villanova College offers Vocational Education and Training courses that provide numerous pathways into training and include a greater emphasis upon workforce. While undertaking their Year 11 and 12 studies, students gain credit towards a nationally recognised certificate (e.g. Certificate III in Business), which allows them to take up further study at a TAFE College or to move more easily into the workforce on completion of Year 12.

Students select courses that enable them to concentrate on industry-specific areas such as AutoCAD, Fitness, Hospitality or Furnishing. The Vocational Education Program provides students with entry-level training and qualifications that are industry endorsed. All competencies achieved are Nationally Accredited and are recognised under the Australian Qualifications Framework.

Subjects within the Vocational Educational Program include some Applied subjects and some Certificate courses. In most cases, greater emphasis is placed on achieving outcomes, and assessment is competency-based and in some cases, criteria-based. The student is considered to be 'competent' or 'not yet competent' and can be reassessed for the same outcome at a future date. These courses provide more flexibility for students to achieve competency at their own pace. To find out more, look at the course description of these subjects in this handbook.

Please note that a Certificate III (or higher) can contribute to a student obtaining an ATAR.

# ACADEMIC COACHING PROGRAM (ACP)

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## ***Aim of the ACP***

The Academic Coaching Program (ACP) is an opportunity for all Year 11 and Year 12 students to develop their study skills and habits across four (4) periods per week, under the guidance of an academic coach. Students who undertake an ACP only enrol in six (6) subjects in any one year. The QCAA recommends this as an appropriate number of subjects to study in Years 11 and 12.

The aim of the program is to allow and support students to plan out their work and study in a way which promotes independence and autonomy in their approach to learning.

## ***Structure of an ACP***

It is possible that a particular student's ACP could include some or all of the following at various times throughout the year:

- accessing the library facility for private, individual study and research.
- accessing specialist support teachers, counsellors and music tuition.
- working in groups on various tasks.
- meeting with their academic coach to plan out their use of the time and opportunity available, and to discuss their academic progress.

## ***Accountability and Provisions***

To benefit from undertaking an ACP, a student needs to be willing to accept responsibility for his own learning. Because the student is required, for some part of his week, to work independently of constant teacher supervision, he needs to accept the conditions set down by the College for the use of this time.

# SUBJECT SELECTION RULES

## Full-time Students

A usual program of study for student in Years 11 and 12 consists of subjects of four (4) units in duration, generally studied over two (2) years.

Students are required to take as their Core Studies the subjects of Study of Religion or Religion and Ethics, and either Essential English, English or Literature, and one of Essential Mathematics, General Mathematics or Mathematics Methods.

|             |  | SUBJECTS  |   |
|-------------|--|---|---|
| CORE        | Essential English (Applied Subject)                  | Essential Mathematics (Applied Subject)   | Study of Religion (General Subject)                       |
|             | English (General Subject)                            | General Mathematics (General Subject)   | Religion and Ethics (Applied Subject)                     |
| GENERAL     | Literature (General Subject)                         | Mathematics Methods (General Subject)   | Religion and Ethics - Flexible delivery (Applied Subject) |
|             | *English as an Additional Language (General Subject) |   |   |
| GENERAL     | Accounting   | Drama   | Music   |
|             | Biology  | Earth and Environmental Sciences  | Music Extension (Year 12 only)                            |
| GENERAL     | Business   | Economics   | Physical Education  |
|             | Chemistry  | Engineering   | Physics   |
| GENERAL     | Chinese  | Geography   | Specialist Mathematics                                    |
|             | Design   | Italian   | Visual Art  |
| GENERAL     | Digital Solutions                                    | Legal   |   |
|             |  | Studies   |   |
| GENERAL     |  | Literature  |   |
|             |  | Modern History  |   |
| APPLIED     | Hospitality Practices                                |   |   |
|             |  |   |   |
| VET COURSES | Business - (Certificate III in Business BSB30115)    | Furnishing - (Certificate I in Furnishing MSF10113)   |   |
|             | Fitness - (Certificate III in Fitness SIS30315)      | Information, Digital and Media - (Certificate III in Information, Digital and Media (ICA30115)) |   |

\*English as an Additional Language may be studied after consultation with the Dean of Teaching and Learning.

# HOW TO CHOOSE SUBJECTS

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The purpose of this guide is to ensure that the subject choices made are the right ones for each student. You must take responsibility for the direction of your education. There are a number of factors to be considered before any decisions can be made:

| <i>1 Your ability, interests and talents</i>  | <i>2 Value of a course for your personal goals</i>   | <i>3 Vocational Interests</i>  |
|---|--|--|
| <p>Your academic performance up until now is a good indication of your academic ability and must be considered. However, there are interests and talents you use every day which, when taken together with academic ability, can lead to an honest and realistic decision about future study options.</p> | <p>Education is a process of personal growth. It should not be solely limited to a career-oriented means to an end. At the same time, you need to have some plan as to where you wish to be over the course of the next five years, within and beyond Villanova College.</p> <p>In addition, people often benefit from a variety of different types of subjects. If your primary interest is in the humanities area you may also have strong abilities in technological areas and choose to accompany your humanities courses with others in the technological area. Such combinations often help extend the individual's personal abilities rather than limit them.</p> | <p>It is important to realise what vocational opportunities are open to you as a result of your subject selections. If you have a specific vocation in mind, it is essential that you consider the implications of the course selection that you now make.</p> |

The best reason you could have for including a particular subject in your subject package is that you are interested in it, and you will be able to do well in it.

However, just because some subjects are prerequisites for a tertiary course that you might be interested in at some time in the future, does not automatically mean that you will enjoy and do well in these subjects now.

# TYPES OF SUBJECTS

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## ***General Subjects***

General subjects in this guide:

- Accounting
- Biology
- Business
- Chemistry
- Chinese (Mandarin)
- Design
- Digital Solutions
- Drama
- Earth and Environmental Science
- Economics
- Engineering
- English
- English as an Additional Language
- General Mathematics
- Geography
- Italian
- Legal Studies
- Literature
- Mathematics Methods
- Modern History
- Music
- Music Extension
- Physical Education
- Physics
- Specialist Mathematics
- Study of Religion
- Visual Art

## ***Applied Subjects***

Applied subjects in this guide:

- Hospitality Practices
- Religion and Ethics
- Essential English
- Essential Mathematics

## ***Vocational Education and Training (VET) Subjects***

Vocational Education & Training (VET) subjects are complete training packages in which successful completion leads to the award of a VET Certificate, in addition to the other certification students receive. To receive the VET Certificate, students must complete the course and demonstrate competency in each of the required VET modules.

VET subjects in this guide:

- Business (Certificate III in Business BSB30115)
- Fitness (Certificate III in Fitness SIS30315)
- Furnishing - (Certificate I in Furnishing MSF10113)
- Information, Digital and Media (Certificate III in Information, Digital and Media ICA30115)

# SUBJECTS AVAILABLE

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On the pages that follow are descriptions of the subjects on offer. In each subject listing you will find information on:

- what type of subject it is,
- what the course is about,
- what prerequisite study or skills are required for entry,
- what form the assessment in that subject will take, and
- what areas of further study naturally follow from the subject.

Each subject will be represented at the Year 10 Subject Confirmation Evening. More specific information about the subject can also be obtained from the teacher(s) currently teaching the subject, or by consulting the Curriculum Area Leader.

The Curriculum Area Leaders (and subjects in their area) are as follows:

|   |  |
|---|--|
| <b>Creative Arts:</b><br>Ms Sallyanne Freney            | Drama - Music - Music Extension - Visual Art   |
| <b>Business Studies:</b><br>Ms Michelle Smith-Rowan     | Accounting - Business - Business (Certificate III Business BSB30115) - Economics – Hospitality Practices   |
| <b>English:</b><br>Mr Paul Gribben                      | English - Essential English – Literature – English as an Additional Language   |
| <b>Languages Other Than English:</b><br>Mr Paul Schiavo | Chinese (Mandarin) - Italian   |
| <b>Mathematics:</b><br>Mr Brett Morrissey               | Essential Mathematics - General Mathematics - Mathematics Methods – Specialist Mathematics   |
| <b>Physical Education:</b><br>Mr Pat Atkinson           | Physical Education - Cert III in Fitness (Cert III in Fitness SIS30315)  |
| <b>Religious Education:</b><br>Mrs Eleni Greenaway      | Study of Religion - Religion and Ethics  |
| <b>Science:</b><br>Mrs Juanita Jacobs                   | Biology - Chemistry - Physics - Earth and Environmental Science  |
| <b>Social Science:</b><br>Mr Kirk Astill                | Geography - Modern History - Legal Studies   |
| <b>Technologies:</b><br>Mrs Kathy Duncan                | Design - Digital Solutions - Engineering - Furnishing (Cert I in Furnishing MSF10113) - Information, Digital Media and Technology (Cert III in Information, Digital Media and Technology (ICA 30115) |

# DRAMA

## 4-UNIT GENERAL COURSE

### SUMMARY

Drama is a powerful, expressive tool in which students refine their expressive and reflective skills. Drama interrogates the human experience by investigating, communicating and embodying stories, experiences, emotions and ideas that reflect the human experience. It allows students to look to the past with curiosity and explore inherited traditions of artistry to inform their own artistic practice and shape their world as global citizens. Drama is created and performed in diverse spaces, including formal and informal theatre spaces, to achieve a wide range of purposes. Drama engages students in imaginative meaning-making processes and involves them using a range of artistic skills as they make and respond to dramatic works. The range of purposes, contexts and audiences provides students with opportunities to experience, reflect on, understand, communicate, collaborate and appreciate different perspectives of themselves, others and the world in which they live.

### PREREQUISITES

C in Year 10 Drama

### COURSE OUTLINE

**Unit 1:** In Unit 1, students explore the importance of drama as a means to tell stories and share understandings of the human experience in a range of cultures, including those of Aboriginal peoples and Torres Strait Islander peoples, and/or those from the Asia–Pacific region. They will engage with foundational content, skills and processes of drama to develop and share their unique artistic voice and develop an aesthetic awareness.

**Unit 2:** In Unit 2, students explore the power of drama to reflect lived experience. The unit introduces students to the dominant paradigm of drama that embraces notions of truth and authenticity in performance.

**Unit 3:** In Unit 3, students explore how drama can be used to challenge our understanding of humanity over time. Students investigate dramatic styles that are united by social commentary, and that question their world and advocate change. Students explore how dramatic form can be used to express philosophical and political viewpoints in action in society.

**Unit 4:** In Unit 4, students explore inherited theatrical traditions and key dramatic works of the past as a springboard for developing their own artistic statement. They explore influential inherited theatrical traditions that have shaped and informed current dramatic practices in conjunction with emerging dramatic practices that reframe and transform the inherited theatrical styles of Greek Theatre, Elizabethan Theatre or Neoclassicism and their associated texts.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                                      |
|------------------------|--------------------------------------|
| Internal Assessment 1: | Performance (20%)                    |
| Internal Assessment 2: | Project – Dramatic Concept (20%)     |
| Internal Assessment 3: | Project – Practice-led Project (35%) |
| External Assessment:   | Examination (25%)                    |

### FURTHER STUDIES

Drama is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Drama can establish a basis for further education and employment in the field of drama and to broader areas in creative industries and cultural institutions.

The demand for creativity in employees is rising in a world of rapid technological change. As more organisations value work-related creativity and diversity, the processes and practices of Drama develop transferable 21st century skills essential for many areas of employment. As people are asked to think innovatively and differently, unconventionally and from new perspectives, the role of ‘the creative’ across many workplaces is increasingly in demand. Diverse pathways may include fields such as psychology, social work, counselling, law, journalism and human relations.

Tertiary studies, vocational education or work experience in the area of drama can lead to and benefit careers in diverse fields such as:

- arts administration and management, e.g. artist manager, arts administrator, booking agent, copyright/royalties manager, tour manager, venue manager, events and festivals manager/producer, arts and cultural advisor/administrator
- communication, e.g. writer, communication strategist, arts editor, blogger/vlogger
- creative industries, e.g. professional performer, actor, director, dramaturge, independent artist, artistic director, costume designer, producer, rehearsal director, theatre technician, stage manager, dialect coach, radio presenter
- education, e.g. educator in schools, corporate, private studios, community, universities and professional drama company education programs
- public relations, e.g. campaign manager, publicist, creative director
- research, e.g. researcher and academic, journalist/critic
- science and technology, e.g. drama health professional with further specialised training in areas of medicine, health and therapy.

**SUMMARY**

Music is a unique art form and language that allows for personal expression in a variety of different genres. It allows for the expression of the intellect, imagination and emotion and the exploration of values. Music occupies a significant place in everyday life of all cultures and societies, serving social, cultural, celebratory, political and educational roles.

The study of Music combines the development of cognitive, psychomotor and affective domains through making and responding to music. The development of musicianship through making (composition and performance) and responding (musicology) is at the centre of the study of Music. Through composition, students use music elements and concepts, applying their knowledge and understanding of compositional devices to create new music works. Students resolve music ideas to convey meaning and/or emotion to an audience. Through performance, students sing and play music, demonstrating their practical music skills through refining solo and/or ensemble performances. Students realise music ideas through the demonstration and interpretation of music elements and concepts to convey meaning and/or emotion to an audience. In musicology, students explain music elements and concepts, analysing music in a variety of contexts, styles and genres. They evaluate music through the synthesis of analytical information to justify a viewpoint.

**PREREQUISITES**

C in Year 10 Music

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students make and respond to music as they explore music elements and concepts to gain greater familiarity with the way music is designed. Students engage with a variety of repertoire, covering a range of contexts, styles and genres, and develop musicianship through their understanding and use of music elements and concepts. Students develop a greater awareness of the stylistic considerations that inform the music they compose and perform. They develop an understanding of the interrelationships between these elements in the resolution and realisation of cohesive music that communicates meaning.

**Unit 2:** In Unit 2, students make and respond to music that expresses cultural, political and social identities in both local and global contexts. Through the journey of critically considering how music can be used as a powerful form of expression, students explore their own musical identity. At this stage of the course, students consolidate their knowledge from Unit 1 and continue to develop their understanding of the elements of music as they consider, develop and refine their own emerging voice or style as a musician.

**Unit 3:** In this unit, students make and respond to music that demonstrates innovative use of music elements and concepts, and learn about how these ideas are used to communicate new meanings. They study the ways in which music traditions have been challenged, further developed or reconceptualised to represent, reflect and even shape cultural, societal and technological change. Such innovations in musical language and expression have often been prompted by the ways in which music reflects and comments on culture and society. Students examine how music elements and concepts have been used,

manipulated and adapted in the promotion of these new ideas and representations, and the main philosophical ideas that have promoted these changes. The musical styles and genres that reflect innovations extend from Western art music through to jazz, contemporary, and emerging styles promoted by technological developments.

**Unit 4:** In Unit 4, students focus on their emerging voice and style through making and responding to music. They understand that music elements can be manipulated to expressively communicate narrative. The narrative may appear as music alone, or in conjunction with film, video game, or similar. Through the combination of music and narrative, composers can provoke strong emotional responses from audiences. The unit aims to develop a more sophisticated understanding of how music elements have been manipulated for specific storytelling purposes.

**ASSESSMENT (UNITS 3 AND 4)**

|                        |                          |
|------------------------|--------------------------|
| Internal Assessment 1: | Performance (20%)        |
| Internal Assessment 2: | Composition (20%)        |
| Internal Assessment 3: | Integrated Project (35%) |
| External Assessment:   | Examination (25%)        |

**FURTHER STUDIES**

Music is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Music can establish a basis for further education and employment in the fields of arts administration, communication, education, creative industries, public relations and science and technology. The demand for creativity from employees is rising in a world of rapid technological change. As more organisations value work-related creativity and diversity, the processes and practices of Music develop transferable 21st century skills essential for many areas of employment. Specifically, the study of Music helps develop creative and critical thinking, collaboration, ICT skills, social/personal skills and communication — all of which is sought after in modern workplaces.

Tertiary studies, vocational education or work experience in the area of music can lead to and benefit careers in diverse fields such as:

- arts administration and management, e.g. artist manager, arts administrator, booking agent, copyright/royalties manager, music accountant, orchestra manager, production music manager, record producer, studio manager, tour manager, venue manager
- communication, e.g. music copyist, music editor, music librarian, print music manager, sound archivist
- education, e.g. arts educator, instrumental teacher, studio teacher, university music academic
- creative industries, e.g. backing musician, composer, conductor, creative entrepreneur, instrument repairer, music director, performer, presenter, recording engineer, répétiteur, stage manager
- public relations, e.g. creative director, music lawyer, music merchandiser
- science and technology, e.g. music therapist, music video clip director, new media artist, producer, programmer, sound designer.



# MUSIC EXTENSION

## 2-UNIT GENERAL COURSE

### SUMMARY

Music Extension is a one year specialist course for students wishing to further enhance their Music studies. It allows for an individual course of study in one of three specialisations (Musicology, Performance or Composition), encouraging investigation of concepts and ideas relevant to their chosen specialisation. Music Extension prepares students for a future of unimagined possibilities, helping them to become self-motivated and aware. As a unique means of expression, music makes a profound contribution to personal, social and cultural identities. As they develop highly transferable and flexible skills, students become adaptable and innovative problem-solvers and collaborative team members who make informed decisions. As enquirers, students develop their ability to analyse and critically evaluate. Literacy in Music Extension is an essential skill for composers, musicologists and performers, and learning in Music Extension prepares students to engage in a multimodal world. Music Extension also allows for use co-curricular performance opportunities to be used as assessment items – which is highly advantageous for those studying for AMEB exams or university entrance auditions.

### PREREQUISITES

B- or higher in Year 11 Music is desirable; students must be studying Music in conjunction with Music Extension in their senior year.

### COURSE OUTLINE

**Unit 3:** In Unit 3, students enter into an apprenticeship and work towards realising their potential as composers, musicologists or performers. As an apprentice, students will work alongside an expert, artisan and/or resource to explore their specialisation. Through a gradual release of responsibility model, students develop into musicians who are working towards independence. With explicit guidance from teachers, students explore three models of apprenticeship: oral traditions, cognitive apprenticeship and interactive learning. They consider what constitutes good practice through research, mentor guidance, critique and fundamental skills of the specialisation. Students also develop skills in goal setting and reflective practice when developing their skills and understanding in the specialisation.

**Unit 4:** In Unit 4, students draw on their experiences from Unit 3 to realise their potential as composers, musicologists or performers. As emerging artists, students critically reflect on their musicianship and refine practice in an endeavour to discover their personal style as musicians. They operate with increasing independence and sophistication through independent application of the subject matter from Unit 3 and through the student's emerging individual music voice or identity.

Unit 4 contains one key idea: independent best practice. In this key idea, students demonstrate best practice independently. They work towards an individual approach to their specialisation. Students consolidate the subject matter from Key ideas 1 and 2 in Unit 3.

### ASSESSMENT (UNITS 3 AND 4)

|                        |   |
|------------------------|---|
| Internal Assessment 1: | Summative Internal Assessment (Composition, Performance or Investigation Task) (20%)    |
| Internal Assessment 2: | Summative Internal Assessment (Composition, Performance or Investigation Task) (20%)    |
| Internal Assessment 3: | Summative Internal Assessment (Composition, Performance or Investigatory Project) (35%) |
| External Assessment:   | Examination (25%)   |

**FURTHER STUDIES** - as per Music (parent subject)

# VISUAL ART

## 4-UNIT GENERAL COURSE

### SUMMARY

The arts are an intellectually engaging intersection of lateral thought and practice. They interrogate the human experience and challenge our understandings by encouraging and provoking alternative ways of seeing, thinking and doing. They enable us to know and observe our world collectively and as individuals. They reveal a sense of who we are and might become as we make connections and new meaning of the world around us and our place in it.

Visual Art students have opportunities to construct knowledge and communicate personal interpretations by working as both artist and audience. In making artworks, students use their imagination and creativity to innovatively solve problems and experiment with visual language and expression. Students develop knowledge and skills when they create individualised responses and meaning by applying diverse materials, techniques, technologies and art processes. On their individual journey of exploration, students learn to communicate personal thoughts, feelings, ideas, experiences and observations. In responding to artworks, students investigate artistic expression and critically analyse artworks in diverse contexts. They consider meaning, purposes and theoretical approaches when ascribing aesthetic value and challenging ideas. Students interact with artists, artworks, institutions and communities to enrich their experiences and understandings of their own and others' art practices.

This subject prepares young people for participation in the 21st century by fostering curiosity and imagination, and teaching students how to generate and apply new and creative solutions when problem-solving in a range of contexts. This learnt ability to think in divergent ways and produce creative and expressive responses enables future artists, designers and craftspeople to innovate and collaborate with the fields of science, technology, engineering and mathematics to design and manufacture images and objects that enhance and contribute significantly to our daily lives.

### PREREQUISITES

C in Year 10 Visual Art

### COURSE OUTLINE

**Unit 1:** In Unit 1, students look at their material world through the concept of 'art as lens', applying different lenses or viewpoints. They explore how artists work through processes to create new ways of thinking, meaning and representation. Beginning with tangible forms as inspiration, they examine and respond to focuses of people, places and objects, producing figurative and non-figurative representations.

**Unit 2:** In Unit 2, students explore the concept of 'art as code' to learn how visual language is capable of expressing complex ideas. Although both spoken language and visual language vary by culture, visual language has the potential to transcend and communicate across cultures, time and geography.

**Unit 3:** In Unit 3, students frame a self-directed inquiry question in response to a teacher-facilitated direct stimulus or first-hand experience. Through independent investigation of their inquiry question and application of critical thinking skills, students build knowledge about art, artist and audience to generate a personal focus and commence a body of work. They explore the concept 'art as knowledge' as they employ new knowledge inspired by their personal interests, beliefs and observations of the world.

**Unit 4:** In Unit 4, students continue and build on their focus, knowledge and art practice from Unit 3. They refine their expression and personal aesthetic by applying skills associated with creative thinking. Students resolve their body of work through the concept 'art as alternate' as they imagine, generate and apply new ideas and links. Through the pursuit of an individualised response, they challenge their approaches to identify alternatives and opportunities for innovation.

### ASSESSMENT (UNITS 3 AND 4)

Internal assessment 1: Inquiry Phase 1 Investigation (15%)  
 Internal assessment 2: Inquiry Phase 2 Project (25%)  
 Internal assessment 3: Inquiry Phase 3 Project (35%)  
 External assessment 4: Examination (25%)

### FURTHER STUDIES

The processes and practices of Visual Art, such as self-directed learning and creative problem solving, develop transferable 21st century skills that are highly valued in many areas of employment. Organisations increasingly seek employees who demonstrate work-related creativity, innovative thinking and diversity.

Tertiary studies, vocational education or work experience in the area of visual arts can lead to and benefit careers in diverse fields such as: advertising, arts administration and management, communication, creative industries, design, architecture, fashion design environmental design, fashion marketer, graphic designer, industrial designer, interior designer, stage designer, textiles designer, education, galleries and museums, film and television, public relations, visual translator, medical illustrator, computer game developer/programmer, digital communication specialist, digital content producer, multimedia designer, web designer, computer graphics modeller, forensic photographer.

# ACCOUNTING

## 4-UNIT GENERAL COURSE

### SUMMARY

Accounting is a universal discipline, encompassing the successful management of financial resources of the public sector, businesses and individuals. Accounting is a way of systematically organising, critically analysing and communicating financial data and information for decision-making.

When students study this subject, they develop an understanding of the essential role Accounting plays in the successful performance of any organisation. Students learn fundamental Accounting concepts in order to understand accrual accounting, managerial and accounting controls, preparing internal financial reports, ratio analysis and interpretation of internal and external financial reports.

Accounting is for students with a special interest in business, commerce, entrepreneurship and the personal management of financial resources. The numerical, literacy, technical, financial, critical thinking, decision-making and problem-solving skills learned in Accounting enrich the personal and working lives of students.

### PREREQUISITES

C in Year 10 Accounting

C in Year 10 English is highly recommended

### COURSE OUTLINE

**Unit 1:** In Unit 1, students consider real-world applications of accounting to develop an understanding of the role, purpose and uses of accounting. Students are introduced to accounting concepts through the analysis of accounting reports for companies. Double entry accounting principles are applied conceptually (handwritten and/or spreadsheet) to record and process cash and some basic credit transactions for service businesses. Students implement end-of-month processes to produce simple financial statements. Profitability is analysed and evaluated to inform potential investors and business owners about how the business has performed. Computerised accounting processes are introduced using a computerised accounting package to electronically record and process transactions and generate reports.

**Unit 2:** In Unit 2, students explore how accounting information is used to effectively manage the finances for a business. The accounting process is conceptually applied to record and process transactions and accounts for a trading GST business. GST and credit transactions are introduced for purchasing inventories from accounts payable and selling inventories to accounts receivable. Accrual accounting principles and processes are applied to prepare balance day adjustments (amounts stated) at the end of year to determine profit or loss and net worth in the financial statements. The use of a computerised accounting package and spreadsheet software provides students with an authentic application of processes. Students explore the implementation of internal controls in the accounting process to secure inventories and effectively manage credit accounts, and communicate their conclusions, decisions and recommendations to internal users.

**Unit 3:** In Unit 3, students monitor the resources of a trading GST business. Resources include accounts receivable, non-current assets and technology. Double entry and accrual accounting principles are applied to record the non-current assets (purchase,

depreciation and disposal) and accounts receivable (bad debts, doubtful debts) in the life of the business. Fully classified financial statements are produced to report comprehensively on the performance of the business. The use of spreadsheet software provides opportunity for the authentic application of spreadsheet features and spreadsheet functions in accounting contexts. Students explore how administrative and accounting controls can be used effectively to protect and maintain the resources of a business.

**Unit 4:** In Unit 4, students connect the relationship between the financial statements (reporting on past performance) and the cash budget (projecting for the future) and their importance in the financial management of a business. This unit brings together the complete process of preparing the financial statements for a trading sole trader GST business, both conceptually and using a computerised accounting package; the preparation of the cash budget using a spreadsheet; and an analysis of the financial statements (statement of profit or loss, statement of financial position and statement of cash flows). Ratios are calculated, and questions asked about the various elements that make up these financial statements in order to make decisions about the business. Making links to Unit 1, students examine external financial reports, calculate a range of ratios and compare these with past performance and industry benchmarks in order to determine how the listed public company is performing and make decisions for stakeholders about the results.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                   |
|------------------------|-------------------|
| Internal assessment 1: | Examination (25%) |
| Internal assessment 2: | Examination (25%) |
| Internal assessment 3: | Project (25%)     |
| External assessment:   | Examination (25%) |

### FURTHER STUDIES

Accounting is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Accounting can establish a basis for further education and employment in the fields of accounting, business, management, banking, finance, law, economics and commerce. Accounting provides students with a variety of future opportunities, enabling a competitive advantage in entrepreneurship and business management in many types of industries, both locally and internationally.

**BUSINESS****4-UNIT GENERAL COURSE****SUMMARY**

The study of business is relevant to all individuals in a rapidly changing, technology-focused and innovation-driven world. Through studying Business, students are challenged academically and exposed to authentic and real-life practices. Students investigate the business life cycle from the seed to post-maturity stage and develop skills in examining business data and information. Students learn business concepts, theories, processes and strategies relevant to leadership, management and entrepreneurship. A range of business environments and situations is explored. Through this exploration, students investigate the influence on and implications for strategic development in the functional areas of finance, human resources, marketing and operations.

Business allows students to engage with the dynamic business world (in both national and global contexts), the changing workforce and emerging digital technologies. It addresses contemporary implications, giving students a competitive edge in the workplace as socially responsible and ethical members of the business community, and as informed citizens, employees, consumers and investors

**PREREQUISITES**

C in Year 10 Business

C in Year 10 English is highly recommended

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students explore fundamental business concepts, strategies and processes relating to strategic planning, business environments, leadership, management, entrepreneurship, human resources, finance, marketing, operations and technology. Students investigate the creation of business ideas and the business life cycle before focusing on the challenges of the seed stage. SWOT and PEST analytical tools are used to analyse strategic planning, stakeholders, competitors and the business environment. Business and entrepreneurial ideas are evaluated using the criteria of competitiveness, effectiveness, efficiency and stakeholder satisfaction to determine their viability. Students use their knowledge of the fundamentals of business and the creation of business ideas to analyse, interpret and evaluate two contemporary business case studies.

**Unit 2:** In Unit 2, students explore concepts, strategies and processes used by businesses in the start-up and growth stages of the business life cycle. Students explore leadership and management across the key business functions, including financial, human resources, marketing and operations in the growth stage. Analytical tools, including SWOT, PESTLE and break-even analysis, are used to analyse and interpret the implications of establishing a business. Market entry is analysed and interpreted using the analytical tools SWOT, USP analysis and power interest grid. Strategies to establish a business and market entry are evaluated using the criteria competitiveness, effectiveness, efficiency and stakeholder satisfaction. Two authentic case studies will allow students to investigate a franchise and a business entering a new market.

**Unit 3:** In Unit 3, students explore strategies and practices used by businesses in the maturity stage of the business life cycle. Students investigate diversification strategies, with a specific focus on expansion into global markets, and emerging strategies providing a competitive advantage. Analytical tools, including SWOT, STEEPLE, cost-benefit and power interest, are used to analyse the challenges businesses experience when trying to differentiate and expand. Business diversification strategies are evaluated using the criteria competitiveness, effectiveness, efficiency and stakeholder satisfaction. Students propose recommendations for business strategies across a range of management and functional areas. An authentic business case study allows students to investigate an Australian business that has expanded into the Asian market.

**Unit 4:** In Unit 4, students investigate the challenges for businesses in the post-maturity stage of the business life cycle and explore the leadership and management required when repositioning or transforming a business using financial, human resources, marketing and operations management strategies. Drivers of change and change management theories allow students to analyse, interpret and evaluate the outcomes for business evolution. A variety of analytical tools, including SWOT, STEEPLE, Porter's five forces, force field analysis and power interest grid, are used to analyse and interpret repositioning and transformation of business. The evaluation criteria of competitiveness, effectiveness, efficiency and stakeholder satisfaction are used to make decisions and recommendations to reposition and transform businesses.

**ASSESSMENT (UNITS 3 AND 4)**

Internal assessment 1: Examination (25%)

Internal assessment 2: Investigation – business report (25%)

Internal assessment 3: Extended response – feasibility report (25%)

External assessment: Examination (25%)

**FURTHER STUDIES**

Business is a General subject suited to students who are interested in pathways beyond Year 12 that lead to tertiary studies, vocational education or work. A course of study in Business can establish a basis for further education and employment in the fields of business management, business development, entrepreneurship, business analytics, economics, business law, accounting and finance, international business, marketing, human resources management and business information systems.

## REGISTERED TRAINING ORGANISATION

Binnacle Training (RTO Code: 31319)

## SUMMARY

Binnacle's Certificate III in Business 'Business in Schools' program is offered as a Senior subject where students learn what it takes to become a Business professional. Students achieve skills in leadership, innovation, customer service, personal management and financial literacy – incorporating the delivery of a range of projects and services within their school community. Micro business opportunities are also explored. Graduates will be able to use their Certificate III in Business

- as an entry level qualification into the Business Services Industries (e.g. customer service adviser, duty manager, administration officer);
- to pursue further tertiary pathways (e.g. Certificate IV, Diploma or Bachelor of Business);
- and to improve their chances of gaining tertiary entrance

## PREREQUISITES

Students must have a passion for and/or interest in working in the Business Services industry and/or pursuing further tertiary pathways (e.g. Certificate IV, Diploma and Bachelor of Business). They must have good quality written and spoken communication skills and an enthusiasm / motivation to participate in a range of projects.

There is an additional cost of \$230 that is paid to Binnacle to cover the cost of the course prior to students commencing. This cost is current but may be subject to change.

## COURSE OUTLINE

| YEAR 11   |   |
|---|---|
| TERM 1*   | TERM 2  |
| <ul style="list-style-type: none"> <li>• Introduction to the Business Services industry</li> <li>• Develop a learning plan and undertake e-learning</li> <li>• Knowledge of the Australian Financial System</li> <li>• Financial calculations</li> </ul>  | <ul style="list-style-type: none"> <li>• Workplace Health and Safety: legislations, risk assessment</li> <li>• Environmental sustainability</li> <li>• Processing workplace information</li> <li>• Financial Literacy Short Course – Be MoneySmart</li> </ul> |
| TERM 3  | TERM 4  |
| <ul style="list-style-type: none"> <li>• Working effectively in a business environment</li> <li>• Contributing to team effectiveness</li> </ul>   | <ul style="list-style-type: none"> <li>• Organising meetings</li> <li>• Organising personal work priorities and developing a project plan</li> <li>• Communication</li> </ul>   |
| YEAR 12   |   |
| TERM 1  | TERM 2  |
| <ul style="list-style-type: none"> <li>• Customer Service: Products and services; meeting customer needs</li> <li>• Deliver a service</li> <li>• Leadership: Promote innovation in a team environment</li> <li>• Innovation: Enterprise and entrepreneurs</li> <li>• Major Project: Design and plan for a new product/service (Part 1)</li> </ul> | <ul style="list-style-type: none"> <li>• Plan and develop business documents</li> <li>• Plan, draft and finalise promotional material</li> <li>• Major Project: Design and plan for a new product/service (Part 2)</li> </ul>                                 |

## TERM 3

- Financial Literacy Short Course (FNSFLT401 - Be MoneySmart through a career in small business)

*Finalisation of Certificate III in Business*

*\* Elective units are subject to change prior to the commencement of the 2020 school year. This is to ensure alignment to current industry practices is at its optimum.*

Learning experiences will be achieved by students working alongside an experienced Business Teacher (Program Coordinator) – incorporating delivery of a range of projects and services within their school community. This may include fundraising projects; health promotion programs; community events.

Students may also participate in the R U OK? Mental Health Awareness Week – Team Project and a Major Project where students design and plan for a new product or service.

A range of teaching/learning strategies will be used to deliver the competencies. These include:

- Practical tasks/experience
- Hands-on activities involving customer service
- Group work
- e-Learning projects

Evidence contributing towards competency will be collected throughout the program. This process allows a student's competency to be assessed in a holistic approach that integrates a range of competencies.

NOTE: From time to time, project delivery may require a mandatory 'outside subject' component (e.g. before or after school).

## PATHWAYS

The Certificate III in Business will be used by students seeking to enter the Business Services industries and/or pursuing further tertiary pathways (e.g. Certificate IV, Diploma and Bachelor of Business). For example:

- Business Owner
- Business Manager
- Customer Service Manager

## IMPORTANT PROGRAM DISCLOSURE STATEMENT

The Subject Outline is to be read in conjunction with Binnacle Training's Program Disclosure Statement (PDS). The PDS sets out the services and training products Binnacle Training provides delivery of these services carried out by the 'Partner School' (i.e. the delivery of training and assessment services).

To access Binnacle's PDS, visit: [www.binnacletraining.com.au/rto.php](http://www.binnacletraining.com.au/rto.php) and select 'Subject Selection'.

Printed May 2019; correct at time of publication but subject to change.



# ECONOMICS

## 4-UNIT GENERAL COURSE

### SUMMARY

The discipline of economics is integral to every aspect of our lives: our employment opportunities, business operations and living standards. The subject challenges us to use evidence and be innovative when solving problems in a world of complex global relationships and trends, where a knowledge of economic forces and flows leads to better decisions. In Economics, decision-making is core: how to allocate and distribute scarce resources to maximise well-being.

Students develop knowledge and cognitive skills to comprehend, apply analytical processes and use economic knowledge. They examine data and information to determine validity and consider economic policies from various perspectives. Economic models and analytical tools are used to investigate and evaluate outcomes to draw conclusions. In the process, students appreciate ideas, viewpoints and values underlying economic issues.

Economics appeals to students from Humanities and Business, and those interested in the broader relevance of Mathematics, Technology and Science because of their connection with economic forces.

### PREREQUISITES

C in Year 10 Economics

C in Year 10 English is highly recommended

### COURSE OUTLINE

**Unit 1:** In Unit 1, students understand how the fundamental economic concepts of scarcity, choice and opportunity cost compel individuals, businesses and governments to make decisions about how best to allocate resources among competing needs. The nature of the basic economic problem is examined, and the consequences of scarcity are expressed in the production possibility curve and through the choices made by modern economic systems. Students analyse the factors that impact on the economy through the circular flow of income model and investigate the price mechanism as a model for the efficient allocation of resources.

**Unit 2:** In Unit 2, students explore the imperfections within markets and the economic concept that markets do not always deliver socially desirable or efficient outcomes. They investigate the causes and effects of market failure and the measures and strategies that may be used to modify markets in attempts to maximise economic and social well-being. Various market interventions are evaluated in terms of their effectiveness in minimising the short and long-term consequences of markets not delivering socially optimal outcomes.

**Unit 3:** In Unit 3, students focus on the complex ideas and relationships underlying the international economy and the impact that these have on Australia's domestic economy and decision-making. Students consider Australia's engagement in international trade and the global economy, including the theories behind trade and exchange rates. International economic issues involving trade barriers and the balance of payments are investigated from a theoretical and contemporary viewpoint and form the basis of student-led research.

**Unit 4:** In Unit 4, students concentrate on the practical application of the Australian Government's domestic macroeconomic objectives. They investigate the performance of the economy by focusing on the concept of the economic cycle and analysing a variety of economic indicators to evaluate the nation's current position in the economic cycle. Students examine aggregate demand and supply to model the level of output in the economy and its relationship to the government's current macroeconomic objectives. Available policy instruments are analysed and evaluated in order to draw conclusions or make decisions about the relevant policy mix with reference to the current economic climate.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                                       |
|------------------------|---------------------------------------|
| Internal assessment 1: | Examination (25%)                     |
| Internal assessment 2: | Investigation – Research report (25%) |
| Internal assessment 3: | Examination (25%)                     |
| External assessment:   | Examination (25%)                     |

### FURTHER STUDIES

Economics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Economics can establish a basis for further education and employment in the fields of economics, econometrics, management, data analytics, business, accounting, finance, actuarial science, law and political science. Economics provides a competitive advantage for career options where students are aiming for management roles and developing their entrepreneurial skills to create business opportunities as agents of innovation.

# HOSPITALITY PRACTICES

## 4-UNIT APPLIED COURSE

### SUMMARY

Hospitality Practices enables students to develop knowledge, understanding and skills of the hospitality industry and to consider a diverse range of post school options.

The Hospitality Practices syllabus emphasises the food and beverage sector, which includes food and beverage production and service. Through this focus, students develop an understanding of hospitality and the structure, scope and operation of related activities in the food and beverage sector. The subject enables students to develop skills in food and beverage production and service. They work as individuals and as part of teams to plan and implement events in a hospitality context. Events provide opportunities for students to participate in and produce food and beverage products and perform service for customers in real-world hospitality contexts. As well, students examine and evaluate industry practices from the food and beverage sector.

Students develop awareness of industry workplace culture and practices and develop the skills, processes and attitudes desirable for future employment in the sector.

### PREREQUISITES

Nil

### COURSE OUTLINE

The course of study consists of three core topics which describe concepts and ideas and the associated knowledge, understanding and skills fundamental to the hospitality industry, and are delivered through electives. The three electives represent key employment areas within the food and beverage sector, enabling students to develop a solid understanding of the sector.

#### Core Topics

Topic 1: Navigating the hospitality industry

Topic 2: Working effectively with others

Topic 3: Hospitality in practice

#### Elective Topics

Elective 1: Kitchen operations

Elective 2: Beverage operations and service

Elective 3: Food and beverage service

### ASSESSMENT TECHNIQUES

Project

Investigation

Extended response

Examination

### FURTHER STUDIES

A course of study in Hospitality Practices can establish a basis for further education and employment in the hospitality sectors of food and beverage, catering, accommodation and entertainment. Students could pursue further studies in hospitality, hotel, event and tourism or business management, which allows for specialisation.

**SUMMARY**

English learning area subjects offer students opportunities to enjoy language and be empowered as functional, purposeful, creative and critical language users who understand how texts can convey and transform personal and cultural perspectives. In a world of rapid cultural, social, economic and technological change, complex demands are placed on citizens to be literate within a variety of modes and mediums. Students are offered opportunities to develop this capacity by drawing on a repertoire of resources to interpret and create texts for personal, cultural, social and aesthetic purposes. They learn how language varies according to context, purpose and audience, content, modes and mediums, and how to use it appropriately and effectively for a variety of purposes. Students have opportunities to engage with diverse texts to help them develop a sense of themselves, their world and their place in it.

The subject English focuses on the study of both literary texts and non-literary texts, developing students as independent, innovative and creative learners and thinkers who appreciate the aesthetic use of language, analyse perspectives and evidence, and challenge ideas and interpretations through the analysis and creation of varied texts.

Students have opportunities to engage with language and texts through a range of teaching and learning experiences to foster:

- skills to communicate effectively in Standard Australian English for the purposes of responding to and creating literary texts and non-literary texts
- skills to make choices about generic structures, language, textual features and technologies for participating actively in literary analysis and the creation of texts in a range of modes, mediums and forms, for a variety of purposes and audiences
- enjoyment and appreciation of literary and non-literary texts, the aesthetic use of language, and style
- creative thinking and imagination, by exploring how literary and non-literary texts shape perceptions of the world and enable us to enter the worlds of others
- critical exploration of ways in which literary and non-literary texts may reflect or challenge social and cultural ways of thinking and influence audiences
- empathy for others and appreciation of different perspectives through studying a range of literary and non-literary texts from diverse cultures and periods, including Australian texts by Aboriginal writers and/or Torres Strait Islander writers.

**PREREQUISITES**

C in Year 10 English

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students explore individual and/or collective experiences and perspectives of the world through engaging with a variety of texts in a range of contexts. They examine how perspectives and representations of concepts, identities and/or groups are constructed through textual choices such as language, medium, style and text structures. This unit allows students to explore how meaning is shaped through the relationships between language, text, purpose, context and audience. Students respond to a variety of non-literary texts and literary texts and create texts of their own for a variety of purposes and audiences.

**Unit 2:** In Unit 2, students explore cultural experiences of the world through engaging with a variety of texts, including a focus on Australian cultures for at least half of the unit. Building on Unit 1, students develop their understanding of how relationships between language, text, purpose, context and audience shape meaning and cultural perspectives. By engaging with a variety of texts, including Australian texts, students examine the relationship between language and identity, the effect of textual choices and the ways in which these choices position audiences for particular purposes, revealing attitudes, values and beliefs. Students respond to and create imaginative and analytical texts of their own.

**Unit 3:** In Unit 3, students explore connections between texts by examining representations of the same concepts and issues in different texts. In doing so, they consider how the textual constructions of the same concepts and issues in different texts resonate, relate to, and clash with one another. By examining texts in relation to other texts, students are offered opportunities to explore how connections between texts contribute to meaning-making. They revisit and build on understandings from Units 1 and 2 about how meaning and perspectives are shaped by the relationships between language, purpose, text, context and audience.

**Unit 4:** In Unit 4, students explore the world and human experience by engaging with literary texts from diverse times and places. They explore how these texts build a shared understanding of the human experience and through this become part of a cultural heritage. This unit includes the close study of literary texts to allow students to extend their experience of the world.

The unit comprises two topics:

Topic 1: Creative responses to literary texts

Topic 2: Critical responses to literary texts.

**ASSESSMENT (UNITS 3 AND 4)**

|                        |                         |
|------------------------|-------------------------|
| Internal assessment 1: | Extended Response (25%) |
| Internal assessment 2: | Extended Response (25%) |
| Internal assessment 3: | Examination (25%)       |
| External assessment:   | Examination (25%)       |

**FURTHER STUDIES**

English is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in English promotes open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.



### SUMMARY

English learning area subjects offer students opportunities to enjoy language and be empowered as functional, purposeful, creative and critical language users who understand how texts can convey and transform personal and cultural perspectives. In a world of rapid cultural, social, economic and technological change, complex demands are placed on citizens to be literate within a variety of modes and mediums. Students are offered opportunities to develop this capacity by drawing on a repertoire of resources to interpret and create texts for personal, cultural, social and aesthetic purposes. They learn how language use varies according to context, purpose and audience, content, modes and mediums and how to use it appropriately and effectively for a variety of purposes. Students have opportunities to engage with diverse texts to help them develop a sense of themselves, their world and their place in it.

The subject Essential English develops and refines students' understanding of language, literature and literacy to enable them to interact confidently and effectively with others in everyday, community and social contexts. The subject encourages students to recognise language and texts as relevant in their lives now and in the future and to enable them to understand, accept or challenge the values and attitudes in these texts.

Students have opportunities to engage with language and texts through a range of teaching and learning experiences to foster:

- skills to communicate confidently and effectively in Standard Australian English in a variety of contemporary contexts and social situations, including every day, social, community, further education and work-related contexts
- skills to choose generic structures, language, language features and technologies to best convey meaning
- skills to read for meaning and purpose, and to use, critique and appreciate a range of contemporary literary and non-literary texts
- effective use of language to produce texts for a variety of purposes and audiences
- creative and imaginative thinking to explore their own world and the worlds of others
- active and critical interaction with a range of texts, and an awareness of how the language they engage with positions them and others
- empathy for others and appreciation of different perspectives through a study of a range of texts from diverse cultures, including Australian texts by Aboriginal writers and/or Torres Strait Islander writers
- enjoyment of contemporary literary and non-literary texts, including digital texts

### PREREQUISITES

Nil

### COURSE OUTLINE

**Unit 1:** In Unit 1, students explore how meaning is communicated in contemporary texts developed for and used in a work context. Students develop and use a range of strategies and skills to comprehend and interpret these texts. They explore how the relationships between context, purpose and audience create meaning in work-related texts. Students identify, consider and explain language choices and the organisational features of texts, and their impact on meaning. Students respond to a variety of work-related texts and create texts of their own for a

variety of purposes and audiences.

**Unit 2:** In Unit 2, students explore individual and/or collective experiences and perspectives of the world. Students explore how different perspectives, ideas, cultural assumptions, attitudes, values and beliefs are communicated through the textual representations of a range of human experiences. They identify audience and purpose and consider how meaning is shaped in reflective and nonfiction texts to invite audiences to accept a particular point of view. Students respond to a variety of reflective and/or nonfiction texts by creating texts of their own for a variety of purposes and audiences.

**Unit 3:** In Unit 3, students explore community, local and/or global issues and ideas presented in a range of texts that invite an audience to take up positions. Building on Units 1 and 2, students apply their understanding about how perspectives, ideas, attitudes and values are represented in texts to influence audiences to take up positions. They explore how issues are represented in a range of texts and develop their own point of view about these issues. Students synthesise information to respond to and create a range of texts, considering their intended purpose, their representation of ideas and issues, and audience responses. In responding to texts, students have opportunities to discuss and listen to differing perspectives, compare, draw conclusions and influence audiences for a range of purposes.

**Unit 4:** In Unit 4, students explore how the generic structures, language features and language of contemporary popular culture texts shape meaning. They revisit and build on learning from Units 1, 2 and 3 about how the relationship between context, purpose and audience creates meaning, and they independently apply comprehension strategies when engaging with texts. Students respond to and engage with a variety of texts, including Australian texts, and create texts of their own. In responding to popular contemporary texts, students consider how perspectives and values are represented dependent on audience, purpose and context. They reflect on a range of popular culture texts and develop their own interpretations.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                                  |
|------------------------|----------------------------------|
| Internal assessment 1: | Extended Response (25%)          |
| Internal assessment 2: | Common Internal Assessment (25%) |
| Internal assessment 3: | Extended Response (25%)          |
| Internal assessment 4: | Extended Response (25%)          |

### FURTHER STUDIES

Essential English is an Applied subject suited to students who are interested in pathways beyond Year 12 that lead to tertiary studies, vocational education or work. A course of study in Essential English promotes open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.

## LITERATURE

## 4-UNIT GENERAL COURSE

**SUMMARY**

English learning area subjects offer students opportunities to enjoy language and be empowered as functional, purposeful, creative and critical language users who understand how texts can convey and transform personal and cultural perspectives. In a world of rapid cultural, social, economic and technological change, complex demands are placed on citizens to be literate within a variety of modes and mediums. Students are offered opportunities to develop this capacity by drawing on a repertoire of resources to interpret and create texts for personal, cultural, social and aesthetic purposes. They learn how language varies according to context, purpose and audience, content, modes and mediums, and how to use it appropriately and effectively for a variety of purposes. Students have opportunities to engage with diverse texts to help them develop a sense of themselves, their world and their place in it.

The subject Literature focuses on the study of literary texts, developing students as independent, innovative and creative learners and thinkers who appreciate the aesthetic use of language, analyse perspectives and evidence, and challenge ideas and interpretations through the analysis and creation of varied literary texts.

Students have opportunities to engage with language and texts through a range of teaching and learning experiences to foster:

- the skills to communicate effectively in Standard Australian English for the purposes of responding to and creating literary texts
- the skills to make choices about generic structures, language, textual features and technologies to participate actively in the dialogue and detail of literary analysis and the creation of imaginative and analytical texts in a range of modes, mediums and forms
- enjoyment and appreciation of literary texts and the aesthetic use of language
- creative thinking and imagination by exploring how literary texts shape perceptions of the world and enable us to enter the worlds of others
- critical exploration of ways in which literary texts may reflect or challenge social and cultural ways of thinking and influence audiences
- empathy for others and appreciation of different perspectives through studying a range of literary texts from diverse cultures and periods, including Australian texts by Aboriginal writers and/or Torres Strait Islander writers.

**PREREQUISITES**

B in Year 10 English

C in Year 10 Literature

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students develop knowledge and understanding of the ways literary styles and structures shape how texts are received and responded to by individual readers and audiences. Students study a range of literary forms from various contexts and consider how textual choices engage readers imaginatively, emotionally and critically. They develop familiarity with key terms, concepts and practices that equip them for further studies in literature, and an appreciation of the various ways literary texts are crafted.

**Unit 2:** In Unit 2, students develop knowledge and understanding of the ways literary texts connect with each other. Students study texts that are closely related in terms of genre, theme and/or context, or texts that are adaptations of other texts. They consider how changes to the form and medium of a text affect its meaning. They compare and contrast the ideas, style and structure of different texts to explore the ways in which texts interact with and build on each other to offer varied representations and perspectives. Students engage with critical readings and imaginative adaptations of literary texts to enhance and develop their own interpretations and responses.

**Unit3:** In Unit 3, students develop knowledge and understanding of the relationship between language, culture and identity in literary texts. Students inquire into the power of language to represent ideas, events and people, comparing these across a range of texts, contexts, modes and forms. Through critical analysis, students consider how texts endorse, challenge or question cultural assumptions. In engaging with literary texts, students reflect upon their own backgrounds and experiences and how these affect their interpretations. Students analyse textual representations to explore the cultural assumptions that underpin points of view and perspectives in texts.

**Unit 4:** In Unit 4, students demonstrate increasing independence in exploring, interpreting, analysing and appreciating the aesthetic appeal of literary texts and the insights they offer. The unit focuses on the dynamic nature of literary explorations and interpretations, and how a close examination of structure, style and subject matter of literary texts supports various responses.

**ASSESSMENT (UNITS 3 AND 4)**

|                        |                         |
|------------------------|-------------------------|
| Internal assessment 1: | Examination (25%)       |
| Internal assessment 2: | Extended Response (25%) |
| Internal assessment 3: | Extended Response (25%) |
| External assessment:   | Examination (25%)       |

**FURTHER STUDIES**

Literature is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Literature promotes open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.

# ENGLISH AS AN ADDITIONAL LANGUAGE

## 4-UNIT GENERAL COURSE

### SUMMARY

English learning area subjects offer students opportunities to enjoy language and be empowered as functional, purposeful, creative and critical language users who understand how texts can convey and transform personal and cultural perspectives. In a world of rapid cultural, social, economic and technological change, complex demands are placed on citizens to be literate within a variety of modes and mediums. Students are offered opportunities to develop this capacity by drawing on a repertoire of resources to interpret and create texts for personal, cultural, social and aesthetic purposes. They learn how language varies according to context, purpose and audience, content, modes and mediums, and how to use it appropriately and effectively for a variety of purposes. Students have opportunities to engage with diverse texts to help them develop a sense of themselves, their world and their place in it.

The subject English as an Additional Language is designed to develop students' knowledge, understanding and language skills in Standard Australian English (SAE), and provides students with opportunities to develop higher-order thinking skills through interpretation, analysis and creation of varied literary, non-literary, media and academic texts. Students have opportunities to engage with language and texts through a range of teaching and learning experiences to foster:

- the skills to communicate effectively in SAE for the purposes of responding to and creating literary and non-literary texts
- the development of language skills required for English language learners to be competent users of written and spoken English in a variety of contexts including academic contexts suitable for tertiary studies
- the skills to make choices about generic structures, language, textual features and technologies to best convey intended meaning in the most appropriate medium and genre
- exploration of ways in which literary and non-literary texts may reflect or challenge social and cultural ways of thinking and influence audiences
- empathy for others and appreciation of different perspectives through a study of a range of literary texts from diverse cultures and periods, including Australian texts by Aboriginal writers and/or Torres Strait Islander writers
- enjoyment and appreciation of the English language.

The English as an Additional Language syllabus values and affirms the diversity of languages, interests, background knowledge and abilities that EAL students bring to the classroom. Students for whom this course is intended have the right to learn and succeed within a curriculum that is sensitive to and inclusive of their prior learning and experiences.

This syllabus also recognises the histories of Aboriginal peoples and Torres Strait Islander peoples and the multiple languages they have spoken and continue to speak in Australia. It acknowledges that Aboriginal peoples and Torres Strait Islander peoples communicate in a variety of ways that are deeply embedded in their collective histories and relationships.

### PREREQUISITES

Nil

### COURSE OUTLINE

**Unit 1:** In Unit 1, students respond to and create texts that show

how language and culture are interrelated and expressed in a range of socio-cultural contexts. A variety of written and spoken literary and non-literary texts including a focus on media texts will be used to develop an understanding of and ability to use text structures and language features across a range of contexts including academic learning. Students respond to and create analytical, persuasive and academic text types for a range of purposes and audiences.

**Unit 2:** In Unit 2, students respond to and analyse perspectives represented in Australian texts and how cultural assumptions, values, attitudes and beliefs underpin these texts. These texts may include texts by Aboriginal writers or Torres Strait Islander writers. Students create texts for a range of audiences and contexts. In responding to and analysing texts, students develop their understanding of how relationships between language, text, purpose, context and audience shape meaning and cultural perspectives. This unit builds on students' capacity to examine how texts work as they respond to and create imaginative and analytical texts for a range of purposes and audiences.

**Unit 3:** In Unit 3, students build on and consolidate their capacity to examine how texts work as they analyse and respond to representations of contemporary social issues, ideas and attitudes in a range of literary and non-literary texts, including media texts. Students investigate, explore and analyse how meaning and perspectives are shaped by the relationships between language, purpose, text, contexts and audiences. This unit focuses on providing opportunities for students to respond to and analyse a literary text, and to examine and create persuasive texts for particular purposes and audiences.

**Unit 4:** In Unit 4, students explore representations of the world and human experience by engaging with literary texts from diverse times and places. Students are given opportunities to explore how these texts build a shared understanding of human experience, and to examine how representations of social, moral and ethical issues position readers and viewers. Issues of contemporary social, moral and ethical relevance may include gender, power, race, religion, age and class. This unit includes the close study of a literary text to allow students to explore further the ways in which language choices shape meaning and influence audiences. Students use their language skills to create imaginative and analytical responses to literary texts.

The unit comprises two topics:

Topic 1: Creative responses to literary texts

Topic 2: Critical responses to literary texts.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                         |
|------------------------|-------------------------|
| Internal assessment 1: | Examination (25%)       |
| Internal assessment 2: | Extended Response (25%) |
| Internal assessment 3: | Extended Response (25%) |
| External assessment:   | Examination (25%)       |

### FURTHER STUDIES

English as an Additional Language is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in English as an Additional Language promotes not only language and literacy skills, but also open-mindedness, imagination, critical awareness and intellectual flexibility — skills that prepare students for local and global citizenship, and for lifelong learning across a wide range of contexts.

# CHINESE (MANDARIN)

## 4-UNIT GENERAL COURSE

### SUMMARY

Chinese is a course of study consisting of four units. Subject matter, learning experiences and assessment increase in complexity from Units 1 and 2 to Units 3 and 4 as students develop greater independence as learners. Units 1 and 2 provide foundational learning, which allows students to experience all syllabus objectives and begin engaging with the course subject matter. Students should complete Units 1 and 2 before beginning Unit 3. It is recommended that Unit 3 be completed before Unit 4. Units 3 and 4 consolidate student learning. Only the results from Units 3 and 4 will contribute to ATAR calculations.

### PREREQUISITES

C in Year 10 Chinese

### COURSE OUTLINE

**Unit 1:** In Unit 1, students compare and contrast lifestyles and education in Australian and Chinese-speaking communities, schools, homes and peer-group contexts. They communicate their understanding and experiences of relationships through the use of information and ideas in texts and language, such as formal and informal spoken language, and develop a variety of strategies to maintain communication. Students generate and compare information about their own and others' personal identities, and the cultural values related to personal and wider community lifestyles, leisure and education. The subject matter engages students with aspects of language and textual conventions — to communicate similarities and differences, and to develop opinions about the lives and interests of young people — in familiar and unfamiliar school and home environments.

**Unit 2:** In Unit 2, students move beyond their personal world to how they engage with the world. They do this by exploring options for personal travel and tourism in Chinese-speaking countries and Australia, and by considering the associated cultural conventions. Their study focuses on the increasingly central role and impact of technology and media in their own lives and the lives of Chinese-speaking peers. Students consider the ways that Chinese culture has contributed to the world, and reflect upon their experiences, compare options and express preferences, while appreciating diverse cultural values. This provides the opportunity to develop knowledge and understanding of a range of language elements and textual structures; to communicate similarities and differences; and to develop opinions about travel, technology and media, and the contribution of Chinese culture in the wider world.

**Unit 3:** In Unit 3 students investigate their place in society. They reflect on roles and relationships in society and how they and their peers retain a sense of connectedness and belonging. Consideration is also given to stereotyping of groups in the community and how identity is linked or challenged by membership of these groups in their own and Chinese-speaking communities. They learn how to express opinions about pressures and social expectations among their peers. As they comprehend, analyse, interpret and consider topics affecting their current and future society, students develop knowledge and understanding of a range of language elements. Students deepen their appreciation of cultural perspectives, as they are offered opportunities to use Chinese to synthesise how society impacts on themselves and their peers.

**Unit 4:** In Unit 4, students focus on their final year of school and their post-school future. This includes end-of-school celebrations, students' plans for their immediate future and how these plans, responsibilities and aspirations compare with those of young Chinese speakers. As students research and discuss, and then create texts relevant to school leavers, they consolidate their knowledge and understanding of a range of language elements, structures and text types. Students are offered opportunities to use Chinese, to explore their perspectives on issues relevant to their futures and to the futures of their peers, and to reflect on the end of their school lives.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                         |
|------------------------|-------------------------|
| Internal assessment 1: | Examination (15%)       |
| Internal assessment 2: | Examination (30%)       |
| Internal assessment 3: | Extended Response (30%) |
| External assessment:   | Examination (25%)       |

### FURTHER STUDIES

Chinese is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Chinese can establish a basis for further education and employment in many professions and industries. For example, those which value the knowledge of an additional language and the intercultural understanding it encompasses, such as business, hospitality, law, science, technology, sociology and education.

**SUMMARY**

Italian is a course of study consisting of four units. Subject matter, learning experiences and assessment increase in complexity from Units 1 and 2 to Units 3 and 4 as students develop greater independence as learners. Units 1 and 2 provide foundational learning, which allows students to experience all syllabus objectives and begin engaging with the course subject matter. Students should complete Units 1 and 2 before beginning Unit 3. It is recommended that Unit 3 be completed before Unit 4. Units 3 and 4 consolidate student learning. Only the results from Units 3 and 4 will contribute to ATAR calculations.

**PREREQUISITES**

C in Year 10 Italian

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students compare and contrast lifestyles and education in Australian and Italian-speaking communities, schools, homes and peer-group contexts. They communicate their understanding and experiences of relationships through the use of information and ideas in texts and language, such as formal and informal spoken language, and develop a variety of strategies to maintain communication. Students generate and compare information about their own and others' personal identities, and the cultural values related to personal and wider community lifestyles, leisure and education. The subject matter engages students with aspects of language and textual conventions — to communicate similarities and differences, and to develop opinions about the lives and interests of young people — in familiar and unfamiliar school and home environments.

**Unit 2:** In Unit 2, students move beyond their personal world to how they engage with the world. They do this by exploring options for personal travel and tourism in Italian-speaking countries and Australia, and by considering the associated cultural conventions. Their study focuses on the increasingly central role and impact of technology and media in their own lives and the lives of Italian-speaking peers. Students consider the ways that Italian culture has contributed to the world, and reflect upon their experiences, compare options and express preferences, while appreciating diverse cultural values. This provides the opportunity to develop knowledge and understanding of a range of language elements and textual structures; to communicate similarities and differences; and to develop opinions about travel, technology and media, and the contribution of Italian culture in the wider world.

**Unit 3:** In Unit 3 students investigate their place in society. They reflect on roles and relationships in society and how they and their peers retain a sense of connectedness and belonging. Consideration is also given to stereotyping of groups in the community and how identity is linked or challenged by membership of these groups in their own and Italian-speaking communities. They learn how to express opinions about pressures and social expectations among their peers. As they comprehend, analyse, interpret and consider topics affecting their current and future society, students develop knowledge and understanding of a range of language elements. Students deepen their appreciation of cultural perspectives, as they are offered opportunities to use Italian to synthesise how society impacts on themselves and their peers.

**Unit 4:** In Unit 4, students focus on their final year of school and their post-school future. This includes end-of-school celebrations, students' plans for their immediate future and how these plans, responsibilities and aspirations compare with those of young Italian speakers. As students research and discuss, and then create texts relevant to school leavers, they consolidate their knowledge and understanding of a range of language elements, structures and text types. Students are offered opportunities to use Italian, to explore their perspectives on issues relevant to their futures and to the futures of their peers, and to reflect on the end of their school lives.

**ASSESSMENT (UNITS 3 AND 4)**

|                        |                         |
|------------------------|-------------------------|
| Internal assessment 1: | Examination (15%)       |
| Internal assessment 2: | Examination (30%)       |
| Internal assessment 3: | Extended Response (30%) |
| External assessment:   | Examination (25%)       |

**FURTHER STUDIES**

Italian is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Italian can establish a basis for further education and employment in many professions and industries. For example, those which value the knowledge of an additional language and the intercultural understanding it encompasses, such as business, hospitality, law, science, technology, sociology and education.

# ESSENTIAL MATHEMATICS

## 4-UNIT APPLIED COURSE

### SUMMARY

Essential Mathematics is an Applied course. It is for students who either struggled with Year 10 General Mathematics, or those that want to improve their numeracy whilst at school without mathematics taking up too much of their time. There is no external examination for this subject. There are four (4) assessment items, all of which are set internally by Villanova College. Students will obtain their QCE (Queensland Certificate of Education) with a grade of C in Essential Mathematics.

Essential Mathematics has an emphasis on estimation, problem-solving and reasoning, which develops students into thinking citizens who interpret and use mathematics to make informed predictions and decisions about personal and financial priorities. Students will see mathematics as applicable to their employability and lifestyles and develop leadership skills through self-direction and productive engagement in their learning. They will show curiosity and imagination and appreciate the benefits of technology. Students will gain an appreciation that there is rarely one way of doing things and that the real-world mathematics requires adaptability and flexibility. The major domains of mathematics in Essential Mathematics are Number, Data, Location and time, Measurement and Finance. Teaching and learning builds on the proficiency strands of the P-10 Australian Curriculum. Students develop their conceptual understanding when they undertake tasks that require them to connect mathematical concepts, operations and relations. They will learn to recognise definitions, rules and facts from everyday mathematics and data, and to calculate using appropriate mathematical processes.

### PREREQUISITES

Nil

### COURSE OUTLINE

#### Unit 1

- Topic 1: Number
- Topic 2: Representing data
- Topic 3: Graphs

#### Unit 2

- Topic 1: Managing money
- Topic 2: Time and motion
- Topic 3: Data collection

#### Unit 3

- Topic 1: Measurement
- Topic 2: Scales, plans and models
- Topic 3: Summarising and comparing data

#### Unit 4

- Topic 1: Bivariate graphs
- Topic 2: Probability and relative frequencies
- Topic 3: Loans and compound interest

### ASSESSMENT (UNITS 3 AND 4)

|                        |  |
|------------------------|--|
| Internal assessment 1: | Problem-Solving and Modelling Task (25%) |
| Internal assessment 2: | Common Internal Assessment (25%)         |
| Internal assessment 3: | Problem-Solving and Modelling Task (25%) |
| Internal assessment 4: | Internal Examination (25%)               |

### FURTHER STUDIES

Essential Mathematics is an Applied subject suited to students who are interested in pathways beyond Year 12 that lead to tertiary studies, vocational education or work. A course of study in Essential Mathematics can establish a basis for further education and employment in the fields of trade, industry, business and community services. Students will learn within a practical context related to general employment and successful participation in society, drawing on the mathematics used by various professional and industry groups.

### SUMMARY

General Mathematics is designed for students who want to extend their mathematical skills beyond Year 10 but whose future studies or employment pathways do not require calculus. It incorporates a practical approach that equips learners for their needs as future citizens. Students will learn to ask appropriate questions, map out pathways, reason about complex solutions, set up models and communicate in different forms. They will experience the relevance of mathematics to their daily lives, communities and cultural backgrounds. They will develop the ability to understand, analyse and take action regarding social issues in their world.

The major domains of General Mathematics are Number and algebra, Measurement and geometry, Statistics and Networks and matrices, building on the content of the P-10 Australian Curriculum. Learning reinforces prior knowledge and further develops key mathematical ideas, including rates and percentages, concepts from financial mathematics, linear and non-linear expressions, sequences, the use of matrices and networks to model and solve authentic problems, the use of trigonometry to find solutions to practical problems, and the exploration of real-world phenomena in statistics.

### PREREQUISITES

C in Year 10 General Mathematics

### COURSE OUTLINE

**Unit 1:** In Unit 1, students will develop mathematical understandings and skills to solve problems relating to the topics:

- Topic 1: Consumer arithmetic
- Topic 2: Shape and measurement
- Topic 3: Linear equations and their graphs.

Consumer arithmetic reviews the concepts of rate and percentage change in the context of earning and managing money and provides a fertile ground for the use of spreadsheets. Shape and measurement builds on and extends the knowledge and skills students developed in the P–10 Australian Curriculum with the concept of similarity and problems involving simple and compound geometric shapes. Students apply these skills in a range of practical contexts, including those involving three-dimensional shapes. Linear equations and their graphs uses linear equations and straight-line graphs, as well as piece-wise linear graphs and step graphs, to model and analyse practical situations.

**Unit 2:** In Unit 2, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: Applications of trigonometry
- Topic 2: Algebra and matrices
- Topic 3: Univariate data analysis.

Applications of trigonometry extends students' knowledge of trigonometry to solve practical problems involving non-right-angled triangles in both two and three dimensions, including problems involving the use of angles of elevation and depression and bearings in navigation. Algebra and matrices continues the study of algebra and introduces the new topic of matrices. Univariate data analysis develops students' ability to organise and summarise univariate data in the context of conducting a statistical investigation.

**Unit 3:** In Unit 3, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: Bivariate data analysis
- Topic 2: Time series analysis
- Topic 3: Growth and decay in sequences
- Topic 4: Earth geometry and time zones.

Bivariate data analysis introduces students to some methods for identifying, analysing and describing associations between pairs of variables, including the use of the least-squares method as a method for analysing linear associations. Time series analysis continues students' study of statistics by introducing them to the concepts and techniques of time series analysis. Growth and decay in sequences employs recursion to generate sequences that can be used to model and investigate patterns of growth and decay in discrete situations. These sequences find application in a wide range of practical situations, including modelling the growth of a compound interest investment, the growth of a bacterial population or the decrease in the value of a car over time. Sequences are also essential to understanding the patterns of growth and decay in loans and investments that are studied in detail in Unit 4. Earth geometry and time zones offers an opportunity to use contexts relevant to students.

**Unit 4:** In Unit 4, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: Loans, investments and annuities
- Topic 2: Graphs and networks
- Topic 3: Networks and decision mathematics.

Loans, investments and annuities aims to provide students with sufficient knowledge of financial mathematics to solve practical problems associated with taking out or refinancing a mortgage and making investments. Graphs and networks introduces students to the language of graphs and the ways in which graphs, represented as a collection of points and interconnecting lines, can be used to model and analyse everyday situations such as a rail or social network. Networks and decision mathematics uses networks to model and aid decision-making in practical situations.

### ASSESSMENT (UNITS 3 AND 4)

|                        |  |
|------------------------|--|
| Internal assessment 1: | Problem-Solving and Modelling Task (20%) |
| Internal assessment 2: | Examination (15%)                        |
| Internal assessment 3: | Examination (15%)                        |
| External assessment:   | Examination (50%)                        |

### FURTHER STUDIES

General Mathematics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in General Mathematics can establish a basis for further education and employment in the fields of commerce, finance, IT, social science and the arts.

# MATHEMATICAL METHODS

## 4-UNIT GENERAL COURSE

### SUMMARY

Students who undertake Mathematical Methods will see the connections between mathematics and other areas of the curriculum and apply their mathematical skills to real-world problems, become critical thinkers, innovators and problem-solvers. Through solving problems and developing models, they will appreciate that mathematics and statistics are dynamic tools that are critically important in the 21st century.

The major domains of mathematics in Mathematical Methods are Algebra, Functions, relations and their graphs, Calculus and Statistics. Topics are developed systematically, with increasing levels of sophistication, complexity and connection, and build on algebra, functions and their graphs, and probability from the P-10 Curriculum. Calculus is essential for developing an understanding of the physical world. The domain Statistics is used to describe and analyse phenomena involving uncertainty and variation. Both are the basis of developing models of the world and solving complex and abstract mathematical problems. The ability to translate written, numerical, algebraic, symbolic and graphical information from one representation to another is a vital part of learning in Mathematical Methods.

### PREREQUISITES

B- in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students will develop mathematical understandings and skills to solve problems relating to the topics:

- Topic 1: Arithmetic and geometric sequences and series 1
- Topic 2: Functions and graphs
- Topic 3: Counting and probability
- Topic 4: Exponential functions 1
- Topic 5: Arithmetic and geometric sequences and series 2.

Arithmetic and geometric sequences are introduced, and their applications are studied. Simple relationships between variable quantities are reviewed and these are used to introduce the key concepts of a function and its graph. Quadratic functions and index rules are revised. The study of inferential statistics begins in this unit with a review of the fundamentals of probability and the introduction of the concepts of conditional probability and independence. The algebraic expansion of powers of a binomial are found using the binomial theorem.

**Unit 2:** In Unit 2, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: Exponential functions 2
- Topic 2: The logarithmic function 1
- Topic 3: Trigonometric functions 1
- Topic 4: Introduction to differential calculus
- Topic 5: Further differentiation and applications 1
- Topic 6: Discrete random variables 1.

Exponential graphs are examined and their applications in a wide range of settings are explored. Logarithms are introduced, and the basic trigonometric functions are studied. Rates and average rates of change are also introduced, and this is followed by the key concept of the derivative as an 'instantaneous rate of change'. These concepts are reinforced numerically by calculating difference quotients both geometrically, as gradients of chords and tangents, and algebraically.

Calculus is developed to study the derivatives of polynomial and power functions, with applications of the derivative to curve sketching, calculating gradients and equations of tangents

(a link to linear function assumed knowledge), determining instantaneous velocities and solving optimisation problems. Discrete random variables are introduced; this supports the development of a framework for statistical inference.

**Unit 3:** In Unit 3, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: The logarithmic function 2
- Topic 2: Further differentiation and applications 2
- Topic 3: Integrals.

Logarithmic laws and definitions are developed and used. Logarithmic functions are explored graphically and algebraically. The study of calculus continues with the derivatives of exponential, logarithmic and trigonometric functions and their applications, together with some differentiation techniques and applications to optimisation problems and graph sketching. Integration, both as a process that reverses differentiation and as a way of calculating areas and the fundamental theorem of calculus, is introduced.

**Unit 4:** In Unit 4, students will develop mathematical understandings and skills to solve problems relating to:

- Topic 1: Further differentiation and application 3
- Topic 2: Trigonometric functions 2
- Topic 3: Discrete random variables 2
- Topic 4: Continuous random variables and the normal distribution
- Topic 5: Interval estimates for proportions.

The study of calculus continues with some differentiation techniques and applications to optimisation problems and graph sketching. The cosine and sine rules are established and used. Use of discrete random variables in modelling random processes involving chance and variation are studied. Continuous random variables and their applications are explored, and the normal distribution is used in a variety of contexts. The study of statistical inference in this unit is the culmination of earlier work on probability and random variables. The goal of statistical inference is to estimate an unknown parameter associated with a population using a sample of data drawn from that population. In Mathematical Methods, statistical inference is restricted to estimating proportions in two-outcome populations.

### ASSESSMENT (UNITS 3 AND 4)

|                        |  |
|------------------------|--|
| Internal assessment 1: | Problem-Solving and Modelling Task (20%) |
| Internal assessment 2: | Examination (15%)                        |
| Internal assessment 3: | Examination (15%)                        |
| External assessment:   | Examination (50%)                        |

### FURTHER STUDIES

Mathematical Methods is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Mathematical Methods can establish a basis for further education and employment in the fields of natural and physical sciences (especially physics and chemistry), mathematics and science education, medical and health sciences (including human biology, biomedical science, nanoscience and forensics), engineering (including chemical, civil, electrical and mechanical engineering, avionics, communications and mining), computer science (including electronics and software design), psychology and business.



# SPECIALIST MATHEMATICS

## 4-UNIT GENERAL COURSE

### SUMMARY

Specialist Mathematics is a subject designed for students who are good at and enjoy mathematics. It is designed to be taken with, or on completion of Mathematical Methods.

The major domains of mathematical knowledge in Specialist Mathematics are Vectors and Matrices, Real and Complex numbers, Trigonometry, Statistics and Calculus. Topics are developed systematically, with increasing levels of sophistication, complexity and connection, building on functions, calculus and statistics from Mathematical Methods, whilst vectors, complex numbers and matrices are introduced. Functions and calculus are essential for creating models of the physical world. Statistics are used to describe and analyse phenomena involving probability, uncertainty and variation. Matrices, complex numbers and vectors are essential tools for explaining abstract or complex relationships that occur in scientific and technological endeavours.

Students who undertake Specialist Mathematics will develop confidence in their mathematical knowledge and ability and gain a positive view of themselves as mathematics learners. They will gain an appreciation of the true nature of mathematics, its beauty and its power.

### PREREQUISITES

B- in Year 10 Specialist Mathematics

### COURSE OUTLINE

**Unit 1:** In Unit 1, students will develop the mathematical understandings and skills to solve problems relating to the topics:

- Topic 1: Combinatorics
- Topic 2: Vectors in a plane
- Topic 3: Introduction to proof.

Combinatorics provides techniques that are useful in many areas of mathematics, including probability and algebra. Vectors in a plane provides new perspectives for working with two-dimensional space, and serves as an introduction to techniques that will extend to three-dimensional space in Unit 3. Introduction to proof provides the opportunity to summarise and extend students' studies in deductive Euclidean geometry and is of great benefit in the study of other topics in the course, including vectors and complex numbers.

**Unit 2:** In Unit 2, students will develop the mathematical understandings and skills to solve problems relating to:

- Topic 1: Complex numbers 1
- Topic 2: Trigonometry and functions
- Topic 3: Matrices.

Complex numbers 1 introduces the complex plane, complex arithmetic and complex algebra. Trigonometry and functions builds on the nature of proof and models periodic phenomena. Matrices introduces basic operations and extends to transformations in the plane.

**Unit 3:** In Unit 3, students will develop the mathematical understandings and skills to solve problems relating to:

- Topic 1: Proof by mathematical induction
- Topic 2: Vectors and matrices
- Topic 3: Complex numbers 2.

Proof by mathematical induction continues the developmental concept of proof from Units 1 and 2. Unit 1 introduced a study of vectors with a focus on vectors in two-dimensional space.

Unit 2 introduced complex numbers; Unit 3 extends the study of complex numbers to include complex arithmetic using polar form.

In this unit, students explore applications of matrices, study three-dimensional vectors, and be introduced to vector equations and vector calculus, with the latter extending students' knowledge of calculus from Mathematical Methods. Cartesian equations and vector equations, together with equations of planes, enable students to solve geometric problems and problems involving motion in three-dimensional space.

**Unit 4:** In Unit 4, students will develop the mathematical understandings and skills to solve problems relating to:

- Topic 1: Integration and applications of integration
- Topic 2: Rates of change and differential equations
- Topic 3: Statistical inference.

The study of Integration and applications of integration and Rates of change and differential equations examine the complex processes of integration techniques. In this unit, students' previous experience working with statistics in Mathematical Methods is drawn together in the study of statistical inference for the distribution of sample means and confidence intervals for sample means. The study of differentiation and integration of functions continues, and the calculus techniques developed in this and previous topics are applied to simple differential equations in contexts found in areas such as biology and kinematics.

### ASSESSMENT (UNITS 3 AND 4)

|                        |  |
|------------------------|--|
| Internal assessment 1: | Problem-Solving and Modelling Task (20%) |
| Internal assessment 2: | Examination (15%)                        |
| Internal assessment 3: | Examination (15%)                        |
| External assessment:   | Examination (50%)                        |

### FURTHER STUDIES

Specialist Mathematics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Specialist Mathematics can establish a basis for further education and employment in the fields of science, all branches of mathematics and statistics, computer science, medicine, engineering, finance and economics.

# PHYSICAL EDUCATION

## 4-UNIT GENERAL COURSE

### SUMMARY

In Physical Education, students engage in purposeful learning, where biophysical, sociocultural or psychological subject matter is integrated with and contextualised in selected activities. Students learn experientially through an inquiry approach, initiated by questions that make connections between the subject matter and physical activity in personal, team or community contexts. Students make informed decisions relevant to specific inquiry questions and evaluate their decisions with evidence to modify and justify strategies in a selected context. Performance in physical activity requires students to demonstrate and apply their understanding of concepts and principles to evaluate and modify strategies in selected physical activities.

### PREREQUISITES

C in Year 10 Physical Education

### COURSE OUTLINE

**Unit 1:** In Unit 1, students engage with concepts, principles and strategies about two topics using the three stages of the inquiry approach. In the first stage of inquiry, students recognise and explain the concepts and principles about motor learning, functional anatomy and biomechanics through purposeful and authentic learning, about and in a selected physical activity. In the selected physical activity, students explore body and movement concepts and demonstrate specialised movement sequences and movement strategies. In the second stage, students apply concepts to specialised movement sequences and movement strategies in authentic performance environments to gather data about their personal application of motor learning, biomechanical and body and movement concepts. Students analyse and synthesise relationships between the motor learning and biomechanical requirements of the selected physical activity and their personal performance. Students then devise a motor learning and biomechanical strategy to optimise performance in the selected physical activity. In the final stage, students evaluate the effectiveness of the motor learning, biomechanical and movement strategies and justify using primary data and secondary data.

**Unit 2:** In Unit 2, students engage with concepts, principles and strategies about two topics using the three stages of the inquiry approach.

In Topic 1, the first stage of inquiry requires students to recognise and explain the concepts and principles about sport psychology through purposeful and authentic learning in and about a selected physical activity. In the selected physical activity, students explore body and movement concepts and demonstrate specialised movement sequences and movement strategies. In the second stage, students apply concepts to specialised movement sequences and movement strategies in authentic performance environments to gather data about their personal application of sport psychology and body and movement concepts. Students analyse and synthesise relationships between the sport psychology demands in the selected physical activity and personal and team performance. Students then devise a psychological strategy to optimise performance in the selected physical activity. In the final stage, students evaluate the effectiveness of the psychological and movement strategies and justify using primary data and secondary data.

In Topic 2, the first stage of inquiry requires students to recognise and explain the concepts and principles about equity in physical

activity. In a range of physical activities, students explore barriers and enablers to gather data about the influence on equity. In the second stage, students analyse data to synthesise relationships between the barriers and enablers in physical activity, and engagement and performance to identify an equity dilemma. Students then devise an equity strategy in response to the dilemma to optimise engagement and performance in physical activity. In the final stage, students evaluate the effectiveness of the equity strategy on engagement and performance and justify using primary data and secondary data.

**Unit 3:** In Unit 3, students engage with concepts, principles and strategies about two topics using the three stages of the inquiry process.

In Topic 1: Tactical awareness, the first stage of inquiry requires students to recognise and explain the concepts and principles about dynamic systems of motor learning and tactical awareness through purposeful and authentic learning about and in a selected physical activity. In the selected physical activity, students explore body and movement concepts and demonstrate specialised movement sequences and movement strategies. In the second stage, they apply concepts to specialised movement sequences and movement strategies in authentic performance environments to gather data about their personal application of tactical and body and movement concepts. Students analyse and synthesise relationships between the constraints of movement strategies and their personal performance. Students then devise a tactical strategy to optimise performance of movement strategies in the selected physical activity. In the final stage, students evaluate the effectiveness of the tactical and movement strategies and justify using primary data and secondary data.

In Topic 2: Ethics and integrity, the first stage of inquiry requires students to recognise and explain the concepts and principles about ethics and integrity in physical activity. In a range of physical activities, students explore the factors that influence fair play, ethical behaviour and integrity to gather data about engagement. In the second stage, they use the ethical decision-making framework to analyse data and synthesise relationships between the factors that influence engagement in physical activity to identify an ethical dilemma. Students then devise an ethics strategy in response to the dilemma to optimise engagement in physical activity. In the final stage, students evaluate the effectiveness of the ethics strategy to optimise integrity and engagement and justify using primary data and secondary data.

**Unit 4:** In Unit 4, students engage with concepts, principles and strategies about energy, fitness, training and physical performance using the three stages of the inquiry approach.

In the first stage of inquiry, students recognise and explain the concepts and principles about energy, fitness and training through purposeful and authentic learning about and in a selected physical activity. In the selected physical activity, students explore body and movement concepts and demonstrate specialised movement sequences and movement strategies. In the second stage, students apply concepts to specialised movement sequences and movement strategies in authentic performance environments to gather data about their personal application of energy, fitness and training concepts. Students analyse and synthesise relationships between the energy and fitness demands of the selected physical activity and their personal performance. Students then devise a competition-phase training strategy to optimise performance

in the selected physical activity. In the final stage, students evaluate the effectiveness of the competition-phase training strategy and movement strategies and justify using primary and secondary data.

#### **ASSESSMENT (UNITS 3 AND 4)**

|                        |                              |
|------------------------|------------------------------|
| Internal assessment 1: | Project - folio (25%)        |
| Internal assessment 2: | Investigation - report (20%) |
| Internal assessment 3: | Project - folio (30%)        |
| External assessment:   | Examination (25%)            |

#### **FURTHER STUDIES**

Physical Education is a General subject suited to students who are interested in pathways that lead to tertiary studies, vocational education or work. A course of study in Physical Education can establish a basis for further education and employment in the fields of exercise science, biomechanics, the allied health professions, psychology, teaching, sport journalism, sport marketing and management, sport development and coaching.

## FITNESS VET COURSE

## CERTIFICATE III IN FITNESS - SIS30315 WITH CERTIFICATE II IN SPORT & RECREATION EMBEDDED – SIS20115

### REGISTERED TRAINING ORGANISATION

Binnacle Training (RTO Code: 31319)

### SUMMARY

Fitness – Certificate III (SIS30315) is an externally-administered course run through Villanova College. The providing agency is Binnacle Education and accredited staff at Villanova will deliver the course under Binnacle’s supervision. Students will be provided with every opportunity to complete the certificate as per the rights and obligations outlined in the enrolment process and VET information provided to students. Students successfully achieving all qualification requirements will be provided with a qualification and record of results. Students who achieve at least one unit (but not the full qualification) will receive a Statement of Attainment. The primary goal of this course is to qualify students to be able to work in the fitness, sport and recreation industry under supervision. This course does not guarantee employment but is a stepping stone to the Certificate IV, which allows students to work as a personal trainer.

### PREREQUISITES

While Fitness – Certificate III SIS30315 has no specific subject prerequisites, it is required that students taking this course be prepared to be actively involved in all aspects of the program and must have a commitment to participate fully in all units of work, sometimes outside of scheduled class times.

There is an additional cost of \$330 that is paid to Binnacle to cover the cost of the course prior to students commencing. This cost is current but may be subject to change.

### COURSE OUTLINE

Students will explore the various facets of the fitness industry from the provider’s perspective, ranging from legal issues, customer service and community fitness onto program design and implementation. They will help deliver sport and recreation programs within the school community in areas as diverse as assisting with sporting carnivals, helping with Junior School Sport and administering lunch time physical activities. Sporting activities will be incorporated into the units to help develop a student’s understanding of the specific topic. An example of this would be the undertaking of a modified weights program when studying anatomy and physiology. Students will also complete a Certificate II in Sport and Recreation, which is embedded in the course.

#### SIS30315 Certificate III Fitness & SIS20115 Certificate II in Sport and Recreation Course Schedule – Year 1

|            |  |
|------------|--|
| HLTWHS001  | Participate in workplace health and safety                     |
| BSBRK401   | Identify risk and apply risk management processes              |
| SISXCCS001 | Provide quality service  |
| SISXIND001 | Work effectively in sport, fitness and recreation environments |
| SISXIND002 | Maintain sport, fitness and recreation industry knowledge      |
| SISXFAC001 | Maintain equipment for activities                              |

|             |  |
|-------------|--|
| SISFFIT011  | Instruct approved community fitness programs     |
| SISSSPT303A | Conduct basic warm-up and cool-down programs     |
| BSBWOR202   | Organise and complete daily work activities      |
| SISXCAI002  | Assist with daily activity sessions              |
| SISXEMR001  | Respond to emergency situations                  |
| FSKLRG11    | Use routine strategies for work-related learning |

#### SIS30315 Certificate III Fitness & SIS20115 Certificate II in Sport and Recreation Course Schedule – Year 2

|            |  |
|------------|--|
| SISFFIT002 | Provide health screening and fitness orientation                         |
| SISFFIT002 | Recognise and apply exercise considerations for specific populations     |
| SISFFIT003 | Instruct fitness programs  |
| SISFFIT004 | Incorporating anatomy and physiology principles into fitness programming |
| SISFFIT005 | Provide healthy eating information                                       |
| SISFFIT014 | Instruct exercise to older clients                                       |
| SISFFIT006 | Conduct fitness appraisals   |

### ASSESSMENT

All students will be assessed on their performance in various modules by the teachers at Villanova before sitting a number of assessment tasks that are administered by Binnacle and electronically logged with them at the end of each term.

Please note there is a significant amount of time required outside of school time in Year 12, where a student will train an adult for eight sessions and document their progress as part of the “Fitness Training One on One” requirements.

### FURTHER STUDIES

Certificate III Fitness is a nationally recognised qualification which can be used towards further study to work as a personal trainer. Students who complete the accreditation often have an interest in the sport, recreational and training industries and many move into tertiary study to enhance their learning in a chosen field.

### IMPORTANT PROGRAM DISCLOSURE STATEMENT

This Subject Outline is to be read in conjunction with Binnacle Training’s Program Disclosure Statement (PDS). The PDS sets out the services and training products Binnacle Training provides and those services carried out by the ‘Partner School’ (i.e. the delivery of training and assessment services).

To access Binnacle’s PDS, visit: [www.binnacletraining.com.au/rto.php](http://www.binnacletraining.com.au/rto.php) and select ‘Subject Selection’.

Printed May 2019; correct at time of publication but subject to change.



# STUDY OF RELIGION

## 4-UNIT GENERAL COURSE

### SUMMARY

Study of Religion is the investigation and study of religious traditions and how religion has influenced, and continues to influence, people's lives. As religions are living traditions, a variety of religious expressions exist within each tradition. Religious beliefs and practices also influence the social, cultural and political lives of people and nations. Students become aware of their own religious beliefs, the religious beliefs of others, and how people holding such beliefs are able to co-exist in a pluralist society. In this subject, students study the five major world religions of Judaism, Christianity, Islam, Hinduism and Buddhism; and Australian Aboriginal spiritualities and Torres Strait Islander religion. These are explored through sacred texts and religious writings that offer insights into life, and the rituals that mark significant moments and events in the religion itself and the lives of adherents. Sacred texts, religious writings and rituals provide the foundations for understanding religious ethics and the ways religion functions in society and culture.

### PREREQUISITES

C in Year 10 Religious Education

### COURSE OUTLINE

**Unit 1:** In Unit 1, students are introduced to the five major world religions of Judaism, Christianity, Islam, Hinduism and Buddhism, and to Australian Aboriginal spiritualities, as a foundation to the course of study. Through a study of sacred texts and religious writings, students explore how these texts offer insights into life, provide guidance for living, and may express a relationship between a people and a higher being. As Unit 1 progresses, there is a particular focus on the sacred texts of Judaism, Christianity and Islam.

The Unit 1 topics are: Topic 1: Sacred texts and Topic 2: Abrahamic traditions.

**Unit 2:** In Unit 2, students build on their understandings of Judaism, Christianity, Islam, Hinduism, Buddhism, Australian Aboriginal spiritualities and Torres Strait Islander religion as they investigate religious rituals that mark significant moments and events in the religion itself and in the lives of adherents. The rituals are studied under two categories: lifecycle rituals and calendrical rituals. Lifecycle rituals mark rites of passage in the biological and sociological cycle of human life; calendrical rituals occur at a particular time of the week, month or year or mark a period of time since a significant event.

The Unit 2 topics are: Topic 1: Lifecycle rituals and Topic 2: Calendrical rituals.

**Unit 3:** In Unit 3, students continue to build on Units 1 and 2 to examine the religious–ethical principles that are evident within the traditions of Judaism, Christianity, Islam, Hinduism and Buddhism. They are required to understand the religious foundations that form and inform ethical principles within different religious traditions. Students apply religious–ethical principles and theories to real life contexts and evaluate how they influence people, society and culture.

The Unit 3 topics are Topic 1: Social ethics and Topic 2: Ethical relationships.

**Unit 4:** In Unit 4, students consider how religion affects and influences people's understanding of culture, history, politics and social interaction. Within this context, issues of rights and religion–state relationships are considered. Students investigate how religions seek to shape or are shaped by their social, cultural and political contexts. They examine how the dynamic of religion in different times and places has interacted with the nation–state, as well as religion's contributions to society and culture.

The Unit 4 topics are Topic 1: Religion and the nation–state and Topic 2: Religion and human rights.

### ASSESSMENT (UNITS 3 AND 4)

|                        |  |
|------------------------|--|
| Internal assessment 1: | Examination (25%)                      |
| Internal assessment 2: | Investigation – inquiry response (25%) |
| Internal assessment 3: | Investigation – inquiry response (25%) |
| External assessment:   | Examination (25%)                      |

### FURTHER STUDIES

Study of Religion is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Study of Religion can establish a basis for further education and employment in such fields as anthropology, the arts, education, journalism, politics, psychology, religious studies, sociology and social work.

# RELIGION AND ETHICS

## 4-UNIT APPLIED COURSE

### SUMMARY

A sense of purpose and personal integrity are essential for participative and contributing members of society. This Applied syllabus provides for a course of study that encourages students to explore their personal values and life choices and the ways in which these are related to their beliefs. Religion and Ethics helps students understand the personal, relational and spiritual perspectives of human experience. A search for meaning assists students from different cultural, social, linguistic and economic backgrounds to learn about and reflect on the richness of religious and ethical worldviews.

### PREREQUISITES

Nil

### COURSE OUTLINE

Unit 1: Religions of the World- Elective 9 and The Australian Scene - Elective 1

Unit 2: Spirituality – Elective 13 and Sacred stories – Elective 11

Unit 3: Heroes and Role Models – Elective 4 and Social justice Elective 12

Unit 4: Ethics and Morality - Elective 2 and Meaning and Purpose – Elective 6

### ASSESSMENT (UNITS 3 AND 4)

|                        |                                 |
|------------------------|---------------------------------|
| Internal assessment 1: | Investigation Informative Essay |
| Internal assessment 2: | Examination Short Response      |
| Internal assessment 3: | Investigation                   |
| External assessment:   | Extended Response to Stimulus   |

### FURTHER STUDIES

A course of study in Religion and Ethics can establish a basis for further education and employment in any field, as it helps students develop the skills and personal attributes necessary for engaging efficiently, effectively and positively in future life roles. It provides them with opportunities to gain knowledge and understanding of themselves as human beings, to clarify their personal beliefs and ethical values, and to assess their personal choices, vision and goals. It helps students develop an understanding of themselves in the context of their family, their community and the workplace. The focus on citizenship, the sense of community and service, ethical principles, moral understanding and reasoning, and the responsibilities of the individual within the community provide students with skills and attitudes that contribute to lifelong learning, and a basis for engaging with others in diverse settings, including further education and the workforce.

### Flexible Delivery Option

The College recognises that some students may wish to study a broader course of subjects in order to maximise their academic performance across Years 11 and 12. If a student wishes to study seven (7) subjects, the College may permit the study of Religion and Ethics to be completed flexibly; this involves two (2) lessons of face-to-face delivery and the equivalent of two (2) lessons studied in an online environment (or similar) in their own time. If permitted, the student will not select the Academic Coaching Program (ACP) when choosing subjects.

Please Note: The studying of this option is by negotiation with the Dean of Teaching and Learning.

# BIOLOGY

## 4-UNIT GENERAL COURSE

### SUMMARY

Biology is the study of life in its many manifestations. We hope that by studying this subject, students will develop a sense of wonder and curiosity about life and respect for all living things and the environment. The course encompasses the study of the origin, development, diversity, functioning and evolution of living systems and the consequences of intervention in those systems. Students will develop an understanding of how biological systems interact and are interrelated, the flow of matter and energy through and between these systems and the processes by which they persist and change.

Studying Biology introduces the students to the incredible diversity of plants and animals on earth and their interactions with each other and with the non-living parts of their environment and students will also explore the structural, physiological and behavioural adaptations of organisms and the body processes which function to help maintain a living organism. Students studying this subject would typically need to dedicate a minimum of three (3) to four (4) hours a week outside class-time in order to realise a worthwhile outcome.

### PREREQUISITES

B- in Year 10 Biology

B- in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students explore the ways biology is used to describe and explain how the structure and function of cells and their components are related to the need to exchange matter and energy with their immediate environment. An understanding of the structure and function of cells is essential to appreciate the processes vital for survival. Students investigate the structure and function of cells and multicellular organisms. They examine the structure and function of plant and animal systems at cell and tissue levels in order to analyse how they facilitate the efficient provision or removal of materials.

Topic 1: Cells as the basis of life

Topic 2: Multicellular organisms

**Unit 2:** In Unit 2, students explore the ways biology is used to describe and explain the responses of homeostatic mechanisms to stimuli and the human immune system. An understanding of personal and communal responses is essential to appreciate personal lifestyle choices and community health. Students develop scientific skills and conceptual understanding in homeostasis, the immune system and the relationships between global, community and individual immunity. They examine geographical and population data to analyse strategies that may have personal and communal consequences.

Topic 1: Homeostasis

Topic 2: Infectious diseases

**Unit 3:** In Unit 3, students explore the ways biology is used to describe and explain: the biodiversity within ecosystems; a range of biotic and abiotic components; species interactions; adaptations of organisms to their environment; principles of population dynamics; and how classification systems are used to identify organisms and aid scientific communication. An understanding of the structure of ecosystems, the processes involved in the movement of energy and matter in ecosystems and how environmental factors limit populations is essential to appreciate the dynamics, diversity and underlying unity of these systems. Students investigate the interactions within and between species, and the interactions between abiotic and biotic components of ecosystems. They also investigate how measurements of abiotic factors, population numbers, species diversity and descriptions of interactions between species can form the basis for spatial and temporal comparisons between ecosystems. They examine and analyse data collected from fieldwork to understand the interconnectedness of organisms, the physical environment and the impact of human activity.

Topic 1: Describing biodiversity

Topic 2: Ecosystem dynamics

Field Studies is a mandatory aspect of the course and to complete this assessment, students are required to participate in a three-day camp on Stradbroke Island.

**Unit 4:** In Unit 4, students explore the ways biology is used to describe and explain the cellular processes and mechanisms that ensure the continuity of life. An understanding of the processes and mechanisms of how life on Earth has persisted, changed and diversified over the last 3.5 billion years is essential to appreciate the unity and diversity of life.

Students investigate different factors that affect cellular processes and gene pools. They examine different patterns of inheritance and the genetic basis of the theory of evolution through natural selection to analyse the use of predictive models in decision-making.

Topic 1: DNA, genes and the continuity of life

Topic 2: Continuity of life on Earth

### ASSESSMENT (UNITS 3 AND 4)

|                        |                              |
|------------------------|------------------------------|
| Internal assessment 1: | Data Test (10%)              |
| Internal assessment 2: | Student experiment (20%)     |
| Internal assessment 3: | Research Investigation (20%) |
| External assessment:   | Examination (50%)            |

### FURTHER STUDIES

Biology is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Biology can establish a basis for further education and employment in the fields of health, medicine, forensics, veterinary, food and marine sciences, agriculture, biotechnology, environmental rehabilitation, biosecurity, quarantine, conservation and sustainability.

# CHEMISTRY

## 4-UNIT GENERAL COURSE

### SUMMARY

Chemistry is the study of materials and their properties and structure. The subject aims to develop students' interest in and appreciation of chemistry and its usefulness in helping to explain phenomena and solve problems encountered in their everchanging world. Students will explore the theories and models used to describe, explain and make predictions about chemical systems, structures and properties and learn to understand factors that affect chemical systems and how those systems can be controlled to produce desired products.

In this subject, students will begin to understand and apply chemical concepts, models, procedures and processes for the management of the planet's limited resources that could be crucial to our survival. The study of Chemistry also provides students with a means to further develop their understanding of the world around them, a way of obtaining useful knowledge and skills and a platform for further study. Students studying this subject would typically need to dedicate a minimum of three (3) to four (4) hours a week outside class-time in order to realise a worthwhile outcome.

Students should accompany this course with Mathematical Methods.

### PREREQUISITES

B- in Year 10 Chemistry

B- in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students relate matter and energy in chemical reactions as they consider the breaking and reforming of bonds as new substances are produced. The properties of a material depend on, and can be explained by, the material's structure. A range of models at the atomic and molecular scale enable explanation and prediction of the structure of materials, and how this structure influences properties and reactions.

Students conduct investigations to develop their understanding of patterns in the properties and composition of materials. They explore the structure of materials by describing physical and chemical properties at the macroscopic scale and use models of structure and primary bonding at the atomic and subatomic scale to explain these properties. They are introduced to the mole concept as a means of quantifying matter in chemical reactions.

Topic 1: Properties and structure of atoms

Topic 2: Properties and structure of materials

Topic 3: Chemical reactions – reactants, products and energy change

**Unit 2:** In Unit 2, students develop their understanding of the physical and chemical properties of materials including gases, water, aqueous solutions, acids and bases. Students explore the characteristic properties of water that make it essential for physical, chemical and biological processes on Earth, including the properties of aqueous solutions. They investigate and explain the solubility of substances in water and compare and analyse a range of solutions. They learn how rates of reaction can be measured and altered to meet particular needs and use models of energy transfer and the structure of matter to explain and predict changes to rates of reaction. Students gain an understanding of how to control the rates of chemical reactions, including through the use of a range of catalysts.

Students conduct investigations of chemical reactions, including the prediction and identification of products, and the measurement of the rate of reaction. They investigate the behaviour of gases and use the kinetic theory to predict the effects of changing temperature, volume and pressure in gaseous systems.

Topic 1: Intermolecular forces and gases

Topic 2: Aqueous solutions and acidity

Topic 3: Rates of chemical reactions

**Unit 3:** In Unit 3, students explore the reversibility of reactions in a variety of chemical systems at different scales; acid-base equilibrium systems and their applications; the principles of oxidation and reduction reactions; and the production of electricity from electrochemical cells. Processes that are reversible will respond to a range of factors and can achieve a state of dynamic equilibrium, while contemporary models can be used to explain the nature of acids and bases, and their properties and uses.

Students conduct investigations on electrochemical cells and volumetric analysis applications. They examine qualitative and quantitative data about acids, equilibrium and redox to analyse trends and draw conclusions.

Topic 1: Chemical equilibrium systems

Topic 2: Oxidation and reduction

**Unit 4:** In Unit 4, students explore the ways in which models and theories relate to chemical synthesis, structure and design, and associated applications; and the ways in which chemistry contributes to contemporary debate regarding current and future uses of local, regional and international resources. Students focus on the principles and application of chemical synthesis, particularly in organic chemistry, and consider where and how functional groups can be incorporated into already existing carbon compounds in order to generate new substances with properties that enable them to be used in a range of contexts. Current and future applications of chemistry include the development of specialised techniques to create or synthesise new substances to meet the specific needs of society, such as pharmaceuticals, fuels, polymers and nanomaterials.

Topic 1: Properties and structure of organic materials

Topic 2: Chemical synthesis and design

### ASSESSMENT

Internal assessment 1:

Data Test (10%)

Internal assessment 2:

Student experiment (20%)

Internal assessment 3:

Research Investigation (20%)

External assessment:

Examination (50%)

### FURTHER STUDIES

Chemistry is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Chemistry can establish a basis for further education and employment in the fields of health, medicine, pharmacy, forensics, veterinary, sports science, biotechnology.



# PHYSICS

## 4-UNIT GENERAL COURSE

### SUMMARY

Physics is about studying the physical world around us. It looks to create models and theories which allow us to explain the things we see, and which also allow us to predict and control events in the physical world. In the Physics course students study motion, electricity, electronics, nuclear energy and light. All of these have similar application to our everyday world. A study of physics is also about the historical development of the theories of physics. This allows the student to appreciate the unfolding nature of knowledge in the area of science, as well as the significance of the great human endeavour which is scientific enquiry.

Physics is the science underlying much modern technology. Computers, skyscrapers, bridges and jet aircraft are a few examples of physics in action. Through a study of Physics students should come to understand the principles behind some of these technologies, but in addition to such practical knowledge, Physics opens the mind to consideration of some of the bigger questions: What is matter? What can we learn about the fundamental particles of the universe? What is scientific theory?

The course is designed for the serious, committed student and it is difficult to succeed without daily study. At least 30 minutes study each day is necessary for continued success. Students succeed best if they are prepared to work beyond the set homework or reading, and if they accept responsibility for their own learning and their contribution to the work of the class group.

Students should accompany this course with Mathematical Methods.

### PREREQUISITES

B- in Year 10 Physics

B- in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students explore the ways Physics is used to describe, explain and predict the energy transfers and transformations that are pivotal to modern industrial societies. An understanding of heating processes, nuclear reactions and electricity is essential to appreciate how global energy needs are met. Students investigate heating processes, apply the nuclear model of the atom to investigate radioactivity, and learn how nuclear reactions convert mass into energy. They examine the movement of electrical charge in circuits and use this to analyse and design electrical circuits.

**Unit 2:** In Unit 2, students develop an appreciation of how an understanding of motion and waves can be used to describe, explain and predict a wide range of phenomena. Students describe linear motion in terms of displacement, velocity, acceleration and time data, and examine the relationships between force, momentum and energy for interactions in one dimension. Students also investigate common wave phenomena, using waves on springs, sound waves and consideration of seismic waves. They compare the behaviour of these waves with the behaviour of light, leading to an explanation of light phenomena, including constructive and destructive interference, and diffraction, in terms of a wave model.

Topic 1: Linear motion and force

Topic 2: Waves

**Unit 3:** In Unit 3, students develop a deeper understanding of motion and its causes by using Newton's laws of motion and the gravitational field model to analyse motion on inclined planes, and the motion of projectiles and satellites. Field theories have enabled physicists to explain a vast array of natural phenomena and have contributed to the development of technologies that have changed the world, including electrical power generation and distribution systems, artificial satellites and modern communication systems. Students develop their understanding of field theories of gravity and electromagnetism through investigations of motion and electromagnetic phenomena. Finally, they will investigate the production of electromagnetic waves.

Topic 1: Gravity and motion

Topic 2: Electromagnetism

**Unit 4:** In Unit 4, students examine observations of relative motion, light and matter that could not be explained by classical physics theories and investigate how the shortcomings of existing theories led to the development of the special theory of relativity and the quantum theory of light and matter. The development of quantum theory and the theory of relativity fundamentally changed our understanding of how nature operates and led to the development of a wide range of new technologies, including those that revolutionised the storage, processing and communication of information. Students evaluate the contribution of the quantum theory of light to the development of the quantum theory of the atom and examine the Standard Model of particle physics and how it relates to the Big Bang theory.

Topic 1: Special relativity

Topic 2: Quantum theory

Topic 3: The standard Model

### ASSESSMENT

|                        |                              |
|------------------------|------------------------------|
| Internal assessment 1: | Data Test (10%)              |
| Internal assessment 2: | Student experiment (20%)     |
| Internal assessment 3: | Research Investigation (20%) |
| External assessment:   | Examination (50%)            |

### FURTHER STUDIES

Physics is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Physics can establish a basis for further education and employment in the fields of science, engineering, medicine and technology. Physics is often recommended for any trade course or apprenticeship which involves electricity or electronics.

# EARTH AND ENVIRONMENTAL SCIENCE

## 4-UNIT GENERAL COURSE

### SUMMARY

Earth and Environmental Science provides opportunities for students to engage with the dynamic interactions in and between four systems: geosphere, hydrosphere, atmosphere and biosphere. The subject aims to develop students' interest in Earth and environmental science and their appreciation of how this multidisciplinary knowledge can be used to understand contemporary issues. Students will explore topics relating to the Earth as a dynamic planet, consisting of four interacting systems, and appreciate the complex interactions and processes that continually change Earth systems over a range of timescales. This subject will suit any student with a passion for environmental issues and the future of the planet.

Earth and Environmental Science is a course of study consisting of four units. Subject matter, learning experiences and assessment increase in complexity from Units 1 and 2 to Units 3 and 4. Students studying this subject would typically need to dedicate a minimum of three (3) to four (4) hours a week outside class-time in order to realise a worthwhile outcome.

### PREREQUISITES

C in Year 10 Earth and Environmental Science  
C in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students explore the ways Earth and Environmental Science describes and explains Earth processes and phenomena that occur in different Earth systems and how they are interrelated. An understanding of Earth processes is essential to appreciate the significance of Earth's four systems: geosphere, atmosphere, hydrosphere and biosphere. Students investigate phenomena associated with Earth systems and processes. They examine relevant concepts, models, principles and theories to analyse common past and present Earth features, processes and phenomena.

Topic 1: Earth systems and models

Topic 2: Development of the geosphere

Topic 3: Development of the atmosphere and hydrosphere

**Unit 2:** In Unit 2, students explore the ways Earth and Environmental Science is used to describe and explain energy transfer and transformation in Earth systems. An understanding of the movement of energy between systems is essential to appreciate the importance of energy to control processes below and above the Earth's surface. Students conduct experiments and investigate different modes of energy transfer within systems and use models to predict the characteristics of systemic ocean currents, different sources of energy, and how greenhouse gases reflect or scatter infrared radiation leading to the greenhouse effect. They examine synoptic charts, satellite images and climatic data to analyse primary data to make predictions about weather patterns.

Topic 1: Energy for Earth processes

Topic 2: Energy for atmospheric and hydrologic processes

Topic 3: Energy for biogeochemical processes

**Unit 3:** In Unit 3, students explore the ways Earth and Environmental Science is used to describe and explain differences between renewable and non-renewable Earth resources and how their extraction, use, consumption and disposal affect Earth systems. An understanding of Earth resources is essential to appreciate the need for sustainable sources to maintain quality of everyday life, balanced with the need to limit the effect that extraction and use will have on different Earth systems. Students conduct experiments and investigations about Earth resources. They examine case studies to analyse secondary data and make decisions about the viability of using renewable and non-renewable Earth resources using an 'ecological footprint'.

Topic 1: Use of non-renewable Earth resources

Topic 2: Use of renewable Earth resources

**Unit 4:** In Unit 4, students explore the ways Earth and Environmental Science is used to describe and explain the cause and effect of naturally occurring Earth hazards and the ways they are affected by Earth systems. An understanding of the causes of naturally occurring hazards is essential to appreciate their impacts and the development of management and mitigation strategies. Students design and conduct experiments and investigations to collect primary and secondary data about Earth hazards and associated processes and techniques. They examine ways in which human activities can contribute to the frequency, magnitude and intensity of Earth hazards. This unit focuses on the timescales at which the effects of natural and human-induced change are apparent, and ways in which scientific data is used to provide strategic direction for the mitigation of Earth hazards and environmental management decisions.

Topic 1: The cause and impact of Earth hazards

Topic 2: The cause and impact of global climate change

### ASSESSMENT (UNITS 3 AND 4)

|                        |                              |
|------------------------|------------------------------|
| Internal assessment 1: | Data Test (10%)              |
| Internal assessment 2: | Student experiment (20%)     |
| Internal assessment 3: | Research Investigation (20%) |
| External assessment:   | Examination (50%)            |

### FURTHER STUDIES

Earth and Environmental Science is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Earth and Environmental Science can establish a basis for further education and employment in the fields of geoscience, soil science, agriculture, marine science, environmental rehabilitation, urban planning, ecology, natural resource management, wildlife, environmental chemistry, conservation and ecotourism.

**SUMMARY**

Geography teaches us about the significance of 'place' and 'space' in understanding our world. These two concepts are foundational to the discipline, with the concepts of environment, interconnection, sustainability, scale and change building on this foundation. By observing and measuring spatial, environmental, economic, political, social and cultural factors, geography provides a way of thinking about contemporary challenges and opportunities.

Teaching and learning in Geography are underpinned by inquiry, through which students investigate places in Australia and across the globe. When students think geographically, they observe, gather, organise, analyse and present data and information across a range of scales.

In Geography, students engage in a range of learning experiences that develop their geographical skills and thinking through the exploration of geographical challenges and their effects on people, places and the environment. Students are exposed to a variety of contemporary problems and challenges affecting people and places across the globe, at a range of scales. These challenges include responding to risk in hazard zones, planning sustainable places, managing land cover transformations and planning for population change.

This course of study enables students to appreciate and promote a more sustainable way of life. Through analysing and applying geographical knowledge, students develop an understanding of the complexities involved in sustainable planning and management practices. Geography aims to encourage students to become informed and adaptable, so they develop the skills required to interpret global concerns and make genuine and creative contributions to society. It contributes to their development as global citizens who recognise the challenges of sustainability and the implications for their own and others' lives.

**PREREQUISITES**

C in Year 10 Geography

**COURSE OUTLINE**

**Unit 1:** In Unit 1, students develop an understanding of how natural and ecological hazards represent potential sources of harm to human life, health, income and property, and how such hazards may affect elements of the built and natural environments.

Through two case studies, students investigate the risk/s posed by specific hazards in recognised hazard zones and analyse the vulnerability of local communities and identify ways to respond. Students propose action to eliminate or minimise harm to people and the environment in ecological hazard zones.

The use of technologies (including spatial technology) is an integral part of learning for this unit and allows students to develop a range of transferable skills necessary to research, manipulate and represent data.

**Unit 2:** In Unit 2, students develop an understanding of the challenges of sustainable development for remote, rural and urban places in Australia and a megacity in the developing world. Through fieldwork and a case study, students investigate the geographical processes and interactions over time and space that have resulted in challenges for places in Australia and megacities in developing countries. Students propose action to

improve the sustainability and liveability for a place in Australia.

Fieldwork plays a central role in Topic 1 of this unit. Through experiential learning, students develop a range of geographic skills necessary to collect, manipulate and explain the meaning of data. Through this field study, students understand that every place, including their own, is faced with the challenge of planning for a more sustainable and liveable future.

**Unit 3:** In Unit 3, students develop an understanding of changes to the biophysical environment over time, with a particular focus on land cover transformation and climate change. Through a case study and fieldwork, students investigate the geographical processes, natural and anthropogenic, that have resulted in change to Earth's land cover and climate change and the resulting impacts and challenges posed at global, regional and local scales. Students propose action for sustainable management of land cover change for a fieldwork location.

Fieldwork plays a central role in Topic 2 of this unit. Through experiential learning, students apply a range of geographic skills to collect, manipulate and explain the meaning of data. Through this field study, students understand that managing land cover change at the local level is required for resilient and sustainable futures.

**Unit 4:** In Unit 4, students develop an understanding of population change, movement and distribution over space and time, and how governments, organisations and individuals respond to the challenges posed by demographic change.

Through a geographic inquiry and a case study, students investigate, using demographic concepts and models, the key dynamics of populations and the impacts of demographic change on places of origin and destination at global, regional and local scales. Students propose action for sustainable management of a challenge posed by demographic change for a place in Australia.

The use of data and spatial information and communication technologies is integral to this unit. It contributes to students' development as global citizens who recognise the challenges of population change and implications for managing these changes.

**ASSESSMENT (UNITS 3 AND 4)**

Internal assessment 1: Examination – combination response (25%)

Internal assessment 2: Investigation - field report (25%)

Internal assessment 3: Investigation - data report (25%)

External assessment: Examination (25%)

**FURTHER STUDIES**

Geography is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Geography can establish a basis for further education and employment in the fields of urban and environmental design, planning and management; biological and environmental science; conservation and land management; emergency response and hazard management; oceanography, surveying, global security, economics, business, law, engineering, architecture, information technology, and science. These pathways draw on the skills acquired through understanding and using spatial technologies.

# LEGAL STUDIES

## 4-UNIT GENERAL COURSE

### SUMMARY

Legal Studies focuses on the interaction between society and the discipline of law. Students study the legal system and how it regulates activities and aims to protect the rights of individuals, while balancing these with obligations and responsibilities. An understanding of legal processes and concepts enables citizens to be better informed and able to constructively question and contribute to the improvement of laws and legal processes. This is important as the law is dynamic and evolving, based on values, customs and norms that are challenged by technology, society and global influences.

Knowledge of the law enables students to have confidence in approaching and accessing the legal system and provides them with an appreciation of the influences that shape the system. Legal knowledge empowers students to make constructive judgments on, and knowledgeable commentaries about, the law and its processes. Students examine and justify viewpoints involved in legal issues, while also developing respect for diversity. Legal Studies satisfies interest and curiosity as students question, explore and discuss tensions between changing social values, justice and equitable outcomes.

Legal Studies enables students to appreciate how the legal system is relevant to them and their communities. The subject enhances students' abilities to contribute in an informed and considered way to legal challenges and change, both in Australia and globally.

### PREREQUISITES

C in Year 10 Legal Studies

### COURSE OUTLINE

**Unit 1:** In Unit 1, students are introduced to the Australian legal system, the sources of law, and the roles of parliament and the courts. The unit focuses on legal principles and criteria such as just and equitable outcomes. Students will consider how criminal law attempts to safeguard individuals' right to freedom from interference, with society's need for order. They examine the consequences of alleged criminal behaviour in terms of trial processes, punishment and sentences.

Where appropriate and possible, current contexts based on relevant and contemporary issues are used in this unit. Examples of issues include acts causing injury or death; property offences such as extortion and theft, wilful damage (for example, graffiti and arson), and environmental pollution; cybercrime; business, credit card and social security fraud and deception; drug and public order offences and traffic and vehicle regulatory offences.

**Unit 2:** In Unit 2, students consider legal principles within the Australian and Queensland civil justice systems. They develop an understanding that civil law regulates the rights and responsibilities that exist between individuals, groups, organisations and governments. They explore dispute resolution methods, including judicial determination and alternatives in and out of courts. Through a consideration of contemporary cases and legal issues, students evaluate the effectiveness of civil law and how it affects individuals within society.

**Unit 3:** In Unit 3, students examine the complexities of the Australian legal system and its capacity to deal with the diversity of competing needs. They explore the role of legal institutions and law-making bodies in creating laws that reflect the views of society. Students consider the range of forces that create catalysts for change and reform, and how laws are changed or reformed to reflect shifting societal demands. This unit encourages and informs critical thinking about Australian laws, and the importance of society and individuals engaging in law-making processes.

Students will study law, governance and change through relevant contemporary issues involving matters of governance and law reform. Examples of issues could arise from areas, such as family law, technology law, criminal law, counter-terrorism laws, employment law and corporate law.

**Unit 4:** In Unit 4, students consider concepts, principles and contemporary issues studied in previous units to consider fundamental human rights concepts and analyse Australia's participation within the global community. They recognise how human rights create challenges in national and international contexts, and for minority groups, and examine the impact of international law on the Australian legal system and those who are subject to it.

This unit features contemporary contexts involving human rights matters in Australia or where Australia has a current role or interest internationally. Examples of issues include:

- Australian Aboriginal peoples' and Torres Strait Islander peoples' access to health and other community services
- parents' and children's human rights in surrogacy and artificial conception agreements
- the right to marry and create a family
- people smuggling and the treatment of asylum seekers
- war and peace issues, such as the Geneva Conventions and peacekeeping forces
- environmental issues, such as climate change and the rights of future generations.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                     |
|------------------------|---------------------|
| Internal assessment 1: | Examination (25%)   |
| Internal assessment 2: | Investigation (25%) |
| Internal assessment 3: | Investigation (25%) |
| External assessment:   | Examination (25%)   |

### FURTHER STUDIES

Legal Studies is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Legal Studies can establish a basis for further education and employment in the fields of law, law enforcement, criminology, justice studies and politics. The knowledge, skills and attitudes Legal Studies students gain are transferable to all discipline areas and post-schooling tertiary pathways. The research and analytical skills this course develops are universally valued in business, health, science and engineering industries.

# MODERN HISTORY

## 4-UNIT GENERAL COURSE

### SUMMARY

Modern History is a discipline-based subject where students examine traces of humanity's recent past, so they may form their own views about the Modern World. Through Modern History, students' curiosity and imagination is invigorated while their appreciation of civilisation is broadened and deepened. Students learn that the past is contestable and tentative. They discover how the past consists of various perspectives and interpretations. Modern History distinguishes itself from other subjects by enabling students to empathise with others and make meaningful connections between the past, present and possible futures.

Modern History benefits students as it enables them to thrive in a dynamic, globalised and knowledge-based world. Through Modern History, students acquire an intellectual toolkit consisting of 21st century skills. This ensures students of Modern History gain a range of transferable skills that will help them forge their own pathways to personal and professional success, as well as become empathetic and critically literate citizens who are equipped to embrace a multicultural, pluralistic, inclusive, democratic, compassionate and sustainable future.

### PREREQUISITES

C in Year 10 Modern History

### COURSE OUTLINE

**Unit 1:** In Unit 1, students form their own knowledge and understanding about ideas that have emerged in the Modern World. The ideas examined include assumptions, beliefs, views or opinions that are of local, national or international significance. They consist of, for example: authoritarianism, capitalism, communism, democracy, environmental sustainability, egalitarianism, imperialism, nationalism, and self-determination. Students apply historical concepts and historical skills to explore the nature, origins, development, legacies and contemporary significance of these ideas within selected historical contexts, e.g. rebellions, restorations, revolutions or conflicts.

**Unit 2:** In Unit 2, students form their own knowledge and understanding about movements that have emerged in the Modern World. The movements examined include actions or activities on a local, national or international level that are directed towards a particular social purpose. Often the social purpose has been to make the world more inclusive, liberal, equitable, egalitarian or accessible through the removal of discrimination and exploitation based on some form of prejudice, e.g. ableism, anti-Semitism, classism, homophobia, Islamophobia, racism, sexism, transphobia or xenophobia. Students apply historical concepts and historical skills to explore the nature, origins, development, legacies and contemporary significance of these movements within selected historical contexts, e.g. movements for independence, civil rights or some other form of political and social change.

**Unit 3:** In Unit 3, students form their own knowledge and understanding about national experiences that have emerged in the Modern World. The national experiences examined include crises that have confronted nations, their responses to these crises, and the different paths nations have taken to fulfil their goals. These national experiences consist of, for example: civil wars, immigration policies, electoral campaigns and major economic events. Students apply historical concepts and historical skills to explore the nature, origins, development, legacies and contemporary significance of these national experiences within selected historical contexts.

**Unit 4:** In Unit 4, students form their own knowledge and understanding about international experiences that have emerged in the Modern World. The international experiences examined include responses to cultural, economic, ideological, political, religious, military or other challenges that have gone beyond national borders. They consist of situations where, for example, two or more nations or regional groups: come into conflict with each other (directly or via proxies); form a common union, treaty or commerce-based arrangement; engage with a subnational or transnational organisation; experience the effects of a global or regional trend. Students apply historical concepts and historical skills to explore the nature, origins, development, legacies and contemporary significance of these international experiences within selected historical contexts.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                     |
|------------------------|---------------------|
| Internal assessment 1: | Examination (25%)   |
| Internal assessment 2: | Investigation (25%) |
| Internal assessment 3: | Investigation (25%) |
| External assessment:   | Examination (25%)   |

### FURTHER STUDIES

Modern History is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Modern History can establish a basis for further education and employment in the fields of history, education, psychology, sociology, law, business, economics, politics, journalism, the media, writing, academia and strategic analysis. The skills developed in Modern History can be used in students' everyday lives — including their work — when they need to understand situations, place them in perspective, identify causes and consequences, acknowledge the viewpoints of others, develop personal values, make judgments and reflect on their decisions.

# DESIGN

## 4-UNIT GENERAL COURSE

### SUMMARY

Technologies have been an integral part of society for as long as humans have had the desire to create solutions to improve their own and others' quality of life. Technologies have an impact on people and societies by transforming, restoring and sustaining the world in which we live.

Australia needs enterprising and innovative individuals with the ability to make discerning decisions concerning the development, use and impact of technologies. When developing technologies, these individuals need to be able to work independently and collaboratively to solve complex, open-ended problems. Subjects in the Technologies learning area prepare students to be effective problem-solvers as they learn about and work with contemporary and emerging technologies. Design focuses on the application of design thinking to envisage creative products, services and environments in response to human needs, wants and opportunities. Designing is a complex and sophisticated form of problem-solving that uses divergent and convergent thinking strategies that can be practised and improved. Designers are separated from the constraints of production processes to allow them to appreciate and exploit new innovative ideas.

### PREREQUISITES

C in Year 10 Design Technologies

### COURSE OUTLINE

**Unit 1:** In Unit 1, students learn about and experience designing in the context of design in practice. Fundamental to design in practice is the principle that design is a purposeful process undertaken by design professionals in response to identified needs, wants and opportunities. Students are introduced to the breadth of design professions, the design process and how designs of the past inform contemporary design practice. Students will experience design directly as they respond to teacher-directed, open-ended, well-defined design problems.

**Unit 2:** In Unit 2, students will learn about and experience designing in the context of commercial design. Fundamental to commercial design is the principle that design is a commercial endeavour that requires designers to respond to the needs and wants of clients.

**Unit 3:** In Unit 3, students learn about and experience designing in the context of human-centred design (HCD). Fundamental to HCD is the principle that a designer considers human needs and wants as a higher priority than other influences throughout the design process. The success of a design depends on effectively considering the attitudes, expectations, motivations and experiences of humans. Designers use observations, interviews and experiences to acquire data about people and seek to avoid making assumptions about their needs and wants.

**Unit 4:** In Unit 4, students learn about and experience designing in the context of sustainable design. Fundamental to sustainable design is the principle that designers should create new designs that can be supported indefinitely in terms of their economic, social and ecological impact on the wellbeing of humans.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                   |
|------------------------|-------------------|
| Internal assessment 1: | Examination (15%) |
| Internal assessment 2: | Project (35%)     |
| Internal assessment 3: | Project (25%)     |
| External assessment:   | Examination (25%) |

### FURTHER STUDIES

Design is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Design can establish a basis for further education and employment in the fields of architecture, digital media design, fashion design, graphic design, industrial design, interior design and landscape architecture.

# DIGITAL SOLUTIONS

## 4-UNIT GENERAL COURSE

### SUMMARY

In Digital Solutions, students learn about algorithms, computer languages and user interfaces through generating digital solutions to problems. They engage with data, information and applications to create digital solutions that filter and present data in timely and efficient ways while understanding the need to encrypt and protect data. They understand computing's personal, local and global impact, and the issues associated with the ethical integration of technology into our daily lives.

Students engage in problem-based learning that enables them to explore and develop ideas, generate digital solutions, and evaluate impacts, components and solutions. They understand that solutions enhance their world and benefit society. To generate digital solutions, students analyse problems and apply computational, design and systems thinking processes. Students understand that progress in the development of digital solutions is driven by people and their needs.

Learning in Digital Solutions provides students with opportunities to create, construct and repurpose solutions that are relevant in a world where data and digital realms are transforming entertainment, education, business, manufacturing and many other industries. Australia's workforce and economy requires people who are able to collaborate, use creativity to be innovative and entrepreneurial, and transform traditional approaches in exciting new ways.

### PREREQUISITES

C in Year 10 Digital Technologies

### COURSE OUTLINE

**Unit 1:** In Unit 1, students will explore the creative and technical aspects of developing interactive digital solutions. They investigate algorithms, programming features and usability principles to generate small interactive solutions using programming tools and gain a practical understanding of programming features. This allows them the opportunity to explore existing and developing trends involving digital technologies.

**Unit 2:** In Unit 2, students are required to engage with and learn subject matter through the use of the various phases of the problem-solving process in Digital Solutions. Students will optimise a given database and use programming skills acquired in Unit 1 to write procedural text-based code to generate a solution that interacts with an existing database via structured query language (SQL). Students will plan, develop and generate the interface and code to enable the user to insert, update, retrieve and delete data using an existing database via SQL. Prior to inserting the data, the system will validate the data being entered to ensure its integrity and reliability for use and storage. Retrieved data will be displayed to the user in an appropriate format, such as text or a symbolic visual form. Students are required to understand the structure of a database, along with how primary and foreign keys and data types affect the performance of the database. Students will evaluate the security, privacy and ethical effects of storing data in databases from individual, organisational and government perspectives.

**Unit 3:** In Unit 3, analyse the requirements of particular groups of people, and use knowledge and skills of problem-solving, and computational, design and systems thinking. They will determine database requirements and use available resources to create prototyped digital solutions by programming and developing user interfaces to improve user experiences. Students will do this through one of the technology contexts: web or mobile applications, interactive media, or intelligent systems (which use microcontrollers, sensing or control boards).

**Unit 4:** In Unit 4, students learn how data is shared in both local and global contexts, particularly how digital solutions are increasingly required to exchange data securely and efficiently. Students will understand elements of cybersecurity by exploring the conditions, environment and methods for enabling data to flow between different digital systems. They will analyse data privacy and data integrity risks associated with transferring data between applications and evaluate the personal, social and economic impacts associated with the use and availability of both public and private data. Students will develop an application that simulates the exchange of data between two applications.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                     |
|------------------------|---------------------|
| Internal assessment 1: | Investigation (20%) |
| Internal assessment 2: | Project (30%)       |
| Internal assessment 3: | Project (25%)       |
| External assessment:   | Examination (25%)   |

### FURTHER STUDIES

Digital Solutions is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Digital Solutions can establish a basis for further education and employment in the fields of science, technologies, engineering and mathematics.

# ENGINEERING

## 4-UNIT GENERAL COURSE

### SUMMARY

Engineering includes the study of mechanics, materials science and control technologies through real-world engineering contexts where students engage in problem-based learning. Students learn to explore complex, open-ended problems and develop engineered solutions. They recognise and describe engineering problems, determine solution success criteria, develop and communicate ideas and predict, generate, evaluate and refine prototype solutions. Students justify their decision-making and acknowledge the societal, economic and environmental sustainability of their engineered solutions. The problem-based learning framework in Engineering encourages students to become self-directed learners and develop beneficial collaboration and management skills.

Engineering provides students with an opportunity to experience, first-hand and in a practical way, the exciting and dynamic work of real-world engineers. Students learn transferrable 21st century skills that support their life aspirations, including critical thinking, creative thinking, communication, collaboration and teamwork, personal and social skills, and information and communication technologies (ICT) skills. The study of Engineering inspires students to become adaptable and resilient. They appreciate the engineer's ability to confidently and purposefully generate solutions that improve the quality of people's lives in an increasingly complex and dynamic technological world.

### PREREQUISITES

C in Year 10 Engineering

C in Year 10 Mathematical Methods.

### COURSE OUTLINE

**Unit 1:** In Unit 1, students learn about engineering's role in solving global and local societal problems in order to improve the human condition. Students are introduced to the problem-solving process in Engineering. They learn how to use their knowledge of fundamental mechanics and materials science concepts and principles to solve problems in ways that meet human needs while considering the economic, social, ethical, legal and environmental impacts of their solutions. Students explore the history of engineering, including ancient Egyptian, Grecian and Roman structures, to gain an appreciation for the role played by engineering in the shaping of contemporary and future societies. Students engage in practical engineering activities to learn that engineering is an applied practical discipline that uses science and mathematics concepts and principles to solve real-world problems. Students are introduced to engineering drawings that communicate ideas to a technical and non-technical audience. Students participate in a range of individual and collaborative group activities, including those associated with material and process testing, analysis of the forces acting on basic structures, and problem-solving.

**Unit 2:** In Unit 2, students explore the needs of contemporary and future societies. Students investigate the emergence of new materials, processes and machines developed to solve problems in relation to rapidly evolving needs. This unit builds on the knowledge gained in the previous unit and reinforces engineering's role in solving global and local societal problems in order to improve the human condition. Students use their knowledge of mechanics, materials science and control technologies to solve problems in ways that meet contemporary and future human needs while considering the social, economic, ethical, legal and environmental impacts of their solutions.

Students investigate new and emerging technologies in relation to engineering fields including biomedical, aerospace, energy and electrical. They engage in practical engineering activities using the knowledge gained in this unit to solve real-world problems. Students participate in a range of individual and collaborative group activities including those associated with advanced materials, health, renewable energy, autonomous vehicles and robotics.

**Unit 3:** In Unit 3, students learn about engineering's role in solving global and local societal problems to improve the human condition. Students investigate civil structures to examine the benefits and the social and environmental consequences of their construction and use. Students engage in practical engineering activities to learn that engineering is an applied practical discipline that uses science and mathematics concepts and principles to solve real-world problems. Students participate in a range of individual and collaborative group activities, including those associated with material and process testing, and analysis of the forces acting on structures. Students investigate the difficulties involved in engineering solutions for communities where environmental extremes must be considered, including those associated with intense cold and heat, storms, drought or flood.

**Unit 4:** In Unit 4, students extend their knowledge of Units 1, 2 and 3 to develop an understanding of dynamics through machines and mechanisms, including the uniform accelerated motion of objects in one-dimension, apparent weight, and motion on an inclined plane. They examine the effect of frictional forces on the motion of objects. Students investigate the functional requirements of machines and mechanisms and establish a working knowledge of their operation in real-world contexts. They differentiate between the properties of materials used in the manufacture of machines and mechanisms in engineering fields such as mechanical, electrical, biomedical and mechatronics.

### ASSESSMENT (UNITS 3 AND 4)

|                        |                   |
|------------------------|-------------------|
| Internal assessment 1: | Project (25%)     |
| Internal assessment 2: | Examination (25%) |
| Internal assessment 3: | Project (25%)     |
| External assessment:   | Examination (25%) |

### FURTHER STUDIES

Engineering is a General subject suited to students who are interested in pathways beyond school that lead to tertiary studies, vocational education or work. A course of study in Engineering can establish a basis for further education and employment in the field of engineering, including, but not limited to, civil, mechanical, mechatronic, electrical, aerospace, mining, process, chemical, marine, biomedical, telecommunications, environmental, micro-nano and systems. The study of engineering will also benefit students wishing to pursue post-school tertiary pathways that lead to careers in architecture, project management, aviation, surveying and spatial sciences.



## REGISTERED TRAINING ORGANISATION

TAFE Queensland SkillsTech (RTO Code: 31396)

## SUMMARY

Students who successfully complete all required modules will be eligible to be awarded the VET Certificate I- Furnishing MSF10113.

This certificate course is delivered on behalf of an external provider, TAFE Queensland SkillsTech (RTO No. 31396). Students will be provided with every opportunity to complete the certificate as per the rights and obligations outlined in the enrolment process and VET information provided to students. Students successfully achieving all requirements for the qualification will be provided with the qualification and record of results. Students who achieve at least one unit (but not the full qualification) will receive a Statement of Attainment.

## PREREQUISITES

Nil.

## COURSE OUTLINE

The Certificate I – Furnishing provides students with the opportunity to develop skills and knowledge in basic furnishing techniques that include a variety of employment- related skills relating to safety, measurements and calculations, materials and the use of hand and power tools to produce project work.

Specifically, in addition to developing particular skills in the design and manufacture process, the course aims to develop in students:

- an awareness and appreciation of issues relating to workshop safety
- an ability to work well with others and in groups
- an appropriate level of self-discipline and responsibility.

Students will complete both theory and practical components in this course. They will have the opportunity to learn and practise skills and apply knowledge in practical applications.

### Certificate I in Furnishing - MSF10113

|           |   |
|-----------|---|
| MSMWHS100 | Follow WHS procedures                                     |
| MSMOPS101 | Make measurements   |
| MSMSUP102 | Communicate in the workplace                              |
| MSMSUP106 | Work in a team  |
| MSMENV272 | Participate in environmentally sustainable work practices |
| LMFFM2006 | Hand make timber joints                                   |
| MSFFM1001 | Construct a basic timber furniture product                |
| LMFFF2004 | Prepare surfaces for finishing                            |

## ASSESSMENT

Assessment in Certificate I – Furnishing may include written tests, project work, practical assignments, group tasks and extended project work. Although this is a practical subject, there is theory and content that must be mastered in order to complete modules.

Modules are correct at time of publication but are subject to change.



# TECHNOLOGIES VET COURSE

## CERTIFICATE III – INFORMATION, DIGITAL MEDIA AND TECHNOLOGY ICA30115

### REGISTERED TRAINING ORGANISATION

Axiom College (RTO Code: 40489)

To enrol in this subject there is an additional cost of \$500 that is paid to Axiom College to cover the cost of the course and resources prior to students commencing. This cost is current but may be subject to change.

### SUMMARY

Students who successfully complete all required modules will be eligible to be awarded the VET Certificate III – Information, Digital Media and Technology. This course is delivered on behalf of an external provider, Axiom College (RTO No. 40489). Students will be provided with every opportunity to complete the certificate as per the rights and obligations outlined in the enrolment process and VET information provided to students. Students successfully achieving all requirements for a qualification will be provided with the qualification and record of results. Students who achieve at least one unit (but not a full qualification) will receive a Statement of Attainment.

### PREREQUISITES

Nil

### COURSE OUTLINE

The Certificate III – Information, Digital Media and Technology provides students with the skills and knowledge to be competent in a wide range of competencies and to achieve self-sufficiency as an advanced ICT user. Students will study the 'Applications Stream' in this qualification.

The course is designed to improve students' knowledge of computers, associated hardware and software applications so they are able to deliver solutions to client problems in the IT environment. It provides the opportunity for students to gain the skills required to work in a range of technical and client support roles including basic software and application support to a unit or branch within an organization. Training will be delivered as a combination of classwork and online activities within students' normal timetabled class in the school environment.

The seventeen VET modules to be delivered and completed towards the Certificate III - Information, Digital Media and technology are:

|           |   |
|-----------|---|
| BSBCUS301 | Deliver and monitor a service to customers                              |
| BSBITU303 | Design and produce text documents                                       |
| BSBUS301  | Implement and monitor environmentally sustainable work practices        |
| BSBWHS304 | Participate effectively in WHS communication and consultation processes |
| BSBWOR301 | Organise personal work priorities and development                       |
| ICTICT202 | Work and communicate effectively in an ICT environment                  |
| ICTICT203 | Operate application software packages                                   |
| ICTICT301 | Create user documentation   |
| ICTICT302 | Install and optimise operating system software                          |
| ICTICT304 | Implement system software changes                                       |
| ICTICT305 | Identify and use current industry specific technologies                 |
| ICTICT306 | Migrate to new technology   |
| ICTICT307 | Customise packaged software applications for clients                    |
| ICTICT308 | Use advanced features of computer applications                          |
| ICTICT409 | Develop macros and template for clients using standard products         |
| ICTSAS301 | Run standard diagnostic tests   |
| ICTSAS305 | Provide ICT advice to clients   |

### ASSESSMENT

Assessment in Certificate III – Information, Digital Media and Technology modules may include a range of assessment types. All assessment is competency-based.

Modules are correct at time of publication but are subject to change.

## ENQUIRIES

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*Enquiries about the material covered in this book should be directed to:*

Dean of Teaching and Learning  
Villanova College  
P.O. Box 1166 Coorparoo DC Q 4151  
Telephone: (07) 3394 5521  
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Email: [jchristie@vnc.qld.edu.au](mailto:jchristie@vnc.qld.edu.au)

*New enrolment enquiries should be directed to the Marketing, Communications and Enrolments Officer at the above address.*

