Pymble Ladies' College

# Year 11 2020 Information Booklet

## Subject choice for the Higher School Certificate

Preliminary Course – 2020
HSC Course – 2021

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# Introduction

The aim of this booklet is to give you information to help inform your decisions about the subjects you will study for your Higher School Certificate (HSC). You will have many opportunities in school to hear about, and discuss, the subjects that we offer in Years 11 and 12. In Term 2, Heads of Learning Areas will come to a Year Assembly to talk to you about their subjects. This will be followed by an information evening where you and your parents can meet representatives from each department to discuss their subject with them. In addition to this, there are many people at school from whom you can seek advice: your teachers, the relevant Head of Learning Area, and Director of Studies. We are all here to help you make the right decisions, and you should not hesitate to speak to one of us if you would like our help.

## What is the required pattern of study for completion of the HSC?

To be eligible for the award of the HSC, students are required by the NSW Education Standards Authority (NESA) to study at least **12 units** in the Preliminary (Year 11) course and at least **10 units** in the HSC (Year 12) course. Students must study a course that fits the following pattern:

1. At least six units from NESA Developed courses (all courses offered at *Pymble* are NESA Developed courses).
2. At least two units of English.
3. At least three courses (including English) of two-units value or greater.
4. At least four subjects.
5. A maximum of six units of science in Year 11 (Biology, Chemistry, Earth and Environmental Science, Physics) and seven units in Year 12 (including Science Extension).

## HSC minimum standard

Students sitting their HSC exams in or after 2020 will need to meet a minimum standard of literacy and numeracy to receive their Higher School Certificate. Students will show they have met the HSC minimum standard by passing online tests of basic reading, writing and numeracy skills needed for everyday tasks.

## Why are courses discussed in terms of units?

A unit is the basic structure of all courses and is a measure of the time expected for a typical student to achieve the objectives and outcomes of a course. A 2-Unit subject will take approximately twice as long to complete as a 1-Unit subject. In the HSC examinations, each unit has a value of 50 marks. In a 2-Unit course, therefore, a student can gain a maximum of 100 marks; in a 1-Unit course she can gain a maximum of 50 marks.

Most courses are two units. At *Pymble,* all students are expected to start Year 11 with six, 2-Unit courses. In addition to these courses, students may study 1-Unit (Extension) courses, one in English and/or one in Mathematics, making a total of 13 or 14 units. If a student is successfully studying both Extension courses, she may drop one of her 2-Unit courses, after consultation with the Director of Studies.

A 1-Unit course is also available in Studies of Religion. This course is studied over two years.

1-Unit Extension courses are available in a number of subjects. They build on the content and skills of the 2-Unit course and require students to work beyond the standard of the 2-Unit course. A Preliminary Extension course is studied concurrently with the Preliminary 2-Unit course. An HSC Extension course is studied concurrently with, or after completing, the HSC 2-Unit course in the subject.

- Preliminary Extension courses are available in English and Mathematics.

- HSC Extension courses are available in English (if the Preliminary Extension course has been completed), Mathematics (if the Preliminary Extension course has been completed), History (Ancient or Modern), Science (if at least one Preliminary Science course has been completed), Music, Chinese, French, German, Japanese, Latin and Classical Greek.

## What is the maximum number of units I can study?

The *Pymble* timetable is constructed on a five-period day, ten-day cycle. This enables it to accommodate a maximum of **14 units** of study. Students who undertake an Extension course in English or Mathematics or Studies of Religion may also have one timetabled lesson before school each cycle in each 1-Unit course.

## What must a student do to satisfactorily complete an HSC course?

To complete the HSC course satisfactorily, NESA requires a student to:

1. Follow the Preliminary and HSC courses developed by NESA.
2. Apply herself with diligence and sustained effort to the set tasks and experiences provided in the course by the school.
3. Achieve the course outcomes.
4. Make a genuine attempt at the assessment tasks set for the course.
5. Sit for, and make a serious attempt at, the HSC examinations.

## Which subjects should I choose to study?

There are four important points to bear in mind when considering which subjects to study:

1. Choose subjects that interest you and that you will enjoy studying.
2. Choose subjects and courses in line with your level of ability.
3. Choose subjects and courses that will provide the necessary background for any career paths you are considering. If you are unsure about future career possibilities, choose subjects and courses that will give you the greatest flexibility.
4. Listen to the information and advice given by your teachers.

In addition, ensure that you do the following:

- Seek your teacher's advice on whether you should be considering English Extension 1.
- If you wish to study Mathematics, ask your Maths teacher for advice on whether you should choose Mathematics or Mathematics Standard. Also ask your teacher whether you should study Mathematics Extension 1.
- Read this booklet carefully so that you are clear about the subjects and courses being offered.
- Come to the Information Evening with your parents on **Thursday 27 June 2019**. A team of teachers from every department will be there to talk to you about their subject and help you make the right choice. Make sure that you ask questions about anything of which you are unsure.
- Listen carefully to the Heads of Learning Area who will come to your Year Assembly to speak to you about their particular subject area.
- Speak to your teacher, Head of Learning Area, Connect teacher or Director of Studies if you have any questions. We are here to help you.
- Read the instructions on the Online Subject Choice Form carefully to ensure that you are choosing an appropriate combination of subjects.

## What percentage of my final HSC mark comes from school-based assessment?

School-based assessment tasks completed in Year 12 (commencing in Term 4 of Year 11) comprise 50 per cent of the final HSC mark. Although there is a formal assessment program for each course in Year 11, the marks do not contribute to the final HSC mark. Students will be marked on their performance in assessment tasks at regular intervals throughout each course. The final HSC examinations, which take place in October and November in Year 12, comprise the other 50 per cent. At the beginning of Year 12, students will be given an *HSC Assessment Booklet* that outlines all the details and requirements of the internal assessment procedure.

## What opportunities are there to study Extension courses?

Extension courses are available to students who have reached a high academic standard in the relevant subject area.

In Year 11, students may study English Extension 1 alongside the Advanced English course, and Mathematics Extension 1 alongside the Mathematics Advanced course. These Extension courses may be studied for one year only (Year 11), or for two years (Years 11 and 12).

In Year 12, students may study the following one-year Extension courses if they have achieved a high standard in the subject in the Preliminary course, and if they are studying the HSC course:

- English Extension 2, which is studied alongside the Extension 1 course; students must have studied English Extension 1 in Year 11 if they wish to study English Extension 2 in Year 12
- Mathematics Extension 2, which is studied alongside the Extension 1 course; students must have studied Mathematics Extension 1 in Year 11 if they wish to study Mathematics Extension 2 in Year 12
- Science Extension – Students must study at least one of the 2 Unit Science courses if they intend to study the Science Extension course
- History Extension (extension to either Modern **or** Ancient History).
- Music Extension – Students must study the Music 2 course in Years 11 and 12 if they intend to study the Music Extension course
- Latin Extension (extension to Latin Continuers)
- Classical Greek Extension (extension to Classical Greek Continuers)
- French Extension (extension to French Continuers)
- Japanese Extension (extension to Japanese Continuers)
- German Extension (extension to German Continuers)
- Chinese Extension (extension to Chinese Continuers).

Please note that entry into Extension courses in Years 11 and 12 is at the discretion of the relevant Head of Learning Area.

## What is the ATAR, and how does it relate to the HSC?

NESA awards the HSC to students who have satisfactorily completed the Preliminary and HSC pattern of study outlined above. It is a standards-referenced award: for each course studied, a student is given a mark in a particular band that indicates the standard that student has reached. In a 2-Unit course, there are six bands of achievement; in an Extension course there are four bands of achievement.

The ATAR (Australian Tertiary Admission Rank) is a number between one and 99.95 that is calculated by the Universities Admissions Centre (UAC) to select university applicants. It is not a mark, but a rank that indicates a student's overall HSC achievement in relation to other students who started Year 7 together. Although the ATAR is based on the marks students receive in their HSC courses, those marks are used quite differently from the way they are used by NESA. They are statistically adjusted to calculate what any given student's marks would have been if **all** students had attempted **all** courses. The process is called scaling. The only purpose of the ATAR is to rank students for entry into tertiary education.

The booklet, *University Entry Requirements Year 10*, is published annually by the UAC for Year 10 students and explains how the ATAR is calculated. All students have received a copy during Semester 1. More information about the ranking process can be found by visiting the UAC website at **www.uac.edu.au**

## Which subjects count towards my ATAR?

To receive an ATAR, students must complete a minimum of ten HSC units. The ATAR is calculated using:

- the two best units of English
- the next best eight units
- no more than two units from Category B subjects (Hospitality is the only Category B subject offered at *Pymble*).

## Will studying certain subjects over others get me a higher ATAR?

The University Admissions Centre (UAC) consistently states that students should not choose courses based on perceptions of the likely effect of scaling. The scaling process is designed to allow students to choose subjects that interest them, that give them the opportunity to utilise demonstrated abilities and that will be useful to them in their future career plans. The aim of the scaling process is to ensure that students who choose subjects according to these guidelines are not disadvantaged by their choice.

## When do I start the Preliminary courses?

NESA stipulates that students cannot start their study for the Higher School Certificate until the first term of Year 11.

## What happens if I make a mistake in my choice of courses?

If you realise that you have made a mistake in choosing a particular course, it may be possible to change to another one. You will need to meet with the Director of Studies to discuss the situation. Any change will be dependent on:

1. whether there is space in the class of the course you wish to join; some courses fill up very quickly, and there is no room for additional students
2. whether you will be able to catch up the work and assessment task(s) that you have missed
3. whether, in the opinion of the Director of Studies and Head of Learning Area, you have the ability and required background knowledge for the proposed course.

In general, students will not be permitted to start a new course after Term 1 in Year 11 because of the difficulty involved in catching up the work that has been missed, as well as completing any outstanding assessment tasks. Any student request is, however, dealt with on an individual basis.

## What will my HSC Record of Achievement look like?

On satisfactory completion of the HSC, students receive a portfolio containing:

1. The HSC Testamur: this is the certificate that confirms a student has achieved all the requirements for the award.
2. The Record of Achievement: this lists the courses studied and the mark and band achieved in each course. 2-Unit courses are marked out of 100, and have six bands of achievement; 1-Unit courses are marked out of 50, and have four bands of achievement. It also lists the Preliminary courses studied and the grades achieved.
3. Course Reports: this lists the marks awarded in each course for the moderated school assessment, the HSC examination and the final HSC mark (an average of the two former marks).

On the following pages is a sample HSC Portfolio.

*Pymble* offers a wide range of HSC courses and, with its highly experienced teachers, excellent resources and first-rate facilities, teaches those courses to a very high standard. You should find that, over the next two years, you will be stimulated and stretched intellectually, developing the skills of evaluation, analysis and synthesis that will stand you in good stead for the future. If you make the most of the opportunities ahead of you at *Pymble*, you will reach your potential and develop a strong foundation for lifelong learning. Should you encounter difficulties with any aspect of your courses, do not hesitate to contact the relevant member of staff to discuss those difficulties. We are all here to help you.

We hope that your HSC years will be challenging, enjoyable and rewarding.



Mrs Vicki L Waters
**Principal**



Mr Stephen Dunk
**Director of Studies**


NSW
Education
Standards
Authority
HIGHER SCHOOL
CERTIFICATE
SAMPLE
NAME SURNAME
has met the requirements for the
award of a Higher School Certificate

# HIGHER SCHOOL CERTIFICATE

## Record of Achievement

Education Standards Authority

This is to certify that
Sample Student
of
Sample High School
has met the requirements of the Higher School Certificate and has received the results shown below.

**STAGE 6 HSC COURSES**

| Year | Course | Examination Mark | Assessment Mark | HSC Mark | Performance Band |
|---|---|---|---|---|---|
| Board Developed Courses | | | | | |
| 2017 | Ancient History (2 unit) | 75/100 | 82/100 | [illegible] | 4 |
| | English (Advanced) (2 unit) | [illegible]/50 | 84/100 | 83 | 5 |
| | Mathematics General 2 (2 unit) | 87/100 | 74/100 | 84 | 5 |
| | Personal Development, Health and Physical Education (2 unit) | 86/100 | [illegible]/100 | 89 | 5 |
| | Studies of Religion II (2 unit) | [illegible]/100 | 84/100 | 82 | 5 |

SAMPLE

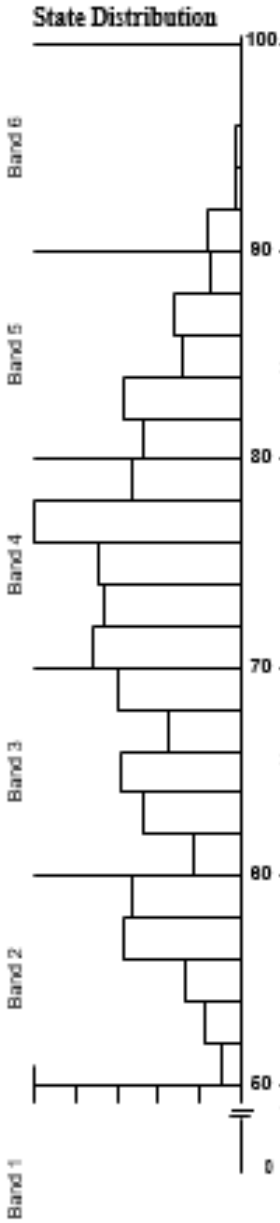
Student Number [illegible]

Issued by NESA without alteration or erasure on [illegible] at Sydney, NSW, Australia

Chief Executive Officer
NSW Education Standards Authority

# 2018 Course Report

## Hospitality Examination (Food and Beverage)




**The typical examination performance in this band:**

**100**
Demonstrates extensive knowledge and understanding of the HSC mandatory focus areas including Hygiene, Safety and Working in the hospitality industry and workplace. Demonstrates extensive knowledge and understanding of one HSC stream focus area - Food and Beverage or Kitchen Operations and Cookery. Communicates in a coherent, succinct and logical manner. Uses industry terminology accurately and appropriately. Supports responses with relevant workplace examples.

**90**
Demonstrates thorough knowledge and understanding of the HSC mandatory focus areas including Hygiene, Safety and Working in the hospitality industry and workplace. Demonstrates thorough knowledge and understanding of one HSC stream focus area - Food and Beverage or Kitchen Operations and Cookery. Communicates in an effective and organised manner. Uses industry terminology appropriately. Supports responses with workplace examples.

**80**
Demonstrates sound knowledge and understanding of the HSC mandatory focus areas including Hygiene, Safety and Working in the hospitality industry and workplace. Demonstrates sound knowledge and understanding of one HSC stream focus area - Food and Beverage or Kitchen Operations and Cookery. Communicates in an organised manner. Uses some industry terminology appropriately. Includes some workplace examples in responses.

**70**
Demonstrates basic knowledge and understanding of the HSC mandatory focus areas including Hygiene, Safety and Working in the hospitality industry and workplace. Demonstrates basic knowledge and understanding of one HSC stream focus area - Food and Beverage or Kitchen Operations and Cookery. Communicates in a basic manner. Uses some industry terminology.

**60**
Demonstrates elementary knowledge and understanding of the HSC mandatory focus areas including Hygiene, Safety and Working in the hospitality industry and workplace. Demonstrates elementary knowledge and understanding of one HSC stream focus area - Food and Beverage or Kitchen Operations and Cookery. Uses generalisations and non-industry specific terminology.

**0**
A mark in this band indicates that the student has achieved below the minimum standard expected.

The candidature of this course was 2,116.

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## Particular course requirements and restrictions

| Preliminary and HSC Courses (2 Unit) | Course Restrictions | Preliminary and HSC Extension Courses (1 Unit) |
|---|---|---|
| Agriculture | NESA categorises Agriculture as an Applied Technology subject not a Science. Science Extension cannot be studied with Agriculture alone | |
| Ancient History | Extension History (Year 12) may be an extension to **either** Modern History **or** Ancient History | HSC History Extension (Y12) |
| Biology | A maximum of 7 units of Science may be studied | HSC Science Extension (Y12) |
| Chemistry | A maximum of 7 units of Science may be studied | HSC Science Extension (Y12) |
| Chinese | | HSC Chinese Extension (Y12) |
| Classical Greek Continuers | | HSC Classical Greek Extension (Y12) |
| Earth and Environmental Science | A maximum of 7 units of Science may be studied | HSC Science Extension (Y12) |
| English EAL/D | May be studied by any student who has been educated overseas or in an Australian educational institution with English as the language of instruction for five years or less prior to commencing the Preliminary course | |
| English Standard<br>English Advanced | You **must** study **either** Standard **or** Advanced. Extension may be studied with the Advanced Course only. You must study Preliminary and HSC Extension 1 to be eligible to study HSC Extension 2 | Prelim English Extension (Y11)<br>HSC English Extension 1 (Y12)<br>HSC English Extension 2 (Y12) |
| French Continuers | | HSC French Extension (Y12) |
| German Continuers | | HSC German Extension (Y12) |
| Hospitality | This VET course is a Category B subject for ATAR calculation | |
| Italian Beginners | This may only be studied by students who have 100 hours experience or less at Key Stage 4 and 5 in Italian | |
| Japanese Continuers | May only be studied as a second or subsequent language. Cannot have more than one year of formal education in the language in a country where the language is the medium of instruction. | HSC Japanese Extension (Y12) |
| Latin Continuers | | HSC Latin Extension (Y12) |
| Mathematics Advanced<br>Mathematics Standard | You may study **either** Advanced **or** Standard. Extension may be studied with the Advanced Course only. You must study Preliminary and HSC Extension 1 to be eligible to study HSC Extension 2 | Prelim Mathematics Extension (Y11)<br>HSC Mathematics Extension 1 (Y12)<br>HSC Mathematics Extension 2 (Y12) |
| Modern History | Extension History (Year 12) may be an extension to **either** Modern History **or** Ancient History | HSC History Extension (Y12) |
| Music 1<br>Music 2 | You may study **either** Music 1 **or** Music 2. You **must** study Music 2 if you wish to study Music Extension in Year 12 | HSC Music Extension (Y12) |
| Physics | A maximum of 7 units of Science may be studied | HSC Science Extension (Y12) |
| Studies of Religion I | This is a 1-Unit course studied over two years, Years 11 and 12 | |

**Note:** A number of subjects [Drama, Design and Technology, Textiles and Design, Visual Arts] include a requirement for the development of project work for either internal or external assessment. Projects developed for assessment in one subject are not to be used either in full or in part for assessment in any other subject.

# English Advanced

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** English Standard; English Studies; EAL/D

## Why do I need to study English?

Proficiency in English enables students to take their place as confident communicators, critical and imaginative thinkers, lifelong learners and informed, active participants in Australian society. It supports the development and expression of a system of personal values, based on students' understanding of moral and ethical matters, and gives expression to their aspirations and ideals.

The study of English in Stage 6 develops in students an understanding of literary expression and nurtures an appreciation of aesthetic values. It develops skills to enable students to experiment with ideas and expression, to become innovative, active, independent learners, to collaborate and to reflect on their learning.

The study of English in Stage 6 enables students to understand and use language effectively. They appreciate, enjoy and reflect on the English language and make meaning in ways that are imaginative, creative, interpretive, critical and powerful. Students value the English language in its various textual forms to become thoughtful and effective communicators in a diverse global world.

## Why study English Advanced?

The English Advanced course is designed for students who have a particular interest and ability in the subject and who desire to engage with challenging learning experiences that will enrich their personal, intellectual, academic, social and vocational lives. Students appreciate, analyse and respond imaginatively and critically to literary texts drawn from a range of personal, social, historical and cultural contexts, including literature from the past and present and from Australian and other cultures. They study challenging written, spoken, visual, multimodal and digital texts that represent and reflect a changing global world.

Through their study of English, students can become critical thinkers, and articulate and creative communicators. They extend and deepen their ability to use language in subtle, nuanced, inventive and complex ways to express experiences, ideas and emotions. They refine their understanding of the dynamic relationship between language, texts and meaning. They do this through critical study and through the skilful and creative use of language forms and features, and of structures of texts composed for different purposes in a range of contexts. They extend their experiences in researching, accessing, evaluating and synthesising information and perspectives from a range of sources to fulfil a variety of purposes.

Most Preliminary students at *Pymble* are encouraged to study Advanced English because this maximises their choices for Year 12.

## Course description:

English Advanced is designed for students to undertake the challenge of higher-order thinking to enhance their personal, social, educational and vocational lives. These students apply critical and creative skills in their composition of, and response to, texts in order to develop their academic achievement through understanding the nature and function of complex texts.

## Main topics covered:

The **Year 11 English Advanced** course has two sections:

- In Year 11 students study a Common Module – Reading to Write. In this module, students undertake the intensive and close reading of quality texts from a variety of modes and media. In doing so, they further develop the skills and knowledge necessary to appreciate, understand, analyse and evaluate

how and why texts convey complex ideas, relationships, endeavours and scenarios.

- Students also study two modules where they investigate how an author's use of textual structures, language and stylistic features are crafted for particular purposes, audiences and effects. They examine conventions of narrative, for example setting, voice, point of view, imagery and characterisation and analyse how these are used to shape meaning.
  Students also explore how rhetorical devices enhance the power of narrative in other textual forms, including persuasive texts. They further develop and apply the conventions of syntax, spelling, punctuation and grammar for specific purposes and effect. Students also develop analytical and critical knowledge, understanding and appreciation of a literary text. Through increasingly informed personal responses to the text in its entirety, students develop understanding of the distinctive qualities of the text and notions of textual integrity.

The **HSC** course has two sections:

- Year 12 Common Module where students deepen their understanding of how texts represent individual and collective human experiences. They examine how texts represent human qualities and emotions associated with, or arising from, these experiences. Students appreciate, explore, interpret, analyse and evaluate the ways language is used to shape these representations in a range of texts in a variety of forms, modes and media.
- Modules which emphasise analytical and critical knowledge, understanding and appreciation of substantial literary texts; students understand the distinctive qualities of the text, notions of textual integrity and significance. Students will also be required to write for a range of audiences and purposes using language to convey ideas and emotions with power and precision.

## Particular course requirements:

The Year 11 English Advanced course requires students to experience:

- a range of types of texts inclusive of prose fiction, drama, poetry, nonfiction, film, media and digital texts
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.

The HSC English Advanced course requires students to:

- complete the Year 11 course as a prerequisite
- study a range of types of texts inclusive of prose fiction, drama, poetry, nonfiction, film, media and digital texts
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.

## HSC examination structure:

There will be two papers in the HSC examination.

## The importance of HSC English:

English is the only compulsory Stage 6 Course and the only subject from which two units must contribute to the ten units that comprise a student's ATAR score.

# English Extension 1 and English Extension 2 (HSC level only)

1 unit for each of the Year 11 and HSC
NESA Developed Course
**Exclusions:** English (Standard) Course; English Studies; EAL/D
As these courses are designed for students with a genuine desire to pursue a specialised study of English, entry to them will be at the discretion of the Head of English.

## What background knowledge do I need to study English Extension 1 and English Extension 2?

The Advanced English students can elect to extend their study of English through Year 11 English Extension and HSC English Extension 1 and 2 in Year 12. These courses enable students who are accomplished, analytical and imaginative in their use of English to refine their understanding and appreciation of the cultural roles and significance of texts. The courses are designed for students with a desire to pursue a specialised study of English.

The English Extension 1 course is designed for students undertaking English Advanced who choose to study at a more intensive level in diverse but specific areas. They enjoy engaging with complex levels of conceptualisation and seek the opportunity to work in increasingly independent ways. The English Extension 1 course provides students who undertake Advanced English and are accomplished in their use of English with the opportunity to extend their use of language and self-expression in creative and critical ways. Through engaging with increasingly complex concepts through a broad range of literature from a range of contexts, they refine their understanding and appreciation of the cultural roles and the significance of texts.

The HSC English Extension 2 course is designed for students who are independent learners with an interest in literature and a desire to pursue specialised study of English. The course enables students who are accomplished in their use of English with the opportunity to craft language and refine their personal voice in critical and creative ways. They can master skills in the composition process to create a substantial and original Major Work that extends their knowledge, understanding and skills developed throughout Stage 6 English courses. Through the creative process, they pursue areas of interest independently, develop deep knowledge and manipulate language in their own extended compositions.

## Why study English Extension 1 and English Extension 2?

The Stage 6 English Extension courses provide students who have a love for this subject with the opportunity for further study and skill management. These are intensive courses that encourage independent thinking and some free choice in the focus of their study.

## Course description:

The English Extension 1 course provides students who undertake Advanced English and are accomplished in their use of English with the opportunity to extend their use of language and self-expression in creative and critical ways. Through engaging with increasingly complex concepts through a broad range of literature, from a range of contexts, they refine their understanding and appreciation of the cultural roles and the significance of texts. Students have the opportunity to pursue areas of interest with increased independence and to theorise about the processes of responding to and composing texts. Students learn about research methodology to enable them to undertake extensive investigation used to develop extended compositions. Throughout the course, students explore and evaluate multiple meanings and relative values of texts. They explore a range of conceptual frameworks for the reading and composition of texts and examine a range of reading practices to develop awareness of the assumptions that guide interpretation and evaluation. They engage with complex texts that intellectually challenge them to think creatively and critically about

the way that literature shapes and reflects the global world. The course is designed for students with an interest in literature and a desire to pursue specialised study of English.

The HSC English Extension 2 course provides students with the opportunity to apply and extend research skills developed in the English Extension Year 11 course to their own extensive investigation and develop autonomy and skills as a learner and composer. Students develop a sustained composition after extensive independent investigation of complex texts during the composition process and document this in their Major Work Journal and Reflection Statement. HSC English Extension 2 develops independent and collaborative learning skills and higher-order critical thinking that are essential at tertiary levels of study and in the workplace. The course is designed for students who are independent learners with an interest in literature and a desire to pursue specialised study of English.

## Main topics covered:

**Year 11 Extension 1** course has one Mandatory Module: Texts, Culture and Value.

**HSC Extension 1** course has one section. Students must complete Common Module: Literary Worlds with one elective option. The study of at least three texts must be selected from a prescribed text list for the module study including at least two extended print texts.

**HSC Extension 2** course requires students to independently research and complete a Major Work, Reflection Statement and Journal.

## Particular course requirements:

Year 11 English Extension 1 course requires students to study **one** text and its manifestations in one or more recent cultures. Students research a range of texts as part of their independent project.

The HSC English Extension 1 course requires the study of at least **three** texts selected from a prescribed text list for the module study including at least **two** extended print texts.
Students are required to study at least **two** related texts.

The HSC English Extension 2 course requires students to undertake extensive independent investigation involving a range of complex texts during the composition process, and document this in their Major Work Journal and Reflection Statement.

## HSC examination structure:

**HSC English Extension 1**

There will be one examination paper.

**HSC English Extension 2**

The Major Work and Reflection Statement are marked externally. The Major Work Journal is submitted at the school level and kept if it is required by the external markers. The process of composition is marked internally through three assessment tasks.

## How is English Extension 1 and 2 relevant to tertiary studies and career choice?

All Extension courses build on the skills and knowledge students gain in the Advanced Course. These courses allow students to deepen their cultural knowledge, refine their analytical skills and develop skills in writing sustained compositions.

# English EAL/D

**Course Entry Requirements**
The English (EAL/D) course is open to students who have been educated overseas or in an Australian educational institution using English as the language of instruction for five years or less prior to the beginning of study in Year 11.

At *Pymble,* we encourage students interested in HSC English EAL/D to take the Year 11 Advanced English course in Year 11 to maximise their options and their exposure to English study and then to consider the EAL/D course in their HSC year.

The English EAL/D course is designed for students to become proficient in English to enhance their personal, educational, social and vocational lives. The course provides students with the opportunity to analyse, study and enjoy a breadth and variety of English texts to become confident and effective communicators. The course offers rich language experiences that are reflected through the integrated modes of reading, writing, speaking, listening, viewing and representing.

**Note:** This course is a prerequisite for EAL/D in Year 12.

## Rationale:

English EAL/D is designed for students from diverse non-English speaking, Aboriginal or Torres Strait Islander backgrounds as designated by the course entry requirements. The students engage in a variety of language learning experiences to develop and consolidate their use, understanding and appreciation of Standard Australian English, to enhance their personal, social, educational and vocational lives. The students learn to respond to and compose a wide variety of texts in a range of situations in order to be effective, creative and confident communicators.

The English EAL/D course assists students to participate more effectively in Australian education and society by providing them with the opportunity to learn Standard Australian English in varied, relevant, authentic and challenging contexts. This development of creative and critical English language skills, knowledge and understanding, and their engagement with literature and other textual forms, will contribute to an increased understanding of the diversity and values of Australian and other cultures.

## Course description:

The Year 11 EAL/D Course has four modules:

1. Language and Texts in Context
2. Close Study of Text
3. Texts and Society
4. School-developed module

While there are no prescribed texts for Year 11, students are required to study one substantial literary text, for example film, prose fiction, drama or a poetry text, which may constitute a selection of poems from the work of one poet. Students will also engage in speaking and listening components in each module and will be expected to engage in regular wide reading connected to, and described in, each of the modules.

## The HSC course:

**Students must complete the year 11 course as a prerequisite to the HSC course.**

The course has four modules:

1. Texts and Human Experiences
2. Language, Identity and Culture
3. Close Study of Text
4. Focus on Writing (studied concurrently with the above modules)

Students are required to study closely **three** types of prescribed texts, one drawn from each of the following categories: prose fiction, poetry **or** drama, film **or** media **or** non-fiction.

## Particular course requirements:

The Preliminary English EAL/D course requires students to:

- study one substantial literary text, for example; film, prose fiction, drama or a poetry text, which may constitute a selection of poems from the work of one poet
- study a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts
- support their study of texts with their own wide reading.

The HSC English EAL/D course requires students to:

- closely study **three** types of prescribed texts, **one** drawn from each of the following categories:
    - prose fiction
    - poetry **or** drama
    - film **or** media **or** non-fiction

Across Stage 6 in the EAL/D courses the selection of texts gives students experience of the following:

- a range of types of texts inclusive of prose fiction, drama, poetry, non-fiction, film, media and digital texts
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.

## HSC examination structure:

Examination specifications for English EAL/D have been available since Term 1, 2018.

# English Standard

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Students may not study any other Stage 6 English course in conjunction with English Standard.

## Why study English Standard?

**English Standard** is designed for all students to increase their expertise in English and consolidate their English literacy skills in order to enhance their personal, social, educational and vocational lives. The students learn to respond to and compose a wide variety of texts in a range of situations in order to be effective, creative and confident communicators.

The English Standard course is designed for students to increase their expertise in English to enhance their personal, educational, social and vocational lives. The English Standard course provides students, who have a diverse range of literacy skills, with the opportunity to analyse, study and enjoy a breadth and variety of English texts to become confident and effective communicators. English Standard offers a rich language experience that is reflected through the integrated modes of reading, writing, speaking, listening, viewing and representing.

**Note:** For the Year 12 English Standard course, students are required to complete the Year 11 course as a prerequisite.

## Course description:

- In the **Preliminary English Standard** course, students must study the Common Module, Reading to Write: Transition to Senior English, and two other modules - Contemporary Possibilities and the Close Study of Literature. Students must study a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts. The Year 11 course requires students to support the study of texts with their own wide reading.
- In the **HSC English Standard** course students study the Common Module – Texts and Human Experiences, and three other modules, Language, Identity and Culture, Close Study of Literature and The Craft of Writing.
- Students engage with texts that include widely acknowledged quality literature from the past and contemporary texts from Australia and other cultures. They explore language forms, features and structures of texts in a range of academic, personal, social, historical, cultural and workplace contexts. Students study, analyse, respond to and compose texts to extend experience, access information and assess its reliability. They synthesise the knowledge gained from a range of sources to fulfil a variety of purposes. Responding to and composing texts provide students with the opportunity to appreciate the imaginative and the affective domains and to recognise the ways texts convey, interpret, question and reflect opinions and perspectives.

## Main topics covered:

In the **Year 11 Standard** course students are required to:

- study one substantial literary text, for example film, prose fiction, drama or a poetry text, which may constitute a selection of poems from the work of one poet
- study a range of types of texts drawn from prose fiction, drama, poetry, non-fiction, film, media and digital texts
- support their study of texts with their own wide reading.

In the **HSC Standard** course students are required to:

- study **one** complex multimodal or digital text in Module A (this may include the study of film)
- study **one** substantial literary print text in Module B, for example prose fiction, drama or a poetry text, which may constitute a selection of poems from the work of one poet
- study a range of types of texts drawn from prose fiction, drama, poetry, non-fiction, film, media and digital texts
- support the study of texts with their own wide reading.

## Particular course requirements:

Across Stage 6 the selection of texts gives students experience of the following:

- a range of types of texts inclusive of prose fiction, drama, poetry, non-fiction, film, media and digital texts
- texts which are widely regarded as quality literature, including a range of literary texts written about intercultural experiences and the peoples and cultures of Asia
- a range of Australian texts, including texts by Aboriginal and/or Torres Strait Islander authors and those that give insights into diverse experiences of Aboriginal and/or Torres Strait Islander peoples
- texts with a wide range of cultural, social and gender perspectives
- integrated modes of reading, writing, listening, speaking, viewing and representing as appropriate.

## HSC examination structure:

There will be **two** examination papers in the examination.

## The importance of HSC English:

English is the only compulsory Stage 6 course and the only subject from which two units must contribute to the ten units that comprise a student's ATAR score.

# Mathematics Advanced

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Mathematics Standard

**Important note:** The University of Sydney has reintroduced prerequisites from 2019 onwards for a range of courses, including Economics, Commerce, Engineering and IT, Psychology, Pharmacy, Veterinary Science and Science. Entry into these courses at the University of Sydney will require students to meet the ATAR for their chosen course and to have achieved a Band 4 result in Mathematics Advanced (or better).

## What background knowledge do I need to study Mathematics?

Your Year 10 Mathematics teacher can advise to what degree you have demonstrated that you are able to:

- apply mathematics without guidance
- communicate effectively using appropriate mathematical language and notation
- use a range of strategies to solve problems
- solve unfamiliar problems

A successful Mathematics Advanced (2 Unit) student will have demonstrated most, if not all, of these skills during Year 10.

These skills can be found in the Course Performance Descriptors of the 5.1 to 5.3 Mathematics Pathway. A Record of School Achievement Grade A10, A9, B8, B7 will often indicate most of the above has been demonstrated.

## Why study Mathematics?

This course will consolidate and extend your reasoning ability in a broad range of mathematical contexts. You will apply mathematical techniques to the solution of practical problems.

## Course description:

The course is intended to give students who have demonstrated general competence in the skills of Stage 5 Mathematics, an understanding of and competence in, some further aspects of Mathematics which are applicable to the real world. It has general educational merit and is also useful for concurrent studies in science and commerce. The course is a sufficient basis for further studies in Mathematics as a minor discipline at tertiary level in support of courses such as the life sciences or commerce. Students who require more substantial mathematics at a tertiary level supporting the physical sciences, computer science or engineering, should undertake the Extension 1 or Extension 2 courses.

## Main topics covered:

**Preliminary Course**

- Working with Functions
- Trigonometry and Measure of Angles
- Trigonometric Functions and Identities
- Introduction to Differentiation
- Logarithms and Exponentials
- Probability and Discrete Probability Distributions

**HSC Course**

- Graphing Techniques
- Trigonometric Functions and Graphs
- Differential Calculus
- Applications of Differentiation
- Integral Calculus
- Modelling Financial Situations
- Descriptive Statistics and Bivariate Data Analysis
- Random Variables

## Particular course requirements:

You will need to maintain your level of knowledge and skills from both Preliminary and HSC sections of the course because the HSC assessments and examination will cover both sections of this course.

## HSC examination structure:

Examination specifications for Mathematics Advanced will be provided when they have been released by NESA.

## How is Mathematics relevant to tertiary studies and career choice?

The three related Mathematics courses (Mathematics Advanced, Mathematics Extension 1, and Mathematics Extension 2) provide a grounding in several strands of mathematics including calculus. Science-related tertiary courses also involve the study of calculus. If you elect such a tertiary course without having studied the Stage 6 Mathematics calculus course, you will be required to undertake a bridging course.

# Mathematics Extension 1

3 units in each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Mathematics Standard

## What background knowledge do I need to study Mathematics Extension 1?

Your Year 10 Mathematics teacher can advise to what degree you have demonstrated that you are able to:

- apply mathematics without guidance
- communicate effectively using appropriate mathematical language and notation
- use a range of strategies to solve problems
- solve unfamiliar problems.

Compared to the Mathematics Advanced (2 Unit) Course, achieving success in the Extension 1 Course is more likely for those girls who have demonstrated all, rather than most, of the above during Year 10.

The skills can be found in the Course Performance Descriptors of the 5.1 to 5.3 Mathematics Pathway. A Record of School Achievement Grade A10 or A9 will often indicate that the above have been demonstrated.

## Why study Mathematics Extension 1?

This course will consolidate and extend your reasoning ability in a broad range of mathematical contexts. You will apply mathematical techniques to the solution of practical problems. You will have an opportunity to demonstrate a superior level of communication through the use of mathematical notation and logical argument.

## Course description:

The content of this course, which includes the whole of the Mathematics Advanced (2 Unit) course, and its depth of treatment, indicate that it is intended for students who have demonstrated a mastery of the skills of Stage 5 Mathematics. Further, it is intended to service students who are interested in disciplines where a more sophisticated level of mathematical skills and ideas is required. The course is intended to give these students a thorough understanding of and competence in, aspects of mathematics, including many which are applicable to the real world. It has general educational merit and is also useful for concurrent studies in Science, Industrial Arts and Commerce. The course is a recommended minimum basis for further studies in mathematics as a major discipline at a tertiary level and for the study of mathematics in support of the physical and engineering sciences. Although the Extension 1 course is sufficient for these purposes, students of outstanding mathematical ability should consider undertaking the Extension 2 HSC course which begins in Term 4 of Year 11.

## Main topics covered:

**Preliminary Course**

- Further Work with Functions
- Polynomials
- Inverse Trigonometric Functions
- Further Trigonometric Identities
- Rates of Change
- Working with Combinatorics

**HSC Course**

- Proof by Mathematical Induction
- Introduction to Vectors
- Trigonometric Equations
- Further Calculus Skills
- Applications of Calculus
- The Binomial Distribution

## Particular course requirements:

You will need to maintain your level of knowledge and skills from both Preliminary and HSC sections of the course because the HSC assessments and examination will cover both sections of the course.

## HSC examination structure:

Examination specifications for Mathematics Extension 1 will be provided when they have been released by NESA.

## How is Mathematics Extension 1 relevant to tertiary studies and career choice?

The three related Mathematics courses provide a grounding in several strands of mathematics including calculus. Science-related tertiary courses also involve the study of calculus. If you elect such a tertiary course without having studied the Stage 6 Mathematics calculus course, you will be required to undertake a bridging course.

# Mathematics Extension 2 (HSC level only)

4 units in HSC
NESA Developed Course
Prerequisites: Preliminary Mathematics Extension 1
**Exclusions:** Mathematics Standard

## What background knowledge do I need to study Mathematics Extension 2?

Your Year 11 teacher can advise to what degree your Preliminary learning outcomes were achieved. You will need to have mastered all knowledge and skills so that you have a solid foundation in Mathematics. Your communication skills need to be concise; notation and logical arguments need to be precise.

## Why study Mathematics Extension 2?

This course will consolidate and extend your reasoning ability in a broad range of mathematical contexts. You will apply mathematical techniques to the solution of practical problems. You will have an opportunity to demonstrate a superior level of communication through the use of mathematical notation and logical argument. You will have an opportunity to study Mathematics at an advanced level so that problem solving is approaching a real-life situation.

## Course description:

The content of this course, which includes the whole of the Mathematics (2 Unit) course and the whole of the Extension 1 course, is intended for students who have demonstrated a mastery of the skills of Stage 5 Mathematics and similarly for the Extension 1 Preliminary. This course is designed for students with a special interest in mathematics, who have shown that they possess special aptitude for the subject. It involves considerable manipulative skill and a high degree of understanding of the fundamental ideas of algebra and calculus.

## Main topics covered:

**HSC Course**

- The Nature of Proof
- Further Proof by Mathematical Induction
- Further Work with Vectors
- Introduction to Complex Numbers
- Using Complex Numbers
- Further Integration
- Applications of Calculus to Mechanics

## Particular course requirements:

Throughout your studies you will be required to sit the Mathematics Advanced (2 Unit), Extension 1 and Extension 2 assessments although only the latter two will be used to calculate your HSC assessment marks.

## HSC examination structure:

Examination specifications for Mathematics Extension 2 will be provided when they have been released by NESA.

## How is the Mathematics Extension 2 relevant to tertiary studies and career choice?

The three related Mathematics courses provide a grounding in several strands of mathematics including calculus. Science-related tertiary courses also involve the study of calculus. If you elect such a tertiary course without having studied the Stage 6 Mathematics calculus course, you will be required to undertake a bridging course.

Mathematics Extension 2 goes beyond the prerequisite calculus, and in some cases, it may cover material that appears in your early tertiary studies.

# Mathematics Standard

2 units in each of Preliminary Mathematics Standard and HSC Mathematics Standard 2
NESA Developed Course
**Exclusions:** Students may **not** study any other Stage 6 Mathematics course in conjunction with Mathematics Standard.

## What background knowledge do I need to study Preliminary Mathematics Standard and HSC Mathematics Standard 2?

This new course is constructed on the assumption that students have studied the content and achieved the outcomes of the Mathematics Years 7 to 10 syllabus up to, and including, the content and outcomes of Stage 5.2.

## Why study Preliminary Mathematics Standard and HSC Mathematics Standard 2?

The purpose of the course is to provide an appropriate mathematical background for students who wish to enter occupations that require the use of a variety of mathematical and statistical techniques. The opportunities for creative thinking, communication and contextualised problem-solving assist students in finding solutions for the broad range of problems encountered in life beyond secondary schooling.

## Course description:

Preliminary Mathematics Standard focuses on mathematical skills and techniques which have direct application to everyday life.

The course provides students with the opportunity to develop an understanding of, and competence in, further aspects of mathematics through a large variety of real-world applications for a range of concurrent HSC studies, such as in the life sciences, the humanities and business studies.

## Main topics covered:

**Mathematics Standard Preliminary Course**

- Algebra
- Measurement
- Financial Mathematics
- Statistical Analysis

**Mathematics Standard 2 HSC Course**

- Algebra
- Measurement
- Financial Mathematics
- Statistical Analysis
- Networks

## Particular course requirements:

You will need to maintain your level of knowledge and skills from both Preliminary and HSC sections of the course because the HSC assessments and examination will cover both sections of the course.

## HSC examination structure:

Examination specifications for Mathematics Standard will be available in Term 3, 2017.

## How is Preliminary Mathematics Standard and HSC Mathematics Standard 2 relevant to tertiary studies and career choice?

The course provides a strong foundation for vocational pathways, in the workforce and in further training, and for university courses in the humanities, business, nursing and paramedical sciences.

# Agriculture

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do i need to study Agriculture?

There are no prerequisites for the course, but it is assumed that students have an interest in the production and marketing of plant and animal products.

## Why study Agriculture?

A study of Agriculture will promote an understanding of how the production of plant and animal products is linked to the processing and marketing of food and fibre products. Agricultural products contribute significantly to Australia's export income. A study is made of the total marketing chain, from the farm and the research laboratory, to the processing plant and retail outlet.

Students develop an awareness of the application of technology to the production, processing and marketing of products. Valuable vocational and life skills are learned through the study of Agriculture: skills of research, evaluation and communication. Opportunities are provided to engage in debate regarding welfare, ethical and legal issues relating to plant and animal research.

## Course description:

The Preliminary course incorporates the study of the interactions between the components of agricultural production, marketing and management, while giving consideration to the issue of sustainability of the farming system. This is an 'on-farm' course, with an emphasis on environmental sustainability.

The HSC course builds upon the Preliminary course. It places a greater emphasis on farm management to maximize productivity and environmental sustainability. The farm as a fundamental production unit provides a basis for analysing and addressing social, environmental and economic issues as they relate to sustainability. Because farmers need to respond to changing climatic and economic conditions, the HSC electives focus on innovations including new computer, satellite, robotic and biological technologies, as well as issues and challenges facing Australian agriculture.

## Main topics covered:

**Preliminary Course**

- Overview of Australian Agriculture
- The Farm Case Study
- Plant Production
- Animal Production

**HSC Course Core Topics**

- Plant/Animal Production
- Farm Product Study
- Elective – Choose **one** of the following electives to study:
    - Agri-food, Fibre and Fuel Technologies
    - Climate Challenge
    - Farming for the 21st Century

## Particular course requirements:

Practical experiences should occupy a minimum of 30 per cent of both Preliminary and HSC course time.

## Is there any practical work?

Yes. Practical work, including excursions, contributes towards 30 per cent of the course work.

## HSC examination structure:

One three-hour Theory Paper.

## How is Agriculture relevant to tertiary studies and career choice?

The study of Agriculture is useful for life science and environment-based courses as well as veterinary science, farm management, equine studies, animal husbandry and horticulture.

Experimental and research skills acquired during the course will prove beneficial to the study of any science course at tertiary level. Students are provided with a wide range of practical skills and an awareness of technologies associated with agriculture. The processes of marketing studied in Agriculture will provide a foundation for any commerce-related course.

# Biology

2 Units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do i need to study Biology?

Years 7 to 10 Science.

## Why study Biology?

An understanding of biological processes and new discoveries related to disease and genetics is important knowledge which influences our lives and lifestyle, Biology provides students with the working scientifically skills which are fundamental to the study of science and logical thinking.

## Course structure:

Preliminary: Modules 1 – 4 plus a Depth Study
HSC: Modules 5 – 8 plus a Depth Study

## Course description:

The Biology Stage 6 Syllabus explores the diversity of life from a molecular to a biological systems level. The course examines the interactions between living things and the environments in which they live. It explores the application of Biology and its significance in finding solutions to health and sustainability issues in a changing world.

Biology uses working-scientifically processes to develop scientific investigative skills. It focuses on developing problem-solving and critical-thinking skills in order to understand and support the natural environment. When working scientifically, students are provided with opportunities to design and conduct biological investigations both individually and collaboratively.

## Main topics covered:

**Preliminary**

- **Module 1: Cells as the Basis of Life** Cells are the basis of life. They co-ordinate activities to form colonial and multicellular organisms. Students examine the structure and function of organisms at both the cellular and tissue levels in order to describe how they facilitate the efficient provision and removal of materials to and from all cells in organisms. They are introduced to and investigate biochemical processes through the application of the working-scientifically skills processes. Students are introduced to the study of microbiology and the tools that scientists use in this field.
- **Module 2: Organisation of Living Things** Multicellular organisms typically consist of a number of interdependent transport systems that range in complexity and allow the organism to exchange nutrients, gases and wastes between the internal and external environments. Students examine the relationship between these transport systems and compare nutrient and gas requirements. Models of transport systems and structures have been developed over time, based on evidence gathered from a variety of disciplines. The inter-relatedness of these transport systems is critical in maintaining health and in solving problems related to sustainability in agriculture and ecology.
- **Module 3: Biological Diversity** Biodiversity is important to balance the Earth's ecosystems. Biodiversity can be affected slowly or quickly over time by natural selective pressures. Human impact can also affect biodiversity over a shorter time period. In this module, students learn about the theory of evolution by natural selection and the effect of various selective pressures. Monitoring biodiversity is key to being able to predict future change. Monitoring, including the monitoring of abiotic factors in the environment, enables ecologists to design strategies to reduce the effects of adverse biological change. Students investigate adaptions of organisms that increase the organism's ability to survive in their environment.

- **Module 4: Ecosystem Dynamics** The Earth's biodiversity has increased since life first appeared on the planet. The theory of evolution by natural selection can be used to explain periodic increases and decreases in populations and biodiversity. Scientific knowledge derived from the fossil record and geological evidence has enabled scientists to offer valid explanations for this progression in terms of biotic and abiotic relationships. Students engage in the study of past ecosystems and create models of possible future ecosystems so that human impact on biodiversity can be minimised. The study of ecosystem dynamics integrates a range of data that can be used to predict environmental change into the future.

**HSC**

- **Module 5: Heredity** Life continues through the processes of reproduction and heredity. Students expand their knowledge of evolution by understanding the cellular processes involved in increasing genetic diversity. They investigate reproduction and inheritance patterns in both plants and animals as well as the role of DNA in polypeptide synthesis and the uses of technologies in the study of inheritance patterns. Students also learn about contemporary research and the work of geneticists across a variety of industries, including medical applications and agriculture. They explore the effects on society and the environment through the application of genetic research.
- **Module 6: Genetic Change** Students learn about natural and human-induced causes and effects of genetic change, including mutations, environmental pressure and uses of biotechnology. Students investigate how the processes of inheritance and evolution are applied. The work of scientists in various fields of work, including agriculture, industry and medicine, can be explored within the context of biotechnology. The impact of biotechnology on biological diversity is also explored in this module.
- **Module 7: Infectious Disease** This module examines the treatment, prevention and control of infectious disease both locally and globally. It includes study of the human immune system and its response to an infectious disease. The value of studying infectious disease and its causes and effects is highlighted by the cost to humans in terms of losses in productivity and production and the impact on overall health. The module also considers medical and agricultural applications that draw on the work of a variety of scientists.
- **Module 8: Non-Infectious Disease and Disorders** Non-infectious disease and disorders are studies, including their causes and effects on human health. Technologies and their uses are explored in treating disease and disorders as well as the epidemiology of non-infectious disease in populations. This module examines the practical applications of STEM. It looks at the importance of understanding the multidisciplinary nature of science applications. It also examines physiology and engineered solutions to problems related to the management of human disorders.

## Is there any practical work?

Yes. It is expected that 35 hours of practical work will be undertaken, including the Depth Study.

## HSC examination structure:

Three-hour paper. Equal weighting given to Modules 5 to 8.

- Section I – Objective-response questions. (20 marks)
- Section II – 20 to 25 items. At least two items will be worth 7 to 9 marks. (80 marks)

## How is Biology relevant to tertiary studies and career choices?

The study of Biology is useful for the study of medicine, health sciences – dietetics, physiotherapy, exercise physiology, sports science, public health and environmental science courses. It is also an excellent foundation for the humanities and science law.

# Chemistry

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do i need to study Chemistry?

Years 7 to 10 Science.

## Why study Chemistry?

Chemistry explores the structure, composition and reactions of and between all elements, compounds and mixtures that exist in the universe. The discovery and synthesis of new compounds, the monitoring of elements and compounds in the environment, and an understanding of industrial processes and their applications to life processes are central to human progress and our ability to develop future industries and sustainability. It increases their understanding of chemistry as a foundation for undertaking investigations in a wide range of Science, Technology, Engineering and Mathematics (STEM) related fields. A knowledge and understanding of chemistry is often the unifying link between interdisciplinary studies.

## Course structure:

Preliminary: Modules 1 – 4 plus a Depth Study
HSC: Modules 5 – 8 plus a Depth Study

Throughout the course, students focus on working scientifically which includes: questioning and predicting, planning investigations, conducting investigations, processing data and information, analysing data and information, problem solving, and communicating.

**Preliminary**

- **Module 1: Properties and Structure of Matter** Matter can be either pure substances with distinct measurable properties (eg melting and boiling points, reactivity, strength, density) or mixtures with properties that are dependent on the identity and relative amounts of the substances that make up the mixture. The analysis of these properties has led to the expansion of the periodic table of elements and the advancement of atomic theory. The periodic table is used to examine trends and patterns that exist between chemical elements and atoms in order to discover that fundamental particles, and their role in the structure of an atom, give all chemicals their properties.
- **Module 2: Introduction to Quantitative Chemistry** Chemists quantify reactions to make predictions about yields and communicate to specific audiences for specific purposes. Using the mole concept, students select and use appropriate mathematical representations to solve problems, make predictions and calculate the mass of reactants and products.
- **Module 3: Reactive Chemistry** Chemical reactions involve the creation of new substances and associated energy transformations, which are commonly observable as changes in the temperature of the surroundings and/or the emission of light. These reactions are harnessed and controlled by chemists to produce substances that lead to the development of useful products. Chemicals react at different speeds, yet they basically involve the breaking and making of chemical bonds. Students study how chemicals react, the changes in matter and energy that take place during these reactions, and how these chemical reactions and changes relate to the chemicals that are used in everyday life.
- **Module 4: Drivers of Reactions** Students examine the relationship between enthalpy and entropy in calculating the Gibbs free energy, and examine the roles that enthalpy and entropy play in the spontaneity of reactions. They learn that all chemical reactions involve the creation of new substances and associated energy transformations, commonly observed as changes in temperature of the surrounding environment and/or emission of light. Heat energy changes in chemical reactions are investigated and described using terms such as endothermic and exothermic. Reactions are explained in terms of the law of conservation of energy. Hess's Law is used to calculate enthalpy changes involved in the breaking and

making of bonds.

**HSC**

- **Module 5: Equilibrium and Acid Reactions** Chemical systems may be open or closed. They include physical changes and chemical reactions that can result in observable changes to a system. Students study the effects of changes in temperature, concentration of chemicals and pressure on equilibrium systems, and consider that these can be predicted by applying Le Chatelier's principle. Students also analyse the quantitative relationship between products and reactants in equilibrium reactions to determine an equilibrium constant. From this calculation, they predict the equilibrium position, either favouring the formation of products or reactants in a chemical reaction. Students make reliable predictions by comparing equilibrium calculations and equilibrium constants to determine whether a combination of two solutions will result in the formation of a precipitate.
- **Module 6: Acid/Base Reactions** Students analyse how and why the definitions of both an acid and a base have changed over time, and how the current definitions characterise the many chemical reactions of acids. Acids react in particular ways to a variety of substances. These reactions follow a pattern that students identify and explore in detail. Acids and bases, and their reactions, are used extensively in everyday life and in the human body. The chemistry of acids and bases contributes to industrial contexts and the environment. Therefore, it is essential that the degree of acidity in these situations is continually monitored. By investigating the qualitative and quantitative properties of acids and bases, students learn to appreciate the importance of factors such as pH and indicators.
- **Module 7: Organic Chemistry** Current and future applications of chemistry include techniques to synthesise new substances – including pharmaceuticals, fuels and polymers – to meet the needs of society. Each class of organic compounds displays characteristic chemical properties and undergoes specific reactions based on the functional groups present. These reactions, including acid/base and oxidation reactions, are used to identify the class of an organic compound. By considering the primary, secondary and tertiary structures of organic materials, students gain an understanding of the properties of materials – including strength, density and biodegradability – and relate these to proteins, carbohydrates and synthetic polymers.
- **Module 8: Applying Chemical Ideas** The identification and analysis of chemicals is of immense importance in scientific research, medicine, environmental management, quality control, mining and many other fields. Students investigate a range of methods used to identify and measure quantities of chemicals. They investigate and process data involving the identification and quantification of ions present in aqueous solutions. This is particularly important because of the impact of adverse water quality on the environment. Students deduce or confirm the structure and identity of organic compounds by interpreting data from qualitative tests of chemical reactivity and determining structural information using proton and carbon-13 nuclear magnetic resonance (NMR) spectroscopy.

## Is there any practical work?

Yes. It is expected that 35 hours of practical work will be undertaken, including the Depth Study.

## HSC examination structure:

Three-hour paper (a data sheet, formulae sheet and Periodic Table will be provided).
Equal weighting given to Modules 5 to 8.

- Section I – Objective-response questions. (20 marks)
- Section II – 20 to 25 items. At least two items will be worth 7 to 9 marks. (80 marks)

## How is Chemistry relevant to tertiary studies and career choice?

The course provides the foundation knowledge and skills required to study chemistry after completing school and supports participation in a range of careers in chemistry and related interdisciplinary industries. It is an essential discipline that currently addresses, and will continue to address, our energy needs and uses, the development of new materials, and sustainability issues as they arise. It is useful for life science and environment courses, medicine, medical sciences and biotechnological courses.

# Earth and Environmental Science

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Earth and Environmental Science?

Years 7 to 10 Science.

## Why study Earth and Environmental Science?

As well as teaching knowledge of significant discoveries and topics which influence our Earth and environment, it provides students with the skills which are fundamental to lifelong learning and logical thinking.

## Course structure:

Preliminary: Modules 1 – 4 plus a Depth Study
HSC: Modules 5 – 8 plus a Depth Study

## Course description:

Earth and Environmental Science explores the Earth's renewable and non-renewable resources and environmental issues. An understanding of the Earth's resources and the ability to live sustainably on the planet is a central purpose. The course uses the Working Scientifically skills to develop knowledge through the application of those skills. Students engage with inquiry questions to explore knowledge of the Earth. They undertake practical and secondary-sourced investigations to acquire a deeper understanding of the Earth's features and naturally occurring phenomena and cycles. Fieldwork is an integral part of these investigation processes.

## Main topics covered:

**Preliminary**

- **Module 1: Earth's Resources** Students engage with rock composition and the origins of the component materials, including minerals. They learn about soil, the rock cycle and technologies used to gather geological data. Students explore science as a human endeavour in relation to the work of geologists, including the significance of this work to the mining of non-renewable resources. They also explore technologies used to gather and interpret data, including absolute and relative dating of rocks.
- **Module 2: Plate Tectonics** The Earth's surface is made of a series of tectonic plates that move and interact with one another. Solid evidence for the theory of plate tectonics was not proposed until the early 20th century. Initially, the theory was dismissed because of a lack of evidence. Eventually, however, the work of a series of scientists was combined to produce enough evidence to support acceptance of the theory. In many cases, the development of new technologies has allowed the individual pieces of this scientific puzzle be put together. The theory of plate tectonics can explain not only the location and causes of earthquakes and volcanoes, but also the location of mountain ranges (both above and under the oceans) and deep ocean floor trenches.
- **Module 3: Energy Transformations** Earth's processes require energy which may be transformed from one form into another or transferred between objects. Energy from the Sun and the Earth's interior control processes within and between the Earth's spheres. Heat and gravitational energy in the Earth's interior also drive the movements of tectonic plates. Energy transfers that occur on different timescales between the atmosphere, oceans and land generate weather and climate phenomena. The influence of cyclic phenomena, including El Niño and La Niña, affect global weather patterns.
- **Module 4: Human Impacts** Humans use the Earth's resources to maintain life and provide

infrastructure. However, natural resources are not infinite. Renewable resources such as water, soil, plants and animals can be managed sustainably using scientific knowledge. Incomplete information or failure to consider the impact of resource use, may cause environmental damage. Scientific knowledge enables efficient use of resources and also the rehabilitation of damaged ecosystems. Healthy ecosystems provide renewable resources, purify air and water, regulate climate and provide cultural services.

**HSC**

- **Module 5: Earth's Processes** Since the formation of the Earth, both the atmosphere and lithosphere have been continually changing, each influencing the other. The processes of plate tectonics, together with the formation of water and the introduction of life, have further contributed to these changes. All three, in combination, have altered and continue to alter both the atmosphere and lithosphere. With the discovery of fossils, it became possible to develop the geological timescale and to determine when mass evolution and extinction events occurred. Both were and are strongly influenced by the phases of the plate tectonic supercycle, which has a significant effect on climate.
- **Module 6: Hazards** Earthquakes, volcanic activity and cyclones have a significant impact on the Earth's environment, affecting thousands of people, causing enormous damage. The probability of such an event occurring is closely linked to an area's proximity to a plate boundary. The type of plate boundary can also influence the severity of the event. Technologies can be used to predict hazardous events and mitigate their effects. However, humans are still not able to prevent these events from occurring. Whether the climate alters the frequency and magnitude of these events is also uncertain. Students will explore the use, development and analysis of seismic data in order to examine significant seismic events.
- **Module 7: Climate Science** A significant global concern relates to natural and scientific evidence of anthropogenic climate variation. The acidification and warming of oceans can impact on marine life, and evidence indicates that rising sea levels could also impact on human communities in low-lying locations around the world. Students examine the mechanisms and scientific evidence for climate variation. They distinguish between evidence of natural processes and scientific evidence of anthropogenic influences, which both cause the Earth's climate to change.
- **Module 8: Resource Management** Australia is rich in both renewable natural resources (eg agricultural production, sunlight) and non-renewable natural resources (eg minerals, fossil fuels). Students examine how the extraction and disposal of waste can greatly impact on the surrounding environment, affecting the quality and availability of renewable resources such as water and living organisms. The extent of this impact is referred to as an 'ecological footprint'. Scientific models of resource extraction, use and management have developed over time in response to new discoveries and through the incorporation of sustainable practices, many of which have been developed by Aboriginal and Torres Strait Islander peoples. The world's population is increasing, and more natural resources are being extracted to provide food, consumer goods, energy and infrastructure.

## Is there any practical work?

Yes. It is expected that 35 hours of practical work will be undertaken, including the Depth Study.

## HSC examination structure:

Three-hour paper (a Geological Time Scale will be provided for reference).
Equal weighting given to Modules 5 to 8.

- Section I – Objective-response questions. (20 marks)
- Section II – 20 to 25 items. At least two items will be worth 7 to 9 marks. (80 marks)

## How is Earth and Environmental Science relevant to tertiary studies and career choice?

The study of Earth and Environmental Science is useful for the study of geology, resource management, climate science, meteorology, geohazards, agriculture, and atmospheric and environmental science courses. It is also an excellent foundation and partner for the humanities, economics and science law.

# Investigating Science

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Investigating Science?

Years 7 to 10 Science.

## Why study Investigating Science?

The Investigating Science course is designed to complement the study of the science disciplines by providing additional opportunities for students to investigate and develop an understanding of scientific concepts, their current and future uses, and their impacts on science and society. The course draws on and promotes interdisciplinary science, by allowing students to investigate a wide range of STEM (Science, Technology, Engineering and Mathematics) related issues and concepts in depth. It encourages the development of a range of skills that enhance a student's ability to participate in community life and within a fast-changing technological landscape.

## Course structure:

Preliminary: Modules 1 to 4 plus a Depth Study
HSC: Modules 5 to 8 plus a Depth Study

## Course description:

The Investigating Science course is designed to assist students of all abilities engage with scientific processes, and apply those processes to investigate relevant personal, community and global scientific issues. The ongoing study of science and the specific Working Scientifically skills, processes and their application have led humans to accumulate an evidence-based body of knowledge about human interactions – past, present and future – with the world and its galactic neighbourhood. The course provides a foundation for students to value investigation, solve problems, develop and communicate evidence-based arguments, and make informed decisions.

**Preliminary**

- **Module 1: Cause and Effect – Observing** Students explore the importance of observation and the collection of quantitative and qualitative data in scientific investigations. They conduct their own practical investigation, either individually or collaboratively, which is used to demonstrate the importance of making detailed and accurate observations, determining the types of variables and formulating testable scientific hypotheses.
- **Module 2: Cause and Effect – Inferences and Generalisations** Scientific inquiry follows on from humans making inferences and generalisations from commonly held understandings. Such inferences and generalisations have led to a wide range of investigations being performed throughout history, culminating in breakthroughs in scientific understanding. Many hypotheses, when found to be correct, have generated further inquiry and created the need to develop new technologies for further observation. Students focus on designing and evaluating investigations, drawing inferences, making generalisations, and developing and testing hypotheses through the collection and processing of data.
- **Module 3: Scientific Models** Students recognise that many scientific models have limitations and are modified as further evidence comes to light. For this reason, scientific models are continually evaluated for accuracy and applicability by the global scientific community through the process of peer review. Students construct and evaluate their own models, which are generated through practical investigation.

**HSC**

- **Module 4: Theories and Laws** The term 'science' comes from the Latin *scientia*, which means 'a knowledge based on demonstrable and reproducible data'. Reproducible data is used by scientists to develop theories and laws to explain and describe phenomena. Theories provide a coherent understanding of a wide range of phenomena. A law is usually a

statement that can be expressed as a mathematical relationship. It describes phenomena in nature, with no exceptions, at a point in time. Testing scientific theories drives scientific breakthroughs and questions current understandings.

- **Module 5: Scientific Investigations** Students explore the importance of accuracy, validity and reliability in relation to the investigative work of a scientist. They examine the differences between a scientific investigation and a scientific report, recognising that although the report format follows a sequential order, the investigation need not.
- **Module 6: Technologies** The rapid development of new technologies has enhanced industrial and agricultural processes, medical applications and communications. Students explore the dynamic relationship between science and technology where the continuing advancement of science is dependent on the development of new tools and materials. They also examine how advances in science inform the development of new technologies and so reflect the interdependence of science and technology.
- **Module 7: Fact or Fallacy?** The scientific process is the most powerful tool available for generating knowledge about the world. It uses evidence and measurement to find truth and highlight misinterpretations and misrepresentations. Science as a human endeavour is subject to human failings, which can contribute to fallacies, misinterpretations and, on occasion, fraud. For this reason, scientific processes attempt to compensate for human failings by questioning evidence, re-testing ideas, replicating results and engaging with peer review in order to evaluate research. They explore examples of scientific claims made in the media and investigate the benefits of peer review.
- **Module 8: Science and Society** Those who pursue the study of science have created processes, tools and products that challenge and influence society and some of its belief systems, ethics and societal norms. In response, society debates and regulates science in order to prevent harmful developments and unacceptable outcomes, and to allow for new and beneficial products, processes and ideas. Science also can be affected by society, as well as governments, industry, economic interests and cultural perspectives.

## HSC examination structure:

Examination specifications for Investigating Science will be available in Term 3 2017.

## How is Investigating Science relevant to tertiary studies and career choices?

Investigating Science encourages the development of a range of capabilities and capacities that enhance a student's ability to participate in all aspects of community life and within a fast-changing technological landscape. The knowledge, understanding and skills gained from this course are intended to support students' ongoing engagement with science, and to form the foundation for further studies and participation in current and emerging STEM-related post-school activities and industries.

# Physics

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do i need to study Physics?

Years 7 to 10 Science.

## Why study Physics?

Physics skills and knowledge can help create a foundation for undertaking post-school studies in a wide range of Science, Technology, Engineering and Mathematics (STEM) fields. It is a discipline that utilises innovative and creative thinking and develops problem-solving skills.

## Course structure:

Preliminary: Modules 1 – 4 plus a Depth Study
HSC: Modules 5 – 8 plus a Depth Study

## Course description:

Physics involves the study of matter and its motion through space and time, along with related concepts that include energy and force. Knowledge of these concept allows students to understand the physical world around them and how it works. It deals with the laws of nature governing phenomena relating to the very big, like stars and the Universe, to the very small, such as the quanta, quarks and subatomic particles.

## Main topics covered:

**Preliminary**

- **Module 1: Kinematics** Motion is a fundamental observable phenomenon. The study involves describing, measuring and analysing motion. Uniformly accelerated motion is described in terms of relationships between measurable scalar and vector quantities, including displacement, speed, velocity, acceleration and time.
- **Module 2: Dynamics** The relationship between the motion of objects and the forces that act on them is often complex. However, Newton's Laws of Motion can be used to describe the effect of forces on the motion of single objects and simple systems. By applying Newton's laws directly to simple systems, and, where appropriate, the law of conservation of momentum and law of conservation of mechanical energy, students examine the effects of forces.
- **Module 3: Waves and Thermodynamics** Wave motion involves the transfer of energy without the transfer of matter. By exploring the behaviour of wave motion and examining the characteristics of wavelength, frequency, period, velocity and amplitude, students further their understanding of the properties of waves. Students also examine energy and its transfer in the form of heat, from one place to another. Thermodynamics is the study of the relationship between energy, work, temperature and matter.
- **Module 4: Electricity and Magnetism** Atomic theory and the laws of conservation of energy and electric charge are unifying concepts in understanding the electrical and magnetic properties and behaviour of matter. Students examine how the analysis of electrical circuits' behaviour and the transfer and conversion of energy in electrical circuits has led to a variety of technological applications.

**HSC**

- **Module 5: Advanced Mechanics** Students develop an understanding that all forms of complex motion can be understood by analysing the forces acting on a system, including the energy transformations taking place within and around the system. By applying new mathematical techniques, students model and predict the motion of objects within systems.

They examine two-dimensional motion, including projectile motion and uniform circular motion, along with the orbital motion of planets and satellites, which are modelled as an approximation to uniform circular motion.

- **Module 6: Electromagnetism** Discoveries about the interactions that take place between charged particles and electric and magnetic fields not only produced significant advances in physics, but also led to significant technological developments. Understanding the similarities and differences in the interactions of single charges in electric and magnetic fields provides students with a conceptual foundation for this module. Phenomena that include the force produced on a current-carrying wire in a magnetic field, the force between current-carrying wires, Faraday's Law of Electromagnetic Induction, the principles of transformers and the workings of motors and generators can all be understood as instances of forces acting on moving charged particles in magnetic fields.
- **Module 7: The Nature of Light** Prior to the 20th century, physicists, including Newton and Maxwell, developed theories and models about mechanics, electricity and magnetism and the nature of matter. These theories and models had great explanatory power and produced useful predictions. However, the 20th century saw major developments in physics as existing theories and models were challenged by new observations that could not be explained. These observations led to the development of quantum theory and the theory of relativity. Throughout this module, students explore the evidence supporting these physical theories, along with the power of scientific theories to make useful predictions.
- **Module 8: From Universe to Atom** Beginning in the late 19th and early 20th centuries, experimental discoveries revolutionised the accepted understanding of the nature of matter on an atomic scale. Observations of the properties of matter and light inspired the development of better models of matter, which in turn have been modified or abandoned in the light of further experimental investigations. By studying the development of the atomic models, an understanding of quantum mechanics and radioactive decay and particular accelerators, students are exposed to the journey the study of Physics has taken to reach the current Standard Model of matter and its impact on modern life.

## Is there any practical work?

Yes. This contributes towards 30 per cent of the course work.

## HSC examination structure:

Three-hour paper (a data sheet, formulae sheet and Periodic Table will be provided).
Equal weighting given to Modules 5 to 8.

- Section I – Objective-response questions. (20 marks)
- Section II – 20 to 25 items. At least two items will be worth 7 to 9 marks. (80 marks)

## How is Physics relevant to tertiary studies and career choice?

The study of Physics is useful as a foundation for any career in science, medicine, engineering or technology. The applied critical-thinking, problem-solving and data analysis skills developed in the course are valuable for any career, including business and finance.

# Science Extension (HSC level only)

1 unit for HSC
NESA Developed Course

## What background knowledge do I need to study Science Extension?

Students must undertake at least one other Science subject to be eligible to study Science Extension in Year 12. Concurrent subject choices include one (or a combination up to 7 units of study) of: Biology, Chemistry, Earth and Environmental Science, or Physics.

## Why study Science Extension?

The study of Science Extension Stage 6 enables students with a passion for science to explore the development of the scientific process over time, undertake high-level authentic scientific research, communicate findings and propose further research.

## Course structure:

The Scientific Research Project comprises the creation and maintenance of a Scientific Research Portfolio evidencing the development of a Scientific Research Report. These documents are developed concurrently with the study of Modules 1 to 4.

- **Module 1: The Foundations of Scientific Thinking** Scientific laws, theories, concepts and methods undergo changes over time. Theories are formulated to explain and make sense of what we observe. These theories are changed and replaced by newer theories when more sophisticated observations are made, or scientists look at existing theories from a new perspective. Scientists understand that there are few absolute truths and that changing ethical frameworks and methods, over time, influence the development of science. There are many scientific laws and theories that have not been changed significantly since their inception, such as the law of conservation of mass, energy laws and cell theory. Much scientific research is about applying existing scientific theories to new contexts, shown through Einstein's thought experiments that took a century for the evidence to support them to be observed, measured and confirmed. Students explore historic and cultural observations, the way scientific research has changed over time, and how ethical frameworks have influenced this process. They consider philosophical arguments in relation to the nature of science to deepen their understanding and refine their own views of and about science.

- **Module 2: The Scientific Research Proposal**
  - **Scientific Research Question and Hypothesis** Students are to propose a scientific research question that relates to one or more of the science disciplines, formulate a relevant hypothesis and conduct scientific research into an issue, problem, emerging theory or discovery, using relevant publicly available data sets. Students create a Scientific Research Portfolio to evidence and substantiate the research process.
  - **The Beginnings of Scientific** *Research* Successful scientific research depends upon the quality of the scientific research question. It must be meaningful, significant and feasible and clearly guide the scientific research process. It should be framed with consideration of methodologies, data collection and processing issues. Students will learn to develop a question that enables scientific research by exploring peer-reviewed published literature for guidance. Students will be guided to undertake relevant scientific research and to develop a detailed plan that lays the foundations for the subsequent processes to be employed to address a developed hypothesis.
  - **Methodology and Data Collection** Students are provided with opportunities to use established scientific methods to gather, process, analyse and represent valid, accurate and reliable quantitative and qualitative data. They will also apply methods to appropriately store, record and organise data.

- **Module 3: The Data, Evidence and Decisions** Modern scientific research involves making observations and measurements that produce ever-increasing amounts of data. All observations and measurements contain some uncertainty and error. Statistical methods help us quantify and characterise this uncertainty. Data usually contains patterns and trends available for analysis, using a variety of tools in order to derive meaning from them. Students will develop knowledge, understanding and skills related to the analytical techniques for accessing, storing and analysing high-volume, unstructured, secondary-sourced, publicly available data set(s). Students will be provided with the opportunity to consider limitations and construct plausible inferences while understanding degrees of uncertainty in the data. Students will explore the difference between the concepts of proving that something is true and measuring the probability of a certain result by understanding falsification and statistical levels of confidence.

- **Module 4: The Research Report** In order for science to progress, education, public funding and public support are required. Excellent oral and written communication skills are imperative to achieve these goals, as is the publication of a concise, clearly written, authentic, peer-reviewed scientific research report. A scientific research report follows a specific format that ensures that the scientific community can readily access and examine its contents, including related data, and to repeat methodologies if required, to evidence claims made or conclusions drawn. All articles, papers or scientific reports must include a title, abstract, introduction, methodology, an analysis of uncertainties, results, discussion and a conclusion with a relevant bibliography and referencing. This module assists students in making final additions to the related Scientific Research Portfolio and to complete the related Scientific Research Report.

## Is there any practical work?

Yes. The main feature of this subject is the Scientific Research Project

## HSC examination structure:

The external HSC examination measures student achievement in a range of syllabus outcomes. The external examination and its marking relate to the syllabus by:

- providing clear links to syllabus outcomes
- enabling students to demonstrate the levels of achievement outlined in the performance band descriptions
- applying marking guidelines based on criteria that relate to the quality of the response
- aligning performance in the examination each year to the standards established for the course.

The Science Extension course will use a new model of external assessment. The specifications will be available for feedback and piloting 2017–2018.

## How is Science Extension relevant to tertiary studies and career choice?

Science Extension is designed for students with an interest in scientific research. The course lays a foundation for students planning to pursue further study in science, technology, engineering or mathematics (STEM) based courses offered at the tertiary level, and to engage in new and emerging industries.

# Design and Technology

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Design and Technology?

Previous study of Design and Technology is not expected when electing this course for study during Years 11 and 12. Prior knowledge from students is not a requirement nor an indicator for their level of success. The course comprises theoretical and practical work while satisfying the needs of pre-determined design briefs with the use of a design process.

## Why study Design and Technology?

Design and Technology is the perfect catalyst for design-based tertiary study in design fields such as product design, architecture, graphic design, design journalist, information design, interior design and in some cases, engineering. Students are presented with opportunities to develop problem-solving skills, time management and lateral thinking while incorporating innovative production methods such as the use of 3D printers, laser cutter and coding.

By closely following a design process, students can link knowledge from other subjects that can complement and improve their designs at each stage. Subjects such as Science, Physics, Business Studies, Commerce and Visual Arts can provide technical or specific knowledge to assist in justification of visible thinking.

## Course description:

The Preliminary course involves the study of architecture via 2D CAD, 3D modelling and consideration of materials and function of design. Students are encouraged to design and test possible solutions that incorporate sustainable materials and concepts that utilise natural elements to improve the overall function. Biomimicry is another area of study where students have the opportunity to design and produce products, structures, and systems that are modelled on biological entities and processes. Both units of work will incorporate a graphic-designed and digitally constructed portfolio with a practical project, both of which will demonstrate sound experimentation, prototyping and testing.

The HSC course builds upon the Preliminary course and includes the study of recent innovations that place high significance on emerging technologies and contemporary design trends. Students will use this information to direct their innovative Major Design Project (MDP). Sustainable materials, ethical designs and entrepreneurial skills are of high importance when designing and producing the design project.

Practical projects are supported by a portfolio that documents, justifies and evaluates all decisions, research and practical steps undertaken during the entire project. Final practical and portfolio components are assessed externally by NESA.

## Main topics covered:

**Preliminary**

- Design Process:
    - Identifying and analysing needs, wants and opportunities
    - Functional and aesthetic criteria for success
    - Determine areas of investigation
    - Finance and time management processes
    - Generation of ideas
    - Research of existing ideas and explanation of degree of difference
    - Consideration of design factors
    - Innovative production skills with emerging technologies

- Realisation of design concept:
    - Innovating production processes
    - Exploration and evaluation of material properties
    - Experimentation of production methods and techniques
    - 2D and 3D CAD using industry standard software
- Evaluation:
    - Ongoing evaluation
    - Impact on society and the environment
    - Comparison to previously established criteria for success
    - Preliminary Design Projects:
    - Project 1: Architecture
    - Project 2: Biomimicry Design

**HSC**

- Design Process:
    - Identifying and analysing needs, wants and opportunities
    - Functional and aesthetic criteria for success
    - Determine areas of investigation
    - Finance and time-management processes
    - Generation of ideas
    - Research of existing ideas and explanation of degree of difference
    - Consideration of design factors
    - Innovative production skills with emerging technologies
- Realisation of design concept:
    - Innovating production processes
    - Exploration and evaluation of material properties
    - Experimentation of production methods and techniques
    - 2D and 3D CAD using industry standard software
- Evaluation:
    - Ongoing evaluation
    - Impact to society and the environment
    - Comparison to previously established criteria for success

## Major design project and supporting documentation (portfolio)

Students may choose any area of interest. Students have an opportunity to design and produce a product, system or environment that satisfies a genuine need. Students are strongly encouraged to seek professionals currently in the workforce who need designed solutions. If successful, these solutions have the potential to be possible business beginnings. There will be a small charge to cover consumables.

## HSC examination structure:

- Written paper – 40 marks, 1½ hours – Divided into three sections:
    - Section I Multiple-choice questions 10 marks
    - Section II Short-answer questions 15 marks
    - Section III Structured extended-response question 15 marks

- Major Design Project – 60 marks – Made up of three components:
    - Project Proposal and Project Management 15 marks
    - Project Development and Realisation 35 marks
    - Project Evaluation 10 marks

# Food Technology

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Food Technology?

There are no prerequisites for Years 11 and 12 Food Technology. Students do not need to have studied Food Technology in Years 9 and 10 to be successful in the HSC course. The course incorporates components of both theoretical and practical work. This subject complements studies in other courses such as Hospitality, PDHPE, Biology, Chemistry, Economics and Business Studies.

## Why study Food Technology?

The study of Food Technology provides students with a broad knowledge of issues surrounding food and its associated technologies. Students will develop knowledge and understanding about the production, processing and consumption of food. The nature of food and human nutrition, along with an appreciation of the importance of food to health and its impact on society are also considered. Skills will be developed in researching, analysing and communicating food issues, food preparation and the design, implementation and evaluation of solutions to food situations.

The knowledge, skills and attributes gained through the study of Food Technology will give students the potential to contribute positively to their own well-being and the social, economic and ecological future of Australia.

## Course description:

Students will examine the factors that have influenced food availability and selection in Australia and investigate current food-consumption patterns. Food handling is addressed with an emphasis on ensuring food safety and managing the sensory characteristics and functional properties of food to produce a quality product. The role of nutrition in contributing to the health of the individual and the social and economic future of Australia is explored. The structure of the Australian food industry is outlined and the operations of one organisation investigated. Production and processing practices are examined and their impact evaluated. The activities that support food-product development are identified along with the process applied in the development of a food product. Contemporary food issues related to nutrition are raised, investigated and debated.

## Main topics covered:

**Preliminary Course**

- Food Availability and Selection
- Food Quality
- Nutrition

**HSC Course**

- The Australian Food Industry
- Food Manufacture
- Food Product Development
- Contemporary Nutrition Issues

## Particular course requirements:

Practical experiences are an integral part of the Food Technology course. These activities include a variety of practical sessions as well as experimental work. Students will be required to purchase and use the College Food Technology kit. There will be a charge at the end of each term to cover food costs.

## HSC examination structure:

There is one three-hour paper:

| | | |
|---|---|---|
| • Section I | Multiple-choice questions | 20 marks |
| • Section II | Short-answer questions | 50 marks |
| • Section III | Structured response | 15 marks |
| • Section IV | Extended response | 15 marks |

## How is Food Technology relevant to tertiary studies and career choice?

Universities and TAFE offer potential for further study in food technology, home economics, dietetics, food marketing, food product development, food legislation and health studies. Possible career paths include food journalism and photography, recipe development, teaching, food-product development and multiple health-related medical areas.

# Hospitality

2 units for each of Preliminary and HSC
NESA Developed Course – Category B Course for ATAR calculation

## What background knowledge do I need to study Hospitality?

There are no prerequisites to study Hospitality.

## Why study hospitality?

Hospitality is a course for students who have a passion for food preparation and the hospitality industry. Students may wish to work in the hospitality industry, either as a long-term career or in part-time or temporary hospitality positions. However, many students study this course as they simply enjoy learning about, and participating in, the hospitality industry.

## Course description:

Hospitality is a dual-accredited course resulting in the Australian Qualifications Framework qualification of Certificate II in Hospitality Kitchen Operations, as well as a Higher School Certificate mark which may count towards the ATAR. The course presents students with the opportunity to acquire the knowledge and skills required to perform a range of tasks in a variety of industry environments.

The Hospitality course is divided into focus areas each with related units of work. Over two years, students cover four mandatory areas which concentrate on developing the skills to work effectively in a hospitality environment. Stream units for Kitchen Operations and Cookery cover the knowledge and skills specific to this sector of the industry. In addition, students complete a selection of elective subjects that are not examinable in the HSC examination.

## Main topics covered:

In the core of this course, students concentrate on developing the skills to work effectively in a hospitality environment. These include mandatory focus areas, stream units and possible elective units.

The **mandatory** focus area includes units with a focus on:

- Hygiene practices for food safety
- Safe-work practices
- Working effectively with others
- Sourcing and using information on the hospitality industry

The **stream** units for Kitchen Operations and Cookery focus on:

- Using food-preparation equipment
- Prepare dishes using basic methods of cookery
- Cleaning kitchen premises and equipment
- Safe food-handling practices

Possible **elective** units may include:

- Prepare simple dishes
- Use cookery skills effectively
- Maintain the quality of perishable supplies
- Produce appetizers and salads
- Produce vegetable, fruit, egg and farinaceous dishes

**AQF VET Qualification**

The Hospitality (240 indicative hours) course provides a pathway to the following qualification:

- SIT20312 Certificate II in Kitchen Operations.

This qualification may be recognised as prior learning for related tertiary studies.

## Particular course requirements:

The Hospitality course has a very large practical component. All students are required to be appropriately dressed to industry standards for all practical lessons. This means that each student must have their own full chef's uniform and their own toolbox containing essential equipment and tools. There will be a charge at the end of each term to cover food costs.

Due to the extended practical sessions required for the completion of this course, it is possible that these will be scheduled outside of the school timetable. A commitment of up to 90 minutes per week is anticipated and may take place either before or after school.

## Work Placement

A compulsory component of the course is work placement. Over the two-year course, students must undertake a minimum of 70 hours work in the hospitality industry. Students will complete work placement during term time. However, students may be required to complete some work placement during school holidays. *Pymble*, in conjunction with a provider, organises work placement.

## HSC examination structure:

This will involve a two-hour written examination. The paper will consist of:

| | | |
|---|---|---|
| • Section I | Objective-response questions | 15 marks |
| • Section II | Short-answer questions | 35 marks |
| • Section III | Structured-response question | 15 marks |
| • Section IV | Extended-response question | 15 marks |

The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive AQF qualifications.

## Competency assessment:

Hospitality is a dual-accredited course which enables students to receive an AQF qualification, at the same time meeting the NESA requirements for an ATAR after sitting the HSC.

The AQF qualification is assessed through the achievement of competency standards. This means that students work to develop the competencies, skills and knowledge described in each unit. To be assessed as competent, a student must demonstrate to a qualified assessor that they can effectively carry out the various tasks and combinations of tasks listed to the standard required in the appropriate industry. There is no mark awarded in competency-based assessment. Students are assessed as either 'competent' or 'not yet competent'. Competency-based assessment determines the vocational qualification that a student will receive.

## How is Hospitality relevant to tertiary studies and career choice?

Possible occupational outcomes include employment in the food service and catering sector, hotel management, sales and marketing within the hospitality industry, human resources and leisure and entertainment sectors.

# Software Design and Development

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Software Design and Development?

Previous study of Information and Software Technology is not expected when electing this course for study during Years 11 and 12. Prior knowledge from students is not a requirement nor an indicator for their level of success. It is assumed that students have an interest in logic, problem solving and coding.

## Why study Software Design and Development?

Software Design and Development provides students authentic opportunities to design and develop software solutions. The subject provides students with a systematic approach to problem solving, an opportunity to be creative, excellent career prospects and interesting content. The subject is not only for those who seek further study or careers in this field, but also for those who wish to understand the underlying principles of software design and development. Students with software development skills wishing to acquire team and communication skills will find this subject relevant.

The computing field, particularly in the area of software design and development, offers opportunities for creativity and problem solving and a collaborative work environment where working with people and exploring issues is an integral part of the job. It is critical that students of both genders have the knowledge, understanding and skills necessary to pursue the many new, exciting and highly paid employment opportunities that exist in the field. The study of Software Design and Development promotes intellectual, social and ethical growth. It provides the flexibility to be able to adapt in a field that is constantly changing, yet vital to the Australian economy. This course opens the door to a wealth of opportunities in new areas of entrepreneurship and start-ups as well as traditional industries. On completion, the subject provides students with options in the workforce and university study.

## Course description:

The Preliminary course introduces students to the basic concepts of software design and development. It does this by looking at the different ways in which software can be developed, the tools that can be used to assist in this process and by considering the interaction between software and the other components of the computer system. The HSC course builds on the Preliminary course and involves the development and documentation of software using a variety of data structures and language facilities. Students learn to solve a number of interesting and relevant software problems.

## Main topics covered:

**Preliminary Course**

- Concepts and Issues in the Design and Development of Software (30%)
    - Social and ethical issues
    - Hardware and software
    - Software development approaches

- Introduction to Software Development (50%)
    - Defining and understanding the problem
    - Planning and designing software solutions
    - Implementing software solutions
    - Testing and evaluating software solutions

    - Maintaining software solutions

- Developing software solutions (20%)

**HSC Course**

- Development and Impact of Software Solutions (15%)
    - Social and ethical issues
    - Application of software development approaches

- Software Development Cycle (40%)
    - Defining and understanding the problem
    - Planning and design of software solutions
    - Implementing software solutions
    - Testing and evaluating software solutions
    - Maintaining software solutions

- Developing a Solution Package (25%)

- Options (20%) Study one of the following options:
    - Programming paradigms, or
    - The interrelationship between software and hardware

- It is a mandatory requirement that students spend a minimum of 20 per cent of Preliminary course time and 25 per cent of HSC course time on practical activities using the computer.

## Project work:

Students will be assigned project work in both the Preliminary and HSC courses as part of their internal assessment. As part of the HSC course they will complete a major project in which they may choose any area of interest. Students have an opportunity to design and produce a software solution that satisfies a genuine need. Students are strongly encouraged to seek professionals currently in the workforce who need software solutions. If successful, these solutions have the potential to be possible business beginnings.

## HSC examination structure:

**Written paper** – 100 marks, three hours, divided into three sections:

| | | |
|---|---|---|
| • Section I | Multiple-choice questions | 20 marks |
| • Section II | Short-answer questions | 60 marks |
| • Section III | Option topic | 20 marks |

## How is Software Design and Development relevant to tertiary studies and career choice?

Software Design and Development provides students with an excellent platform for the world of work. The skills of translating a human need into a software solution are invaluable in the modern world, with many students able to commence paid work during their tertiary studies. These opportunities can be treated both as the building of a portfolio for future career options or simply as a lifestyle decision to support them during their next years of study.

The study of Software Design and Development can open many doors to a variety of careers in IT as nearly every area of IT involves an element of coding. It is also highly beneficial for those students who have an interest in pursuing a career as an entrepreneur or being involved in the world of start-ups. Each of the major universities have many degrees in which the knowledge and skills learned in Software Design and Development are highly relevant and beneficial, from computer-science based courses, through to mathematics, science and business.

# Textiles and Design

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Textiles and Design?

There are no prerequisites for Years 11 and 12 Textiles and Design. Students do not need to have studied Textiles Technology in Years 9 and 10 to be successful in the HSC course. The course incorporates components of both practical and theoretical work.

## Why study Textiles and Design?

This subject provides an excellent background for tertiary design courses. It provides opportunities for students to develop and express creativity and to develop project management skills.

This subject complements studies in other courses such as Art, History, Science and Business Studies. This subject may also be studied as an area of interest now and throughout the student's future.

## Course description:

The Preliminary course involves the study of design, oral and visual communication methods, construction techniques, fibres, yarns, fabrics and the Australian textile industry. Practical experiences are integrated throughout the content areas and include experimental work as well as the production of two textile projects.

The HSC course builds upon the Preliminary course and includes the study of the influence of history and culture on design, contemporary designers and fashion trends, emerging technologies, innovation, sustainable technologies, consumer issues and the marketplace. This course culminates in the development of a Major Textile Project, including supporting documentation, which is specific to a selected focus area and assessed externally by NESA. Focus areas include apparel, furnishings, costume, textile arts and non-apparel.

## Main topics covered:

**Preliminary Course**

- Design:
  - Elements and principles of design
  - Functional and aesthetic design
  - Communication techniques
  - Manufacturing techniques

- Properties and Performance of Textiles:
  - The structure, characteristics and properties of fibres, yarns and fabrics

- Australian Textile, Clothing Footwear and Allied Industries:
  - Overview of the industry
  - Quality of textiles
  - Value of textiles

- Preliminary Textiles Projects:
  - Project 1 is selected from either apparel or costume
  - Project 2 is selected from furnishing, textile arts or non-apparel

**HSC Course**

- Design:
  - Fabric colouration and decoration
  - Historical design development
  - Cultural factors that influence design and designers
  - Contemporary designers

- Properties and Performance of Textiles:
  - Influence of fibre, yarn and fabric properties on end-use applications
  - Innovations and emerging textile technologies

- Australian Textile, Clothing, Footwear and Allied Industries:
  - Appropriate textile technology and environmental sustainability
  - Current issues
  - Marketplace

- Major Textile Project and Support Documentation - Students may choose from one of the following focus areas on which to base their project:
  - Apparel
  - Furnishing
  - Costume
  - Textile arts
  - Non-apparel

## Particular course requirements:

In the Preliminary course, practical experiences are integrated into the design and properties and performance of textiles areas of study. Students complete two projects with accompanying support documentation. In the HSC course, the Major Textile Project allows students to manufacture a textile project that reflects their chosen inspiration.

There will be a small charge at the end of each semester to cover supplementary fabrics and notions.

## HSC examination structure:

Written paper – 50 marks, 1½ hours, divided into three sections:

| | | |
|---|---|---|
| • Section I | Objective-response questions | 10 marks |
| • Section II | Short-answer questions | 24 marks |
| • Section III | Structured extended-response question | 16 marks |

Major Textile Project – 50 marks – Made up of two components:

| | |
|---|---|
| 1. Supporting documentation | 25 marks |
| 2. Textile item | 25 marks |

## How is Textiles and Design relevant to tertiary studies and career choice?

Further study options include fashion and interior design courses at a number of institutions, textile science, fibre development, fabric design and theatre design. Possible career paths include pattern making, sample machinist, fashion design, interior design, fibre technologist and costume design.

# Visual Arts

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Between Content Endorsed Courses and the NESA Developed Visual Arts course:
Ceramics – Visual Arts HSC Ceramics Body of Work
Furnishing – The Furnishing Integrated project(s) cannot be used as a Body of Work
Photography – Visual Arts HSC Photography Body of Work
Visual Design – Products developed cannot be used as a Body of Work in Visual Arts

## What background knowledge do I need to study Visual Arts?

Nil.

## Why study Visual Arts?

Visual Arts, as a subject, fosters an interest and enjoyment in the making and studying of artworks. Engagement in the Visual Arts can be of great significance to a student's life as it enables her to gain an intellectual autonomy, as evident in the making of artworks, through the representation of ideas and creative choices related to the execution of an idea. The development of a critical and historical understanding of artworks as demonstrated in the writing and talking about art is also an equal component of the course.

The Visual Arts course offers a broad range of artmaking experiences in a wide range of media across a number of forms. Creative activities are the result of students' engagement with their own ideas, independent choices and an awareness of the work and influences of other artists. Media investigations are complemented by an historical and critical study of international and Australian artworks and cultures that support the students to understand the broader relationships of the artworld.

## Course description:

Visual Arts involves students in the practices of artmaking, art criticism and art history. Students develop their own artworks culminating in a Body of Work in the HSC course that reflects students' knowledge and understanding about artmaking practice and which demonstrates their ability to resolve a conceptually strong work. Students critically investigate artworks, critics, historians and artists from Australia as well as those from other cultures, traditions and times. The Preliminary course is broad, while the HSC course provides for deeper, increasingly more independent, investigations.

While the course builds on Visual Arts courses in Stages 4 and 5, it also caters for students with more limited experience in Visual Arts.

## Main topics covered:

**Preliminary Course** learning opportunities focus on:

- The nature of practice in artmaking, art criticism and art history through different investigations.
- The role and function of artists' artwork, the world and audiences in the art world.
- The frames and how students might develop their own informed points of view.
- How students may develop meaning and focus and interest in their work.
- Building understandings over time through various investigations and working in different forms.

**HSC Course** learning opportunities focus on:

- How students may develop their own informed points of view in increasingly more independent ways using the frames.
- How students may develop their own practice of art making, art criticism, and art history applied to selected areas of interest.
- How students may learn about the relationships between artist, artwork, world and audience within the art world.
- How students may further develop meaning and focus in their work.

## Particular course requirements:

**Preliminary Course**

- artworks in at least two forms and use of a visual arts diary
- a broad investigation of ideas in art criticism and art history
- students need to complete a range of artworks, the development and use of a visual-arts diary and written responses to artworks studied

**HSC Course**

- development of a body of work and use of a visual-arts diary
- a minimum of five case studies (4-8 hours each)
- deeper and more complex investigations of ideas in art criticism and art history

## HSC examination structure:

- a written examination of one and a half hours
- formal submission of a body of work
- an equal emphasis on both the studying and making of art

## How is Visual Arts relevant to tertiary studies and career choice?

We now live in a world that is saturated with visual imagery both in our everyday and working lives. Having an understanding and appreciation of this imagery enhances our ability to understand and add to the richness and diversity of visual language and the world around us.

Visual Arts offers students an informed and confident appreciation of their own culture and of other cultures across an historical and contemporary framework. The knowledge, understanding, skills and values gained from the Visual Arts course assist students in acquiring and building conceptual and practical skills which can be applied in a wide range of post-secondary school opportunities, related careers and life in general. Students gain critical skills, analysis, reflection, judgement and an appreciation of artworks, architecture and culture that may be implemented in a formal or informal context throughout their life.

Whilst some students may envisage a formal career in the arts, the exploration of creativity, both personal and through the appreciation of others, is an informed platform from which to pursue life. However, growth in careers within the fine arts, design and creative industries is a dynamic and growing area. Traditional areas still include artist, architect, industrial designer, interior designer, graphic designer, fashion designer, but have grown to include gaming design, object design, screen production, online-content development and advertising where traditional platforms have been expanded to include social media sites and diverse audiences.

# Business Studies

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Business Studies?

There is no requirement to study Commerce in Years 9 to10. There is also no mathematical requirement for Business Studies. If you continue with Business Studies at university, however, it is assumed the student has an interest in business.

## Why study Business Studies?

Business activity is a feature of everyone's life. As consumers and producers, employees, employers or self-employed, savers and investors, and as importers and exporters, people throughout the world engage in a web of business activities to design, produce, market, deliver and support a range of goods and services.

Business Studies focuses on areas and perspectives ranging from the planning of a small business to the broader roles of management, operations, finance, human resources and marketing.

Business case studies and contemporary business issues are embedded in the course to provide a stimulating and relevant framework for students to apply theoretical concepts encountered in the business environment.

Students completing this course will develop general and specific skills including research, analysis, problem solving, decision making, critical thinking and communication.

## Course description:

Each topic in the syllabus addresses the nature and role of business, internal and external influences on business, the functions and processes of business activity and management strategies and their effectiveness. The Preliminary course examines the above with a focus on small-medium enterprises whereas, in the HSC course, the focus is on large businesses that operate on a global scale.

## Main topics covered:

**Preliminary Course**

- Nature of Business — 20% of course time
- Business Management — 40% of course time
- Business Planning — 40% of course time

**HSC Course**

- Operations — 25% of course time
- Marketing — 25% of course time
- Finance — 25% of course time
- Human Resources — 25% of course time

## Particular course requirements:

In the Preliminary course there is a research project, involving the preparation of a business plan.

## HSC examination structure:

Students sit for a three-hour written examination. The paper is divided into the following sections:

| | | |
|---|---|---|
| • Section I | Multiple-choice questions | 20% |
| • Section II | Short-response questions | 40% |
| • Section III | Business report | 20% |
| • Section IV | Extended Response | 20% |

## How is Business Studies relevant to tertiary studies and career choice?

The major universities teach aspects of Business Studies in their business and commerce degrees. Students can enter the business world and pursue careers in accounting, banking and finance, business law, taxation, industrial relations, international business, marketing, tourism, hospitality management and human resource management.

# Economics

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Economics?

There is no requirement to have studied Commerce in Years 9 to10. It is assumed that students have an interest in current affairs and the ability to think in an abstract manner.

## Why study Economics?

Economic issues and decision making are part of the lives of every individual in modern society. This course focuses on how to understand and participate effectively in the economy. As technological change has increased the complexity of our global and domestic interactions, it has become necessary to understand the principles of economics. Issues related to global interactions of government, business and individuals, dominate the media and affect our ability to earn an income and distribute it. An understanding of economic relationships enhances our decision-making and success, as informed and innovative citizens.

Students learn to:

- comprehend the background and implications of contemporary economic issues
- evaluate appropriate policies to resolve economic problems and issues
- understand the impact of changes in interest rates and the Australian dollar on individuals, businesses and the economy
- identify fluctuations in the global and Australian economies and their likely effects on standard of living and quality of life
- understand reasons for changes in employment patterns
- identify, using economic thinking, appropriate strategies to promote environmental sustainability

## Course description:

The Preliminary course focuses on what is known as microeconomics. It examines the structure of the Australian economy through the behaviour of consumers, business and governments. Much of this behaviour is influenced by the operation of markets. Two key markets, the labour market and the financial market, are examined in detail. The Preliminary course provides an essential foundation for the HSC course.

The HSC course focuses on the operation and management of the Australian economy as a whole. This dimension of Economics is known as macroeconomics. It examines the external framework in which the Australian economy operates. The course investigates the impact of the global economy on the Australian economy and the link between economic issues and the management of the Australian economy.

## Main topics covered:

**Preliminary Course**

- Introduction to Economics — 10% of course time
- Consumers and Business — 10% of course time
- Markets — 20% of course time
- Labour Markets — 20% of course time
- Financial Markets — 20% of course time
- Government in the Economy — 20% of course time

**HSC Course**

- The Global Economy — 25% of course time
- Australia's Place in the Global Economy — 25% of course time
- Economic Issues — 25% of course time
- Economic Policies and Management — 25% of course time

## Particular course requirements:

Mathematics is not required at the school level. The course contains some degree of mathematical analysis, however the focus of Economics at the school level is not primarily mathematical.

If you are considering a career as an economist or in commerce, some universities (The University of Sydney) will now require 2 Unit Mathematics as a prerequisite into the economics and commerce faculties.

## HSC examination structure:

There is one three-hour paper divided into four sections that allow for a balanced coverage of all topics in the HSC Course.

- Section I
  - 20 multiple-choice questions — 20%
- Section II
  - Four short-answer questions — 40%
- Section III
  - One extended response from two stimulus-based question options — 20%
- Section IV
  - One extended response from two question options — 20%

## How is Economics relevant to tertiary studies and career choice?

A multitude of employment opportunities have been opened through the study of economics. The major universities teach aspects of economics in their commerce/business/finance/global and international studies, and economics degrees. Students can enter the business world and pursue careers in accounting, banking and finance, risk management, economic forecasting, economic policy development, insurance, business law, taxation, resource management, marketing, international studies, tourism and hospitality management, and financial journalism.

Apart from specific career options, a foundation knowledge in Economics will be of significant advantage to you throughout your life. An understanding of the consequences of our decisions, the finite nature of all resources, and an appreciation of how our economic system operates, will aid every student in meeting and mastering life's challenges.

# GEOGRAPHY

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Geography?

There are no prerequisites for the course and students who did not take Year 10 Elective Geography are able to recommence their studies in Geography.

## Why study Geography?

Geography is an investigation of people and places. The study of Geography is centred around the interaction of people in communities, and people with their environment. It is a key discipline through which students develop the ability to recognise and understand environmental change and the interactions which take place in our world.

The study of Geography prepares students for adult life by developing an informed understanding of local and global issues which underpin their present and future lives. It allows students to perceive the world in a variety of ways and helps them to make sense of a complex and ever-changing world. Geography has the ability to make a lifelong contribution to a student's understanding of the earth and the global environment and allows them to become active and informed global citizens.

## What issues and concepts are covered in Geography?

These may include poverty, shanty towns, coastal management, energy crisis, global climate change, species extinction, globalisation, Australia's ageing population, spread of mass culture, water crisis and political conflicts.

## Course description:

The Preliminary course draws on the contemporary developments in biophysical and human geography. The course focuses upon:

- management of the natural world inlcuding coastal impacts
- explore global challenges including ageing populations, globalisation of cultures, development Inequalities.

Students experience enquiry methodologies to investigate our world through:

- fieldwork to explore geographical issues
- geographical skills e.g. mapping, statistical analysis and photographic interpretation.
- the study of contemporary geographical issues
- research project designed to give students the opportunity to investigate an area of geographic interest to them. (Year 11 only.)

The HSC course continues the contemporary nature of the discipline and investigates issues including ecosystems at risk, changes in employment and production, and the character of the urban environments around the world. Fieldwork remains a vital component of the student's enquiry methodology.

## Main topics covered:

**Preliminary Course**

- Biophysical Interactions — 45% of course time
- Global Challenges — 45% of course time
- The Senior Geography Project (SGP) — 10% of course time

**HSC Course**

- Ecosystems at Risk 33% of course time
- Urban Places 33% of course time
- People and Economic Activity 33% of course time

**Key concepts incorporated across all topics:** change, environment, sustainability, spatial and ecological dimensions, interaction, technology, spatial justice, management and cultural integration.

## Particular course requirements:

Students must complete a Senior Geography Project (SGP) in the Preliminary course and must undertake ten hours of fieldwork in both the Preliminary and HSC courses.

## HSC examination structure:

One three-hour examination. The written paper is divided into the following sections:

| | | |
|---|---|---|
| Section I | Objective-response questions – including skills and definitions | 20% |
| Section II | Short-answer skills and course-content interpretation responses | 40% |
| Section III | Two essays from a choice of three (one from each topic) | 40% |

## How is Geography relevant to career choice?

- The research and investigation skills developed throughout the course, and in particular the SGP, provide excellent training and experience for future tertiary studies.
- The study of Geography assists students to prepare for employment in a wide range of areas e.g. urban planning, environmental science and management, statistical research such as demography, tourism management, hydrology and meteorology, teaching and many others.
- Geography provides a sound foundation for students to become full and active citizens of the world in relation to matters such as environmental issues and global inequality.

## Geography in the workplace:

**Commerce**
Advertising
Business Administration
Market Research
Public Relations
Retailing
Transport
Manufacturing
Office Managment
Real Estate
Mining
Land Development
Industrial Planning
Property Management
Resources Management
Energy Planning

**Humanities**
Law
Administration
Government Service
Teaching
Politics
Diplomacy
Journalism
Tourism
Recreation
Travel / Hospitality
Population Planning
Social Work
Social Planning
Emergency Services

**Environment**
Park Ranger
Government Science
Conservationist
Agriculture
Recreation Management
Wildlife Management
Environment Monitoring
Environment Assessment
Hazard Assessment
Land Degradation
Waste Disposal Management
Resource Management
Energy Planning

**Planning / Design**
Urban Planner
Social Planner
Architecture
Landscape Architecture
Land Development
Cartography
Surveying
Transport Planning
Electoral Planning
Land Use Planning

**Maths / Computing**
Surveying
Land Information Systems
Remote Sensing
Digital Mapping
Satellite Imagery
Cartography

**Science / Engineering**
Remote Sensing
Surveying
Meteorology
Engineering
Agricultural Science
Forest Science
Geology
Hydrologist
Park Ranger

# Ancient History

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Ancient History?

There are no prerequisites for the course but it is assumed that students have an interest in Ancient History.

## Why study Ancient History?

- to develop a lifelong interest in the study of history
- to understand and make sense of the world around you
- because it is rich, engaging and entertaining history
- use skills of analysis, research and debate for the rest of your life
- learn to analyse ancient sources and make sense of them
- improve literacy and read literature that will help make you an informed, global citizen.

## Course description:

The Ancient History course is structured to provide students with opportunities to develop and apply their understanding of methods and issues involved in the investigation of the ancient past. Through the use of archaeological and written sources, students investigate various aspects of the ancient world, including historical sites, people, societies, events and developments.

Over the Preliminary and HSC courses, students will study the ancient world in Egypt, Greece, Rome, Celtic Europe and the Near East. There are also opportunities for students to develop their own areas of interest.

## Main topics covered:

**Preliminary Course**

1. Investigating Ancient History
   - The Nature of Ancient History - units of work, case studies and integrated studies will come from the following six options (this will be subject to change each year depending on teaching preferences and assessment task descriptors):
     - The Investigation of Ancient Sites and Sources – e.g. Macedonian tombs at Vergina, Deir-el-Medina, Tutankhamun's tomb.
     - Historical Authentication and Reliability – e.g. Homer's *Iliad*.
     - The Representation of the Ancient Past – e.g. Film study: *Troy, Gladiator, Cleopatra, Spartacus.*
     - Preservation, Conservation and Reconstruction of Ancient Sites – e.g. sites under risk due to war (such as ISIS in Iraq and Syria), destruction, pollution, poverty.
     - Cultural Heritage and The Role of Museums - e.g. debate over the Parthenon Marbles.
     - The Treatment and Display of Human Remains – e.g. European bog bodies, Otzi the Iceman, Pazyryk Ice Maiden.
   - Case Studies – Rome and Her Enemies: Opposition to Roman Rule
     - Queen Boudicca and her revolt against Rome
     - Roman control of Judea and the occupation and siege of Masada

2. Historical Investigation
   The historical investigation in Year 11 is designed to provide opportunities for all students to further develop their investigative, research and presentation skills. Students plan, develop and conduct an historical inquiry. As an individual project, the historical investigation challenges Year 11 students to work independently and within a timeframe. It is a precursor to the History Extension course.

3. Features of Ancient Societies
   Studies within this section of the syllabus are concerned with seeking explanations to the 'how' and 'why' questions of history: how people lived in the past, why they may have lived that way,

and how and why their life circumstances had changed in ancient societies such as: Greece, Rome, Persia and Egypt.

Key features may include:

- Women
- Slavery
- Art and Architecture
- Weapons and Warfare
- Death and Funerary Customs
- Power and Image

**Assessment Information** - There is no external examination in Year 11. Students will be assessed through three formal assessment tasks, one of which is the Preliminary examination.

**HSC Course**

- Part I – Cities of Vesuvius
  - The mandatory study of Pompeii and Herculaneum constitutes the core study in Ancient History and investigates one of the world's most exciting archaeological sites.

- Part II – Personalities and their Times
  - Here students are encouraged to analyse and evaluate sources and explain different perspectives and interpretations of the past. Units of study could include: Julius Caesar, Agrippina the Younger, Alexander the Great, or Xerxes.
- Part III – Ancient Societies
  - Through the study of one ancient society, students gain an in-depth understanding of the key features of the ancient world. Units of study could include: Ancient Sparta, New Kingdom Egypt, Persian Society at The Time of Darius and Xerxes, or Athenian Society in The Time of Pericles.
- Part IV – Historical Periods
  - During the investigation of their historical period, students are asked to explain significant elements, forces and institutions that have contributed to change in the ancient world and to examine historical debates. Units of study could include: Augustan Rome, The Greek World from 500 to 440BC, or The Fall of The Roman Republic.

## HSC examination structure:

It will be a three-hour examination plus five-minutes reading time. The examination will consist of four sections.

Section I – Core: Cities of Vesuvius Pompeii and Herculaneum (25%)

There will be three or four questions. This section will require candidates to analyse and interpret sources and apply their own knowledge. One question will be worth 10 to 15 marks.

Section II – Ancient Societies (25%)

There will be one question for the topic studied. Questions will contain three or four parts. One part will be worth 10 to 15 marks.

Section III – Personalities in their Times (25%)

There will be one question for the topic studied. Questions will contain two or three parts. One part will be worth 10 to 15 marks.

Section IV – Historical Periods (25%)

There will be one extended-response question for the topic studied. Each question will have two alternatives. Candidates will be required to answer one option on the topic they have studied.

## How is Ancient History relevant to tertiary studies and career choice?

The study of Ancient History provides students with knowledge, understanding and skills that form a valuable foundation for a range of courses at university and other tertiary institutions: independent research, group work, and the use of information technology to critically analyse and communicate a broad and sophisticated range of issues.

In addition, the study of Ancient History assists students to prepare for employment, and full and active participation as citizens.

# Modern History

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Modern History?

Stage 5 Mandatory Australian History and an interest in the Modern World.

## Why study Modern History?

A study of Modern History plays an important part in our development as informed and thinking adults. It leads to a greater understanding of the world both past and present and promotes the ability to view issues from different perspectives. Valuable vocational and life skills are learned through the study of History: skills of research, communication, analysis and the use of evidence to support ideas. Perhaps the best reason for studying Modern History is that learning about people is the most fascinating pastime there is.

## Course description:

The Preliminary course is designed to provide students with opportunities to investigate individuals, groups, events, institutions, societies and ideas in a range of historical contexts as background to their HSC studies.
The HSC course is designed for students to investigate national and international forces for change and continuity in the 20th century through the examination of four major areas of study.

## Main topics covered:

**Preliminary Course**

- Part I – Investigating Modern History. This topic has two components:
    - The Nature of Modern History
      Students examine historiographical issues such as contestability of the past, the construction of modern histories and History and memory. This topic may be integrated into other topics in the course.
    - Case Studies
      Students undertake two case studies. For example: The Decline and Fall of the Romanov Dynasty, The Boxer Rebellion, The US Civil War, Decolonisation in Indochina, the Cuban Revolution.
- Part II – Historical Investigation
    - Students undertake an historical investigation unit based on an ideology or event of significance that has helped to shape the Modern World. For example: The Development of Nationalism, Socialism, Marxism, Democracy or Imperialism, The Industrial Revolution and Social Change, The Impact of Colonisation on Africa, Asia or The Pacific.
- Part III – The Shaping of the Modern World
    - World War 1 – the historical context, the nature of World War 1 and the nature and legacy of World War 1 and its influence on modernity.

**Assessment information:** There is no external examination in Year 11. Students will be assessed through three formal assessment tasks, one of which is the Preliminary Examination.

**HSC Course**

- Part I – Core Study – Power and Authority in the Modern World 1919–1946
    - This is a new topic which focuses on the rise of fascist, totalitarian and militarist movements after World War 1; what drew people to these movements; the regimes that emerged and ongoing international movements to achieve collective security. Students will focus on Germany between the wars and the rise of the Nazi state. The topic also includes an overview of the search for peace and security 1919-1946.
- Part II – National Study
    - Students undertake one of the following 20th century studies: either Russia and the Soviet Union, or China, or the USA, focusing predominately on the inter-war period.
- Part III – Peace and Conflict
    - Students undertake one of the following studies: either Conflict in Indo-china (Vietnam and Cambodia), or the Arab- Israeli Conflict.
- Part IV – Change in the Modern World
    - Units include: either Civil Rights in the USA 1945-1968, or Apartheid in South Africa 1960-1994.

## HSC examination structure:

It will be a three-hour examination plus five-minutes reading time. The examination will consist of four sections:

- Section I – Power and Authority in the Modern World 1919–1946 (25 marks)
    - There will be three or four questions. This section will require candidates to analyse and interpret sources and apply their own knowledge. One question will be worth 10 to 15 marks. Candidates will be required to answer all questions.
- Section II – National Studies (25 marks)
    - There will be one extended-response question for each of the eight topics. Each question will have two alternatives. Candidates will be required to answer one alternative on the topic they have studied. The expected length of response will be around eight pages of an examination writing booklet (approximately 1,000 words).
- Section III – Peace and Conflict (25 marks)
    - There will be one extended-response question for each of the six topics. Each question will have two alternatives. Candidates will be required to answer one alternative on the topic they have studied. The expected length of response will be around eight pages of an examination writing booklet (approximately 1,000 words).
- Section IV – Change in the Modern World (25 marks)
    - There will be one question for each of the six topics. Questions will contain three or four parts. One part will be worth 10 to 15 marks. Candidates will be required to answer the question on the topic they have studied.

## How is Modern History relevant to tertiary studies and career choice?

The study of Modern History forms a valuable foundation for a range of courses studied at university or tertiary level. Skills of research, analysis, communication and the use of evidence to support ideas are all important skills that form the basis of many future careers and are particularly relevant for those wishing to pursue a career in the areas of law or communications. In addition, a study of Modern History provides a series of life and recreation skills which promote a greater understanding and enjoyment of the world around you.

# History Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
**Prerequisites:** A Preliminary and HSC course in Modern History or Ancient History.

## What background knowledge do I need to study History Extension?

Students must be studying either Modern History or Ancient History. There are no other prerequisites but is is assumed that students:

- have a love of, and interest in, history
- have competent essay writing skills

## Why study History Extension?

History Extension has been designed for those who enjoy studying History. As the individual project represents a large part of the assessment in this course, it is an ideal course for students who want to research a favourite historical area. The course takes an historiographical approach and aims to develop historical thinking and writing. Therefore, it can strengthen these skills and so enhance the results of students in the 2 Unit courses. It is essential that Extension students are self-motivated workers.

## Course description:

HSC History Extension is offered in Year 12 for students of either Modern or Ancient History. This course is designed to enhance the development of critical and reflective thinking skills essential for effective participation in work, higher learning and the broader community.

## Main topics covered:

- Part I – Constructing History
    - Within this topic, students look at the key questions which provide a framework for the investigation the construction of history with a focus on historiography. Students then develop their understanding of significant historiographical ideas and methodologies by exploring one case study.
- Part II – Constructing History - Case Studies
    - Students then develop their understanding of significant historiographical ideas and methodologies by exploring one case study. Topics that may be studied include: Winston Churchill, John Fitzgerald Kennedy, Cleopatra VII
- Part III – History Project
    - Students will choose and design a research topic. This topic may be chosen from any period of history according to individual interest.

## Will I produce a major work for the history project?

Yes. A research essay of 2,500 words forms 40 per cent of the internal assessment program. This work may be chosen from any topic area and must be historiographical in approach. Students' works will be supervised by a teacher but will be independently researched and written. Students may need access to academic libraries and will need to allocate some time outside school hours for their research to complete a work of the required standard. The major work is assessed internally. It is not tested in the HSC examination.

## HSC examination structure:

The examination will consist of a written paper worth 50 marks. The time allowed is two hours plus ten-minutes reading time. The paper will consist of two sections:

- Section I (25 marks)
    - There will be one extended-response question. The question may include reference to one or two unseen passages as a stimulus for exploration of issues of historiography. The expected length of response will be around eight examination writing pages (approximately 1,000 words).
- Section II (25 marks)
    - There will be one extended-response question. The question will ask candidates to analyse an historiographical issue with specific reference to the case study. The expected length of response will be around eight examination writing pages (approximately 1,000 words).

## How is Extension History relevant to tertiary studies and career choice?

This course provides excellent training in research methods for History and other disciplines. It develops students' skills in library and internet research methods as well as developing skills in critically editing what they have written. Students become familiar with university libraries and campuses. They also learn to work collaboratively to help other researchers and develop independent work and thinking skills. Most importantly, they discover the challenges of meeting deadlines with large projects. This course is ideally suited to bridging the gap between school and tertiary studies or the workplace.

# Legal Studies

2 units for each of Preliminary and HSC
NESA Developed Course

## Why study Legal Studies?

Students study Legal Studies because it helps them to think critically on the role of law and legal institutions in society. This is achieved through a review of selected legal rules, institutions and processes at the domestic and international level, a demystification of terminology and a focus on change, effectiveness, dispute resolution and justice.

The syllabus is much more than teaching students about the law and legal processes. Students are expected to be able to question, investigate and support a point of view based on evidence. They collect this evidence from an analysis of a wide range of texts, documents, cases, legislation and also a wide variety of media sources.

Legal Studies develops students' knowledge, understanding and skills in relation to the legal system and its effectiveness in promoting a just and fair society, with a view to empowering students to participate effectively as citizens at the local, national and international level.

## What issues and concepts are covered in Legal Studies?

These may include the legal system and sources of law, the powers of the state, the rights of groups such as the disabled, women, migrants; criminal law, human rights and family law.

## Course description:

Legal Studies provide students with knowledge and understanding about:

- the general nature, functions, systems, processes and institutions of domestic and international law
- the operation and dimensions of the Australian and international legal systems and the importance of the rule of law
- how changes in societies influence change and reform in the law
- access to, and participation in, the legal system and methods of dispute resolution.

And develops skills in:

- investigating, analysing and synthesising legal information and issues from a variety of perspectives
- communicating legal information and issues using appropriate forms;

As well as developing an interest in, and informed and responsible values and attitudes about, legal functions, practices and institutions.

## Main topics covered:

**Preliminary Course**

- Part I – The Legal System 40%
  Basic legal concepts and sources of law: Aboriginal and Torres Strait Islander customary law, contemporary Australian law, international law, the constitutional system in Australia, the operation of the legal system, law reform.
- Part II – The Individual and The Law 30%
- Part III – The law in Practice 30%

**HSC Course**

- Part I – Crime 30%
- Part II – Human Rights 20%
- Part III – Two additional focus studies: Family Law and World Order 50%

## Key concepts incorporated across all areas:

Justice; law and society; continuity and change; culture; values and ethics; legal processes and institutions; conflict and co-operation; effectiveness of the legal system.

## How is Legal Studies relevant to career choice?

Whilst not a prerequisite to the tertiary study of law, Legal Studies gives the student knowledge, understanding and skills that form a valuable foundation for a range of courses at university and other tertiary institutions. Legal Studies has a significant impact on students understanding the legal system and provides them with a better appreciation of the relationship between social and legal structures in society.

The subject offers excellent preparation for life skills through an understanding of the legal system, its principles, structures, institutions and processes. In addition, the study of Legal Studies Stage 6 assists students to prepare for employment and full and active participation as citizens. In particular, there are opportunities for students to gain recognition in vocational education and training. Teachers and students should be aware of these opportunities.

# Studies of Religion

1 unit for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Studies of Religion?

There are no prerequisites for Studies of Religion.

The Preliminary course provides all necessary background information regarding the nature of religion and its expression in various major world religions along with Aboriginal spirituality. The Preliminary course acts as an introduction to spirituality, religious language and the different aspects of the meaning of life and death and concepts of divinity.

Nevertheless, the Religion and Ethics program in Years 7 to 10 at *Pymble*, provides girls with a deeper understanding of religious traditions, along with an introduction to philosophical and ethical concepts. This enhances their appreciation of the material studied in Studies of Religion and allows further study to be supported by background skills and knowledge.

## Why study Studies of Religion?

Studies of Religion encourages students to develop their knowledge, skills and understanding of religion by exploring its significance throughout history and within contemporary society: the impact of beliefs, teachings, sources and practices on individuals and communities. Students will develop and express personal responses and informed insights on fundamental questions about identity, belonging, meaning and purpose.

The subject combines well with other humanities subjects and, if taken with the sciences, will give students a broad-based curriculum. Students who have studied Studies of Religion in the past have gone on to read a wide range of subjects at university – everything from physics to philosophy, mathematics to medicine, economics to English, as well as theology.

## Course description:

The Preliminary course provides an understanding of the nature of religion and the expression of religious thought and practice in various belief systems. The variety of beliefs about the relationship between the divine and the human, the search for meaning and the ultimate goal of human life are explored. Students are introduced to Aboriginal spirituality and two of the world's major religions chosen from: Buddhism, Christianity, Hinduism, Islam and Judaism.

In the HSC course, the Foundation Study unit is a study of the history and societal changes in the expressions of religion in Australia from 1945 to the present. This study should demonstrate to students that people who share a religious view of reality have much in common and have an important place in Australian society and its environment. The relevance of religion to Australian culture is an integral part of this section of the course.

Following from the World Religion depth studies in Year 11, the same two traditions are studied in greater detail, specifically looking at significant people, ethical issues and significant practices within the chosen traditions.

## Main topics covered:

**Year 11 Studies of Religion: 1 Unit**

- Nature of Religion and Beliefs
- Religious Tradition 1 (Christianity)
- Religious Tradition 2 (one chosen from: Buddhism, Hinduism, Islam or Judaism)

**Year 12 Studies of Religion: 1 Unit**

- Religion in Australia post 1945
- Religious Tradition Depth Study 1 (Christianity)
- Religious Tradition Depth Study 2 (one chosen from: Buddhism, Hinduism, Islam or Judaism)

## HSC examination structure:

**Year 12 Studies of Religion: 1 Unit**

- Ten Multiple-choice Questions (10 marks) 20%
- Short-answer Questions (5 marks) 10%
- Religious Tradition Depth Study 1 – Extended-Response Question (15 marks) 30%
- Religious Tradition Depth Study 2 – Extended-Response Question (20 marks) 40%

## How is Studies of Religion relevant to tertiary studies and career choice?

The Studies of Religion course teaches students a range of skills necessary to any area of further study, such as independent research, collecting, analysing and organising information and communicating ideas and information. Students work as individuals and as members of groups to conduct historical investigations, planning and organising activities.

Throughout the course, students are evaluating information for its usefulness, validity and bias, presenting findings, developing strategies to manage complex tasks and learning to make effective use of time and resources. These skills empower students to become critically reflective, life-long learners.

Studies of Religion provides learning experiences that prepare students for further education and training, employment and full and active participation as citizens within society.

# Dance

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Dance?

Students need no background knowledge, only an interest in performing arts.

## Why study Dance?

Students learn about dance as an artform through performing dance, composing dance and appreciating dance. Students are able to study dance as a unique artform in which the body is the instrument for non-verbal communication and expression.

Dance is an exciting medium for learning that fosters students' intellectual, social and moral development.

The artform of dance has a theoretical base that challenges the mind and the emotions, and its study contributes to the students' artistic, aesthetic and cultural education.

## Course description:

Students study three inter-related components: Performance, Composition and Appreciation of Dance. Students engage with these components through experience and theoretical and practical knowledge.

## Main topics covered:

**Preliminary Course**

- Core Performance
- Core Composition
- Core Appreciation

In the Preliminary course, students study dance as an artform with core studies in the inter-related components of Performance, Composition and Appreciation. The knowledge that students gain in Year 11 provides the fundamentals of dance as an artform and is implicit in the content for Year 12.

**HSC Course**

- Core Performance 20%
- Core Composition 20%
- Core Appreciation 20%
- Major Study – **one** to be completed 40%
    - Performance
    - Composition
    - Appreciation
    - Dance and Technology

In the HSC course, students continue their study of dance as an artform. They continue core study in the three core components. Students also undertake an in-depth study of dance in one of the major study components, Performance, Composition, Appreciation or Dance and Technology.

## Particular course requirements:

The Preliminary course offers students a broad foundation study of dance as an artform. While students should not be excluded from studying the syllabus on the basis of general physical attributes, they should be made aware of the rigorous demands of the course. The HSC course builds on the Preliminary course and provides students with a deeper understanding of dance as an artform through specialised study. There are prescribed topics (seminal artists and works) required for study in the core, and major-study Appreciation components of the Dance Stage 6 HSC course.

## HSC examination structure:

- Written examination paper
- Solo performance(s)
- Presentation of a composed/choreographed dance/work

## How is Dance relevant to tertiary studies and career choice?

Dance provides students with knowledge, understanding and skills that form a valuable foundation for a range of courses at university and other tertiary institutions. In addition, the study of Dance gives students skills for a career in and beyond the performing arts and there are opportunities for students to gain recognition in vocational education and training.

There are also any number of occupations in which dance is a valuable component:

- Event planning
- Arts and entertainment management
- Stage management
- Dance physiotherapist / dance specialist
- Dance teacher
- Choreographer
- Entertainment agent / casting agent
- Performing-arts psychologist
- Dance therapy
- Government arts boards

# Drama

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Drama?

Students need no background knowledge, only an interest in theatre arts.

## Why study Drama?

Drama develops the talents and capacities of all students, as well as self-confidence and self-esteem. Students can learn about themselves, extend themselves creatively, and develop skills in interpretation, communication, performance and critical analysis.

Students develop an understanding of the cultural traditions and social contexts of drama and theatre. Drama allows for the exploration of attitudes and values of many groups in Australian society and other societies and cultures.

## Course description:

Students study the practices of Making, Performing and Critically Studying in Drama. Students engage with these components through collaborative and individual experiences.

**Preliminary Course**

This comprises an interaction between the components of Improvisation, Playbuilding and Acting, Elements of Production in Performance, Theatrical Traditions and Performance Styles. Learning is experiential in these areas.

**HSC Course**

Australian Drama and Theatre, and Studies in Drama and Theatre involve the theoretical study through practical exploration of themes, issues, styles and movements of traditions of theatre exploring relevant acting techniques, performance styles and spaces.

The Group Performance of between three and six students involves creating a piece of original theatre (8 to 12 minutes duration). It provides an opportunity for each student to demonstrate her performance skills.

For **the Individual Project** students demonstrate their expertise in a particular area. They choose one project from Critical Analysis **or** Design **or** Performance **or** Script Writing **or** Video Drama.

## Main topics covered:

**Preliminary Course**

- Improvisation, Playbuilding, Acting
- Elements of Production in Performance
- Theatrical Traditions and Performance Styles

**HSC Course**

- Australian Drama and Theatre (Core content)
- Studies in Drama and Theatre
- Group Performance (Core content)
- Individual Project

## Particular course requirements:

The Preliminary course informs learning in the HSC course. In the study of theoretical components within the HSC course, students engage in practical workshop activities and performances to assist their understanding, analysis and synthesis of material covered in areas of study. In preparing for the Group Performance, a published topic list is used as a starting point. The Individual Project is negotiated between the student and the teacher at the beginning of the HSC course.

Students choosing Individual Project Design or Critical Analysis should base their work on one of the texts listed in the published text list. This list changes every two years. Students must ensure that they do not choose a text or topic they are studying in Drama in the written component or in any other HSC course when choosing Individual Projects.

## HSC examination structure:

- Individual Project Completion/Performance
- Group Performance Examination
- 1½-hour Theory Examination

## How is Drama relevant to tertiary studies and career choice?

Drama is about understanding your world and making observations on human experience through performance art. Drama provides students with knowledge, understanding and skills that form a valuable foundation for a range of courses at university and other tertiary institutions. A career in the performing arts, whilst enormously rewarding, is a real challenge. However, Drama develops interpersonal skills which will benefit students no matter what career they choose.

# Music 1

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Music 2

## What background knowledge do I need to study Music 1?

Music mandatory course (or equivalent).

## Why study Music 1?

The curriculum structure of Music 1 is adaptable enough to meet the needs and interests of students with varying degrees of prior formal and informal learning in music. It accommodates the widely differing needs and abilities of students, ranging from the broadly based, to the desire to specialise, by allowing flexibility in the topic choice and areas of study. Students may enter the course from the Mandatory course as well as from the Additional Study course.

Music aims to provide students with learning experiences that will enrich their physical, aesthetic, emotional, intellectual and social development.

## Music is important because:

- it is a way of finding personal, cultural or spiritual meaning, and through this, self-esteem
- students develop the ability to interpret and manipulate music from any style or culture
- music assists students to understand social and technological changes
- music can help foster an awareness of culture and various cultural changes
- the arts in general and music in particular, attract international prestige to Australia.

## Course description:

In the Preliminary and HSC courses, students will study: the concepts of music through learning experiences in performance, composition, musicology, and aural within the context of a range of styles, periods and genres.

## Main topics covered:

Students study three topics in each year of the course. Topics are chosen from a list of 21 which cover a range of styles, periods and genres e.g.:

- An instrument and its repertoire
- Australian music
- Baroque music
- Jazz
- Music and the related arts
- Music for large ensembles
- Music for radio, film, television and multimedia
- Music for small ensembles
- Music of a culture
- Music of the 18th century
- Music of the 19th century
- Music of the 20th and 21st centuries
- Popular music
- Rock music
- Technology and its influence on music
- Theatre music

## Particular course requirements:

**HSC Course**

In addition to core studies in performance, composition, musicology and aural, students select **three** electives from any combination of performance, composition and musicology. These electives must represent **each** of the three topics studied in the course.

Students who select Composition electives will be required to compile a portfolio of work as part of the process of preparing a submitted work. The portfolio may be requested by NESA to validate authorship of the submitted work.

## HSC examination structure:

The Music 1 examination will be marked out of 110 marks and the mark will be converted to a mark out of 100.

- Core 50 marks
    - Practical examination – Core performance (20 marks)
      Maximum performance time: 5 minutes,
      All candidates will perform one piece on an instrument of their choice (including voice). The piece may be a solo or an ensemble item.
    - Written examination - 45-60 minutes (30 marks)
      Composition Core Candidates will respond to a number of music extracts broadly reflecting the range of topics offered for study.
- Electives 60 marks
    - Performance Elective (20 marks)
    - Composition Elective (20 marks)
    - Musicology Elective (20 marks)

## How is Music 1 relevant to tertiary studies and career choice?

The most obvious careers in music are as performers, composers, conductors and teachers. There are also any number of occupations in which music is a valuable component:

- Broadcasting in radio and television
- Arts and entertainment management
- Stage management
- Audio technology
- Music journalist or critic
- Music therapist
- Music librarian
- Tuner/technician
- Musical scholar

# Music 2

2 units for each of Preliminary and HSC
NESA Developed Course
**Exclusions:** Music 1

## What background knowledge do I need to study Music 2?

Music Elective Study course (or equivalent).

## Why study Music 2?

The aim of Music 2 is to provide students with the opportunity to build on their musical knowledge and skills, and to emerge as musically sensitive and critical individuals with the capacity and desire for music to play a significant and continually developing role in their lives.

## Music is important because:

- it is a way of finding personal, cultural or spiritual meaning, and through this, self-esteem
- students develop the ability to interpret and manipulate music from any style or culture
- music assists students to understand social and technological changes
- music can help foster an awareness of culture and various cultural changes
- the arts in general and music in particular, attract international prestige to Australia.

## Course description:

In the Preliminary and HSC courses, students will study: the concepts of music through learning experiences in performance, composition, musicology and aural within the context of a range of styles, periods and genres.

Students study one Mandatory Topic covering a range of content and one Additional Topic in each year of the course. In the Preliminary course the Mandatory Topic is Music 1600 to 1900. Three periods of music, including at least one genre from each period to be studied (baroque, classical and 19th century music).

- Concerto grosso
- Solo concerto
- Song
- Symphony
- Vocal/choral music
- Orchestral music
- Solo repertoire
- Chamber music

Additional Topics include:

- Australian music
- Music of a culture
- Music 1900 to1945
- Music 1954 to music 25 years ago
- Medieval Music
- Renaissance Music

In the HSC Course the Mandatory Topic is Music of the Last 25 years (Australian focus).

Topics include:

- Art Music
- One other area within the topic from:
    - Popular music
    - Music in radio, film, television and multimedia
    - Jazz
    - Music for theatre

Additional Topics include:

- Music of a culture
- Medieval music
- Renaissance music
- Baroque music
- Classical music
- Nineteenth century music
- Music 1900 to1945
- Music 1945 to music 25 years ago

## Particular course requirements:

In addition to core studies in performance, composition, musicology and aural, students nominate one elective study in Performance, Composition or Musicology. Students selecting Composition or Musicology electives will be required to compile a portfolio of work as part of the process of preparing a submitted work. The portfolio may be requested by NESA to validate authorship of the submitted work and the portfolio makes up the entire internal assessment.

All students will be required to develop a composition portfolio for the core composition.

## HSC examination structure:

- Core 70 marks
    - Performance Core
    - Composition Core
    - Musicology Core
    - Aural Skills Core

- Elective (students choose one elective) 30 marks
    - Performance Elective
    - Composition Elective
    - Musicology Elective

## How is Music 2 relevant to tertiary studies and career choice?

The most obvious careers in music are as performers, composers, conductors and teachers. There are also any number of occupations in which music is a valuable component:

- Broadcasting in radio and television
- Arts and entertainment management
- Stage management
- Audio technology
- Music journalist or critic
- Music therapist
- Music librarian
- Tuner / technician
- Musical scholar

# Music Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
**Prerequisites:** Music 2 Preliminary

## What background knowledge do I need to study Music Extension?

Music 2 Preliminary and HSC course.

## Why study Music Extension?

The aim of the Music Extension course is to provide challenging and rigorous opportunities for musically and academically talented students to assist them in the realisation of their potential as performers, composers or musicologists.

## Course description:

In the HSC course students will specialise further in one of the learning experiences of Performance or Composition or Musicology.

## Main topics covered:

As an extension of studies in Music 2, students will develop and expand aural awareness and understanding through their specialisation in Performance or Composition or Musicology. Each student will follow an individual program of study which will be negotiated between the teacher and student.

## HSC examination structure:

- Performance Extension: Students will perform three contrasting pieces. One of the pieces must be an ensemble item.
- Composition Extension: Students will submit two original contrasting pieces. A composition portfolio will be developed as a record of the compositional process.
- Musicology Extension: Students will submit one essay of 3,000 words on an aspect or aspects of music that they have studied in depth. A Musicology portfolio will be developed as a record of the musicological process.

## How is Music Extension relevant to tertiary studies and career choice?

The most obvious careers in music are a performers, composers, conductors and teachers. There are also any number of occupations in which music is a valuable component:

- Broadcasting in radio and television
- Arts and entertainment management
- Stage management
- Audio technology
- Music journalist or critic
- Music therapist
- Music librarian
- Tuner / technician
- Musical scholar

# Personal Development, Health and Physical Education

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study PDHPE?

The syllabus has been designed for all students in Years 11 and 12 who have an interest in the areas of health and sports science. While there are no formal prerequisites for this course, it is assumed that students have undertaken a minimum 300-hours course based on the *PDHPE Years 7 to 10 Syllabus*. The Stage 6 PDHPE syllabus builds upon this experience by introducing students to more detailed study and higher-order skills.

## Why study PDHPE?

- for those with a general interest and/or passion for health and sport
- for those who are interested in studying related areas at university including health sciences (medicine, physiotherapy, occupational therapy, speech therapy and nursing), sports sciences (exercise and sport science, human movement, nutrition, and PDHPE teaching) and community health (health promotion).

## Course description:

This syllabus focuses on a social view of health where the principles of diversity, social justice and supportive environments are fundamental aspects of health. The examination of individual, family and community values and beliefs and the sociocultural and physical environments in which we live provides an explanation for health status and sustainable solutions for better health. This syllabus also includes a detailed study of movement and physical activity. The emphasis is on understanding how the body moves and the sociocultural influences that regulate movement. Scientific aspects to be studied include anatomy, physiology, biomechanics and skill acquisition. Students also think critically about aspects of history, economics, gender and media as they impact on patterns of participation in physical activity and the ways that movement is valued. These areas of study prepare students to be informed participants in movement culture; skilled, intelligent performers; and analysts of movement.

All aspects of PDHPE are of relevance to all young people and, as such, the syllabus prescribes a core study that represents the breadth of the learning area. It is acknowledged, however, that senior students will have particular areas of interest that they wish to pursue in greater depth. Consequently, the syllabus offers a significant options component designed to enable students to specialise in chosen areas. The syllabus provides a direct link with study and vocational pathways in the areas of recreational, paramedical, movement and health sciences. Related career opportunities are expanding and gaining recognition throughout the community as legitimate fields of endeavour.

## Particular course requirements:

2 Unit PDHPE is predominately a theoretical course. There is a small component of practical work that is generally undertaken in the form of practical application tasks and laboratory work.

## Main topics covered:

**Preliminary Course**

- Core Strands **60%**
  - Better Health for Individuals (30%)
  - The Body in Motion (30%)
- Options Select **two** of the following options: **40%**
  - First Aid (20%)
  - Composition and Performance (20%)
  - Fitness Choices (20%)
  - Outdoor Recreation (20%)

**HSC Course**

- Core Strands **60%**
  - Health Priorities in Australia (30%)
  - Factors Affecting Performance (30%)
- Options - Select **two** of the following options: **40%**
  - The Health of Young People (20%)
  - Sport and Physical Activity in Australian Society (20%)
  - Sports Medicine (20%)
  - Improving Performance (20%)
  - Equity and Health (20%)

## HSC examination structure:

Time allowed: Three hours.

**Section I – Core** **60 marks**

- Part A (20 marks)
  - 20 multiple-choice questions based on the two HSC core modules.
- Part B (40 marks)
  - there will be approximately six short-answer questions
  - questions may contain parts
  - there will be approximately eight items in total
  - at least one item will be worth from six to eight marks.

**Section II – Options** **40 marks**

- there will be two questions for each of the five options
- students will be required to answer both questions on the two options they have studied
- the first question on each option will be worth eight marks and may contain parts
- the second question on each option will be an extended response worth 12 marks with an expected length of response of around three and a half pages of an examination booklet.

## How is PDHPE relevant to tertiary studies and career choice?

Related fields of study include: medicine, nursing, physiotherapy, biomechanics, nutritionist, sports psychologist, sport science, human movement, health promotion and PDHPE teaching and all other applied sciences.

# Chinese Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Chinese Continuers?

Students who have studied Chinese Beginners in Years 7 to 10 as a second language at school or privately and gained a sound knowledge of the language equivalent to 200 to 300 hours of study. For more information, please ask the Chinese teachers.

## Why study Chinese Continuers?

Chinese is a significant world language, one of the official languages of the United Nations and is spoken by about one quarter of the world's population. There are many spoken varieties of Chinese, and modern standard Chinese is pre-eminent among these. It is the major language of communication in China, Taiwan and Singapore and is widely used by Chinese communities throughout the Asia-Pacific region including Australia.

The study of Chinese contributes to the overall education of students, particularly in the areas of communication, cross-cultural understanding, literacy and general knowledge. It provides access to the culture of Chinese-speaking countries and communities. The study promotes understanding of different attitudes and values within the wider Australian community and beyond.

- Chinese interacts well with other subjects requiring more research tasks and/or essay writing. It works well with Visual Arts, History, Music and even Science and Mathematics.
- Studying Chinese can provide a basis for continued learning and a pathway for students into post-secondary options. These options may include employment domestically or internationally in areas such as tourism, technology, finance, services and business.
- The significance of Chinese within and beyond Australia requires strategies for the building of sociocultural, economic and political engagement; learning Chinese in the Australian context will support such engagement.

## Course description:

The aim of the course is to foster within students the ability to:

- exchange information, opinions and experiences in Chinese (speaking)
- understand, analyse, process and respond to texts that are in Chinese (listening/reading)
- express ideas through the production of original written texts in Chinese (writing)
- understand aspects of the language and culture of Chinese-speaking communities.

Students who enjoyed the challenge of learning Chinese to the Record of School Achievement level will derive further satisfaction from developing their language skills to a higher level. Senior programs provide students with access to a wide range of texts such as:

- short stories
- newspaper articles
- reviews and magazines
- recorded conversations
- films
- emails
- letters

Study of these texts will provide students with an insigt into the Chinese culture and language. The students' skills and knowledge will be developed through tasks treating prescribed themes and topics.

## Main topics covered:

These are related to the three main themes: the individual, the Chinese-speaking communities and the changing world, prescribed by the new HSC syllabus. Students will explore a variety of topics relating directly to their interests such as:

- Personal identity
- Education and aspirations
- Recreation and leisure
- Travel experiences
- History and culture
- Lifestyles
- Youth issues
- The world of work
- Tourism and hospitality

The HSC Language Examination tests students on their knowledge in those areas. It is therefore fundamental to cover topics early in Year 11. In fact, preparation for the HSC Examination in Languages takes place over two years, not just Year 12, and students are requested to keep all Year 11 material for revision in Year 12.

Our lessons are based on a communicative functional/situational approach reflecting modern language teaching/learning practices. The use of Chinese in the classroom is therefore a priority.

## Learning strategies:

Students build on the basic tools for communication acquired in Years 7 to 10 through the use of known and new vocabulary, including parts of speech and grammar.

- Regular memorisation of Chinese structures and reinforcement exercises in the four skills are important for steady work progress to occur. Regular homework after each new unit is the best: workbook exercises, worksheets, speaking and writing tasks.
- Frequent revision and completion of shorter tasks in small spurts is recommended.
- Seek further experience in Chinese language beyond the classroom walls, such as Chinese magazines and Chinese language learning websites.

## What other opportunities does Chinese Continuers offer me?

- Hosting overseas students through student-exchange organisations.
- Taking part in a student-exchange program, AFS, Southern Cross.
- Opportunity to travel to China.
- Joining in conversation classes with native speakers at school.
- Participating in the National Chinese Eisteddfod and in the Chinese Bridge Competition for secondary school students

# Chinese Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
This unit is to be considered only after the yearly examination in Term 3 in Year 11.

## What background knowledge do I need to study Chinese Extension?

Preliminary and HSC Continuers courses in Chinese.

## Why study Chinese Extension?

Students with marked linguistic ability have the opportunity to further study their chosen language through a prescribed film. This course is designed to enhance students' knowledge and understanding of a range of issues as reflected in contemporary Chinese texts, while extending their ability to use and appreciate Chinese as a medium for communication, and creative thought and expression in speaking and writing.

## Prescribed issues covered:

Students can extend their skills further through the exploration of such contemporary issues as:

- Education
- Relationships
- Division in society

Students are encouraged to express their creative thoughts in Chinese. Students will start the Chinese Extension Course in Term 4, Year 11.

# Classical Greek Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Classical Greek Continuers?

200 to 300 hours study of Classical Greek.

## Why study Classical Greek Continuers?

Students' knowledge of the development of language and literature, and their appreciation of ancient and modern cultures and civilisations, are enhanced by the study of Classical Greek. In the cultural tradition of Western Europe, it is the language of some of the earliest written stories, and of the first drama and philosophy. Modern literature in English and other European languages is filled with classical allusions which are readily recognised by the student who has encountered them in the original language.

## Course description:

The principal aim in studying Classical Greek is to acquire first-hand knowledge of the literature, culture and thought of the ancient Greeks. Those who have studied the language up to Year 10 have acquired an excellent foundation which is built upon in the Preliminary course (Year 11), to bring them to the point where they will be able to read in the original language, some of the greatest literature ever written. Students will also develop an appreciation of the continuing influences of ancient Greece on the languages, cultures, literatures and traditions of the modern world.

## Main topics covered:

**Preliminary Course**

Students continue to study Classical Greek grammar, while being introduced to extracts from the works of the authors such as Euripides, Thucydides, Plato, Herodotus and Aristophanes.

**HSC Course**

Students study a prescribed prose text and a prescribed verse text. The authors, whose works are set for 2019, are: for prose, a courtroom speech by Lysias; and, for verse, *Electra* by Euripides. Students study extracts from each text in the original Classical Greek and the rest of the text in translation.

Areas of study include:

- Language and linguistic features
- Literary features
- Social and historical context
- Historical, religious and cultural references
- Ideas, beliefs, arguments and practices within these texts.

## HSC examination structure:

One three-hour written paper.

- Section I Questions on the prose text (translation, comment)
- Section II Questions on the verse text (translation, comment)
- Section III Unseen translation

## How is Classical Greek Continuers relevant to tertiary studies and career choice?

Classical Greek is an excellent foundation for many areas of study, including law, medicine, government, journalism and the creative arts. A good knowledge of Classical Greek enhances and improves a student's understanding of English, which is a great benefit not only in study but also in most fields or work. The study of Classical Greek allows English-speaking students to appreciate a very different form of communication and to develop techniques of linguistic analysis which facilitate the learning of further languages. From Classical Greek comes much of the technical vocabulary used today in medicine and the sciences and familiarity with Greek art and architecture still provides a strong basis for study in these fields. The literature studied is some of the finest ever written, and provides a basis for the appreciation of later works, and may be a stimulus for the student's own creative writing.

# Classical Greek Extension (HSC level only)

1 unit in HSC only
NESA Developed Course

## What background knowledge do I need to study Classical Greek Extension?

Classical Greek Preliminary and HSC Continuers course.

## Why study Classical Greek Extension?

While the study of Classical Greek at Continuers level develops a variety of skills and enhances the understanding of culture and language, the Extension course provides the opportunity for a wider exploration of Classical Greek literature in an area that is not explored in the Continuers course, with a greater emphasis upon the analysis and appreciation of Classical Greek text.

## Course description:

The Classical Greek Extension Course aims to build upon the knowledge and skills acquired in the Continuers course.

The course is based upon Homer's *Iliad* and *Odyssey*, the epic poems which stand at the head of western European literature. These heroic tales of war and adventure have entertained for 3,000 years, enriching western literature beyond measure.

The text prescribed for study each year is one book of the *Iliad* or the *Odyssey*. Students study part of the book in the original Greek and the rest in translation.

## HSC examination structure:

One written paper of 1 hour 50 minutes:

- Section I Questions on the prescribed text (translation, comment)
- Section II Unseen translation

# French Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study French Continuers?

Students who have studied French in Years 7 to 10 or who have a sound knowledge of the language equivalent to 200 to 300 hours of study. For more information, please ask the French teachers.

## Why study French Continuers?

- Language is the basis of all communication and human interaction. By learning a second or subsequent language, students develop the knowledge, understanding and skills for successful participation in the dynamic world of the 21st Century. Communicating in another language expands students' horizons as both national and global citizens.
- Through the study of the French language, students will develop linguistic ability and gain a deeper cultural understanding. The ability to communicate in French also promotes harmony and co-operation with French-speaking communities and provides students, in conjunction with their other skills, with enhanced vocational opportunities.
- Language learning interacts well with other subjects requiring more research tasks and/or essay writing. It works well with Visual Arts, History, Geography, Music and even Science, Mathematics and English.
- Learning French may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as the arts, banking and international finance, commerce, hospitality, diplomacy, education and research, fashion, government, law, media, science and technology, engineering, tourism, translation and interpreting.

## Course description:

The emphasis is always on real communication in developing the four skills of listening, speaking, reading and writing. The aim of the course is to foster within students the ability to:

- exchange information, opinions and experiences in French (speaking)
- understand, analyse, process and respond to texts that are in French (listening/reading)
- express ideas through the production of original written texts in French (writing)
- understand aspects of the language and culture of French-speaking communities.

Students who enjoyed the challenge of learning French during Years 7 to 10 to the Record of School Achievement (RoSA) level will derive further satisfaction from developing their language skills to a higher level. Our senior programs provide students with access to a wide range of texts such as: short stories, newspaper articles, reviews and magazines, recorded conversations, films, emails, letters. Study of these texts will provide students with an insight into the culture and language of French-speaking communities. The students' skills and knowledge will be developed through tasks treating prescribed themes and topics.

## Main topics covered:

These are related to the three main themes: the individual, the French-speaking communities and the changing world. Students will explore a variety of topics relating directly to their interests such as:

- Relationships, family, friends and home life
- Leisure, interests
- Daily life and lifestyles
- Arts and entertainment
- School life and future aspirations
- Travel and tourism
- Youth culture, fashion and technology
- Current issues, careers and occupations

The HSC Language Examination tests students on their knowledge in those areas. It is therefore fundamental to cover topics early in Year 11. In fact, preparation for the HSC Examination in Languages takes place over two years, not just Year 12, and students are requested to keep all Year 11 material for revision in Year 12.

Our lessons are based on a communicative functional/situational approach reflecting modern language teaching/learning practices. The use of French in the classroom is therefore a priority.

## Learning strategies:

Students build on the basic tools for communication acquired in Years 7 to 10 through the use of known and new vocabulary, including parts of speech and grammar.

- Regular memorisation of French structures and reinforcement exercises in the four skills are paramount for steady progress to occur. This includes regular homework, workbook exercises, worksheets, speaking and writing tasks.
- Frequent revision and completion of shorter tasks in small spurts is recommended.
- Seeking further experience in French language beyond the classroom walls is also encouraged e.g. Alliance Française, French magazines, French websites, French films.

## What other opportunities does French Continuers offer me?

- Hosting overseas students through our student-exchange program.
- Taking part in a student-exchange program, AFS, AGSES, Southern Cross, Antipodeans Abroad. Information available from the French teachers.
- Attend our sister school in Lyon or Colmar, France. Experience a homestay with a French family and make life-long friends.
- Opportunities to win scholarships for exchange or in-country experience.
- Joining conversation classes at school and by the Alliance Française.

# French Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
This unit is to be considered only after the yearly examination in Term 3 in Year 11.

## What background knowledge do I need to study French Extension?

Preliminary and HSC Continuers courses in French.

## Why study French Extension?

The French Extension course builds upon the body of knowledge and skills acquired in the French Continuers course. It provides students with opportunities to develop a greater competence and fluency in the language and to explore contemporary issues in French.
The course provides opportunities for students to:

- enhance their enjoyment of learning French by broadening and deepening their language experience
- gain insight into the culture of French-speaking communities and communities' perspectives on contemporary issues
- gain an appreciation of the French language through the study of the prescribed film: *Les Intouchables* (2011).
- use French as an adjunct to their career path.

## Prescribed issues covered:

Students extend their skills further by studying a prescribed film and through the exploration of three prescribed issues:

- Acceptance
- Resilience
- Identity

The new 2020 prescribed issues will be confirmed when published by NESA.

Students are encouraged to express their creative thoughts in French. Students will start the French Extension course in Term 4, Year 11.

# German Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study German Continuers?

Students who have studied German in Years 7 to 10 or who have a sound knowledge of the language equivalent to 200 to 300 hours of study. For more information, please ask the German teachers.

## Why study German Continuers?

- German-speaking countries have emerged as strong international leaders in trade, commerce and politics. Germany is one of Australia's largest single trading partners, and German is a very important language both internationally and within Australia. It has long been recognised as a 'world' language of music, culture, theology and philosophy as well as a key language in the fields of science, medicine, economics and technology.
- The study of German contributes to the overall education of students, particularly in the areas of communication, inter-cultural understanding, literacy and general knowledge.
- Language learning interacts well with other subjects requiring more research tasks and/or essay writing. It works well with Visual Arts, History, Geography, Music and even Science and Mathematics.
- Learning German may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as the arts, banking and international finance, commerce, catering and cuisine, diplomacy, education and research, fashion, government, law, media, science and technology tourism, translation and interpreting.

## Course description:

The aim of the course is to foster within students the ability to:

- exchange information, opinions and experiences in German (speaking)
- understand, analyse, process and respond to texts that are in German (listening/reading)
- express ideas through the production of original written texts in German (writing)
- understand aspects of the language and culture of German-speaking communities.

Students who enjoyed the challenge of learning German from Years 7 to 10 to the Record of School Achievement (RoSA) level will derive further satisfaction from developing their language skills to a higher level. Senior programs provide students with access to a wide range of texts such as: short stories, newspaper articles, reviews and magazines, recorded conversations, films, emails, letters. The study of these texts will provide students with an insight into the culture and language of German-speaking communities. The students' skills and knowledge will be developed through tasks treating prescribed themes and topics.

## Main topics covered:

These are related to the three main themes: the individual, the German-speaking communities and the changing world, prescribed by the new HSC syllabus. Students will explore a variety of topics relating directly to their interests such as:

- Relationships, family, friends and home life
- Leisure, interests
- Daily life and lifestyles
- Arts and entertainment
- School life and future aspirations
- Travel and tourism
- Youth culture, fashion and technology
- Current issues, careers and occupations

The HSC Language Examination tests students on their knowledge in those areas. It is therefore fundamental to cover topics early in Year 11. In fact, preparation for the HSC Examination in Languages takes place over two years, not just Year 12, and students are requested to keep all Year 11 material for revision in Year 12. Our lessons are based on a communicative functional/situational approach reflecting modern language teaching/learning practices. The use of German in the classroom is therefore a priority.

## Learning strategies:

- Students build on the basic tools for communication acquired in Years 7 to 10 through the use of known and new language structures.
- Regular memorisation of German structures and reinforcement exercises in the four skills are paramount for steady progress to occur. Regular homework after each new unit is best e.g. workbook exercises, worksheets, speaking and writing tasks.
- Frequent revision and completion of shorter tasks in small spurts is recommended.
- Seek further experience in German language beyond the classroom walls such as Goethe-Institut, German magazines, German websites and German films.

## What other opportunities does German Continuers offer me?

- Hosting overseas students through our student-exchange program.
- Taking part in a student-exchange program, AFS, AGSES and Southern Cross. Information is available from the German Teachers.
- Attending our sister school in Münster, Germany. Enjoy a homestay with a German family and make life-long friends.
- Opportunities to win scholarships for exchange or in-country experience.
- Joining in conversation classes at school and at the Goethe-Institut.

# German Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
This unit is to be considered only after the yearly examination in Term 3 in Year 11.

## What background knowledge do I need to study German Extension?

Preliminary and HSC Continuers courses in German.

## Why study German Extension?

Students with marked linguistic ability have the opportunity to further study their chosen language through a novel called *Tschick* (in English, *Why we took the car)*. This course is designed to enhance the students' knowledge and understanding of a range of issues as reflected in contemporary German society, while extending their ability to use and appreciate German as a medium for communication, and creative thought and expression.

## Prescribed issues covered:

The focus of the German Extension course is the theme: the individual and contemporary society. Students with marked linguistic ability can extend their skills further by studying this prescribed novel and through the study of others related texts, exploring the prescribed contemporary issues of:

- Youth issues
- Relationships
- Identity

Students are encouraged to express their creative thoughts in German. Students will start the German Extension Course in Term 4, Year 11.

# Italian Beginners

2 units for each of Preliminary and HSC
NESA Developed Course
A Beginners course is intended to cater for students who have very little or no prior knowledge of a language. All intending Beginners language students must complete the *Beginners Languages Eligibility Declaration*
**Note:** Please check eligibility rules with your teacher

## What backbround knowledge do I need to study Italian Beginners?

It is essential that students have had no more than 100 hours of study of Italian at the secondary level or have not spent more than three months in Italy as exchange students. Speak to a language teacher regarding eligibility requirements.

## Why study Italian Beginners?

- Italy is one of the most industrially and economically advanced nations in the world and ranks among Australia's top international trading partners. Italy remains a strong buyer of Australian primary products, while Australia has been a consistent buyer of Italian technology and design.
- Language learning interacts well with other subjects such as Music, Visual Arts, Geography, History, Hospitality or other languages to mention just a few. It even goes well with Mathematics and Science where students learn to hypothesise and experiment with new concepts. Students learn how to learn and relearn new things.
- Italians and the Italian language make a distinctive contribution to politics, art, architecture, cuisine, music, science, literature, film and theatre. The study of Italian enhances students' enjoyment and appreciation of these areas. Students have much to gain by acquiring knowledge of the language and cultural heritage of Italy.

The aim of the course is to foster within students the ability to:

- communicate with others
- understand the connection between Italian and English and improve their English vocabulary and grammar
- apply Italian to work, further study or leisure
- develop their knowledge and understanding of Italian through communicative tasks across a range of themes and topics.

In the Preliminary course, students will develop their knowledge and understanding of Italian across a range of topics. These will be explored through the integrated use of the four skills: listening, speaking, reading and writing.

In the HSC course, students will continue to develop their knowledge and understanding of Italian through these four skills. Study may cover new topics or more detailed treatment of topics previously studied.

## Main topics covered:

During the two-year course, students develop the skills of reading, writing, listening and speaking in the following topics:

- Personal information
- Family and friends
- Physical condition
- Weather
- Leisure, sport, music,
- Holidays, accommodation, transport
- School
- Eating and drinking, shopping and services, social interaction
- Special events
- Future aspirations

## Learning strategies:

- Regular memorisation of language structures and vocabulary and their practical application through reinforcement exercises in the four skills are paramount for steady progress to occur. Homework tasks need to be done regularly by students after each new unit of work e.g. workbook exercises, worksheets, speaking and writing tasks.
- Students are encouraged to seek further experience in Italian beyond the classroom walls, such as Italian magazines, Italian websites and films.

## What other opportunities does Italian Beginners offer me?

- Hosting overseas students through student-exchange organisations.
- Taking part in a student-exchange program, AFS, AGSES, Southern Cross. (Information available from the Italian teacher and the Exchange Co-ordinator.)
- Opportunity to travel to Italy and study at the University for Foreigners in Perugia.
- Joining in conversation classes at school and at Co.As.It.

# Japanese Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Japanese Continuers?

Students who have studied Japanese in Years 7 to 10 as a second language at school or privately and gained a sound knowledge of the language equivalent to 200 to 300 hours of study. For more information, please ask the Japanese teachers.

## Why study Japanese Continuers?

The study of the Japanese language is of particular importance to Australians, both culturally and economically. Japan is one of Australia's leading trading partners and there are significant cultural ties between Australia and Japan. Japanese has been identified as one of the priority languages in the Asia-Pacific region to be taught in Australian schools.

The study of Japanese contributes to the overall education of students, particularly in the areas of communication, cross-cultural understanding, literacy and general knowledge. Students can gain access to both the language and the rich cultural traditions of Japan, as well as an understanding of different attitudes and values within the wider Australian community and beyond.

Learning Japanese may, in conjunction with other skills, provide students with enhanced vocational opportunities in areas such as banking and international finance, technology, trade, tourism and hospitality, education and research, the arts, diplomacy, government, law, media and advertising, translation and interpreting.

## Course description:

The aim of the course is to foster within students the ability to:

- exchange information, opinions and experiences in Japanese (speaking)
- understand, analyse, process and respond to texts that are in Japanese (listening/reading)
- express ideas through the production of original written texts in Japanese (writing)
- understand aspects of the language and culture of Japanese-speaking communities.

Students who enjoyed the challenge of learning Japanese to the Record of School Achievement level will derive further satisfaction from developing their language skills to a higher level. Senior programs provide students with access to a wide range of texts such as:

- short stories
- newspaper articles
- reviews and magazines
- recorded conversations
- films
- emails
- letters

Study of these texts will provide students with an insight into the Japanese culture and language. The students' skills and knowledge will be developed through tasks treating prescribed themes and topics.

## Main topics covered:

These are related to the three main themes: the individual, the Japanese-speaking communities and the changing world, prescribed by the new HSC syllabus. Students will explore a variety of topics relating directly to their interests such as:

- Personal world, relationships, family, friends and home life
- Leisure, interests
- Daily life and lifestyles
- Travelling and living in Japan
- School life and future aspirations
- Traditional and contemporary culture in Japan
- Technology, youth issues and social issues

The HSC Language Examination tests students on their knowledge in those areas. It is therefore fundamental to cover topics early in Year 11. In fact, preparation for the HSC Examination in Languages takes place over two years, not just Year 12, and students are requested to keep all Year 11 material for revision in Year 12.

Our lessons are based on a communicative functional/situational approach reflecting modern language teaching/learning practices. The use of Japanese in the classroom is therefore a priority.

## Learning strategies:

Students build on the basic tools for communication acquired in Years 7 to 10 through the use of known and new vocabulary, including parts of speech and grammar.

- Regular memorisation of Japanese structures and reinforcement exercises in the four skills are paramount for steady work progress to occur. Regular homework after each new unit is the best: workbook exercises, worksheets, speaking and writing tasks.
- Frequent revision and completion of shorter tasks in small spurts is recommended.
- Seek further experience in Japanese language beyond the classroom walls, such as Japanese magazines, Japanese language learning websites and Japanese films.

## What opportunities does Japanese Continuers offer me?

- Hosting overseas students from our sister schools, Seirinkan High School and Doshisha Kori High School in Japan.
- Going on exchange to our sister school, Seirinkan High School and Doshisha Kori High School, Japan, in the summer holidays.
- Joining in conversation classes with a native speaker.

# Japanese Extension (HSC level only)

1 unit in HSC only
NESA Developed Course
This unit is to be considered only after the yearly examination in Term 3 in Year 11

## What background knowledge do I need to study Japanese Extension?

Preliminary and HSC Continuers courses in Japanese.

## Why study Japanese Extension?

Students with marked linguistic ability have the opportunity to further study their chosen language through a prescribed film, *Kimi no Na wa* (*Your name?*). This course is designed to enhance students' knowledge and understanding of a range of issues as reflected in contemporary Japanese texts, while extending their ability to use and appreciate Japanese as a medium for communication, and creative thought and expression.

## Prescribed issues covered:

Students with marked linguistic ability can extend their skills further by studying a prescribed film and through the exploration of such contemporary issues as:

- Connectedness
- Journeys
- Impact of the past

Students are encouraged to express their creative thoughts in Japanese. Students will start the Japanese Extension Course in Term 4, Year 11.

# Latin Continuers

2 units for each of Preliminary and HSC
NESA Developed Course

## What background knowledge do I need to study Latin Continuers?

200 to 300 hours study of Latin, or equivalent.

## Why study Latin Continuers?

The study of Latin provides students with a wonderful opportunity to investigate the culture, thought and literature of Ancient Rome. It also allows students to read the works of outstanding Roman authors in their own language and thus to develop an appreciation of the continuing influences of Latin on the languages, cultures, literature and traditions of the modern world.

## Course description:

**Preliminary Course**

Students continue to study Latin grammar, while being introduced to the work of original Roman authors such as Catullus, Cicero, Horace, Pliny and Tacitus.

**HSC Course**

Students study a prose text from Cicero, and a verse text, from Virgil's *Aeneid.* They study extracts in the original Latin and the rest of the text in translation.

**Areas of Study include:**

- Language and linguistic features
- Literary features
- Social and historical context
- Historical, religious and cultural references
- Ideas, beliefs, arguments and practices within the texts.

## HSC examination structure:

One three-hour written paper:

- Section I Questions on the prose text (translation, grammar, comment)
- Section II Questions on the verse text (translation, grammar, comment)
- Section III Unseen translation

## How is Latin Continuers relevant to tertiary studies and career choice?

Latin is an excellent foundation for many areas of study. The linguistic understanding it provides is an ideal base from which to learn many modern languages, both European and Asian as well as other ancient languages and access the field of linguistics itself.

A good knowledge of Latin enhances and improves a student's understanding of English, which is a great benefit not only in study but also in most fields of work. Latin vocabulary and phrases continue to be used in the fields of law and medicine, and a considerable proportion of scientific terminology is derived from Latin. The literature studied is some of the greatest ever written, and is an excellent basis both for appreciation and critical analysis of later works and for the student's own writing, creative, professional or academic.

# Latin Extension (HSC level only)

1 unit in HSC only
NESA Developed Course

## What background knowledge do I need to study Latin Extension?

Preliminary and HSC Continuers courses in Latin.

## Why study Latin Extension?

Latin Extension is designed for students undertaking the Latin Continuers course who choose to study Latin at a more intensive level. The extension course focuses on a theme or genre rather than an individual author.

## Course description:

Prescribed texts provide the focus of the Extension course. The texts have been selected as representative of a major genre of Latin literature not studied in the Continuers course.

The prescribed genre for the 2020-2022 HSC is lyric poetry. In the study of this genre, students will read works by the famous poets Catullus and Horace, and are required to translate, analyse, evaluate and compare these authors.

## HSC examination structure:

One written paper of two hours:

- Section I Questions on the prescribed texts (translation, comment).
- Section II Unseen translation from the prescribed genre, with attached questions.