

Higher School Certificate

Stage 6



Subject Selection

Year 11

2019

Subject Selection for Year 11 2019

This booklet is the start of the Subject Selection process and should be used in conjunction with the NESA information that you will also receive. Please note that the information supplied is current as at time of publishing. The Board is currently reviewing some courses. You will be advised of any course changes if they occur.

Handy Hints in Subject Choice

- Be realistic about your son's ability. There will be little change in his ability at this stage even if he says "I will work harder" because the courses in Year 11 are harder than he has experienced.
- He should decide if he wants to study subjects that may be relevant to him or subjects that others feel he should do or what friends want to study.
- He should ask what he wants to do with an ATAR. (A TAFE course does **not** need an ATAR).
- Does he want to complete Year 12 with a sense of high self-esteem by completing a course of study that he feels he has achieved at, or does he want to complete Year 12 with a low self-esteem because of extremely low marks and a sense that he has achieved very little?
- The student is sitting for the HSC, not his parents. Thus, what the parent feels "is worthwhile" for the future may not interest the student or may require skills that he doesn't possess.
- Remember there is enough stress for a student adapting to Year 11 without the added pressure of trying to cope with a subject he doesn't like or hasn't chosen wisely.

The Selection Process

Information Evening 1 – Wednesday 13th August 2018

Handing out of all information regarding courses, university etc.

Information Evening 2 – Tuesday 21st August 2018

Selections are made after this evening. This allows the College to develop the grouping of subjects to satisfy the majority of students. Staff will be available to discuss subjects and choices.

At any time in this selection process if you feel that you require more information or assistance, please do not hesitate to contact the College.

Rowan Dray

Curriculum Co-ordinator

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Course: English (Standard)

Course No:

- 11130 Year 11 English Standard
- 15130 Year 12 English Standard.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: English Advanced; English Studies; English EAL/D; English Extension

Course Description

In the English Standard Year 11 course, students learn about language and literature by exploring and experimenting with the ways events, experiences, ideas and processes are represented in and through texts. Students study a range of texts which include prose fiction, drama, poetry, nonfiction, film, digital and media, as well as Australian texts.

In the English Standard Year 12 course, students further strengthen their knowledge and understanding of language and literature by reflecting on and demonstrating the effectiveness of texts, including their own, for different audiences and purposes. Students study at least three types of prescribed texts drawn from: prose fiction; poetry or drama; film or media or nonfiction texts.

In this course, students will consolidate their English literacy skills in order to enhance their personal, social, educational and vocational lives.

Content

Year 11

The course has two sections:

- Content common to the English Standard and English Advanced courses is undertaken through a unit of work called *Reading to Write: Transition to Senior English*. Students explore texts and consolidate skills required for senior study.
- Two additional modules: *Close Study of Literature*, and *Contemporary Possibilities* in which students explore and examine texts and analyse aspects of meaning.

Year 12

The course has two sections:

- The HSC Common Content consists of one module *Texts and Human Experiences* which is common to the HSC Standard, the HSC Advanced and the HSC English Studies courses where students analyse and explore texts and apply skills in synthesis.
- Three additional modules which emphasise particular aspects of shaping meaning and demonstration of the effectiveness of texts for different audiences and purposes.

Course Requirements

Across the English Standard Stage 6 Course students are required to 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.

Year 11

Students are required to study:

- one complex multimodal or digital text in Module A (this may include the study of film)
- 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
- a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts
- a wide range of additional related texts and textual forms.

Year 12

Students are required to study:

- at least three types of prescribed text, one drawn from each of the following categories: prose fiction; poetry or drama; film or media or nonfiction texts
- at least two additional prescribed texts from the list provided in *Module C: The Craft of Writing*
- at least one related text in the *Common module: Texts and Human Experiences*.

Course: English (Advanced)

Course No:

- 11140 Year 11 English Advanced
- 15140 Year 12 English Advanced.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: English Standard; English Studies; English EAL/D

Course Description

In the English Advanced Year 11 course, students explore, examine and analyse a range of texts which include prose fiction, drama, poetry, nonfiction, film, digital and media, as well as Australian texts. They explore the ways events, experiences, ideas, values and processes are represented in and through texts and analyse the ways texts reflect different attitudes and values.

In the English Advanced Year 12 course, students further strengthen their knowledge and understanding of language and literature by analysing and evaluating texts and the ways they are valued in their contexts. Students study at least four prescribed texts drawn from: Shakespearean drama; prose fiction; poetry or drama; film or media or nonfiction.

In this course, students develop their higher-order thinking skills to enhance their personal, social, educational, and vocational lives.

Content

Year 11

The course has two sections:

- Content common to the English Standard and English Advanced courses is undertaken through a unit of work called *Reading to Write: Transition to Senior English*. Students explore texts and consolidate skills required for senior study.
- Two additional modules: *Critical Study of Literature*, and *Narratives that Shape our World* in which students explore, examine and analyse the ways in which texts and contexts shape and are shaped by different attitudes and values.

Year 12

The course has two sections:

- The HSC Common Content consists of one module *Texts and Human Experiences* which is common to the HSC Standard, the HSC Advanced and the HSC English Studies courses where students analyse and explore texts and apply skills in synthesis.
- Three additional modules which emphasise particular aspects of shaping meaning and representation, questions of textual integrity, ways in which texts are valued and the demonstration of the effectiveness of texts for different audiences and purposes.

Course Requirements

Across the English Advanced Stage 6 course students are required to 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.

Year 11

Students are required to study:

- a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts
- a wide range of additional related texts and textual forms.

Year 12

Students are required to study:

- at least four prescribed texts, one drawn from each of the following categories: Shakespearean drama; prose fiction; poetry **or** drama. The remaining text may be film **or** media **or** a nonfiction text **or** may be selected from one of the categories already used
- at least two additional prescribed texts from the list provided in *Module C: The Craft of Writing*
- at least one related text in the *Common module: Texts and Human Experiences*.

Courses: Preliminary English Extension

- HSC English Extension 1
- HSC English Extension 2

Course No:

- 11150 Year 11 English Extension
- 15160 Year 12 English Extension 1
- 15170 Year 12 English Extension 2.

1 unit for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Prerequisites:

- (a) English Advanced
- (b) English Extension in Year 11 is a prerequisite for English Extension 1 in Year 12
- (c) English Extension 1 in Year 12 is a prerequisite for English Extension 2

Exclusions: English Standard; English Studies; English EAL/D.

Course Description

In the English Extension Year 11 course, students explore the ways in which aspects and concerns of texts from the past have been carried forward, borrowed from and/or appropriated into more recent culture. They consider how and why cultural values are maintained and changed.

In the English Extension 1 Year 12 course, students explore, investigate, experiment with and evaluate the ways texts represent and illuminate the complexity of individual and collective lives in literary worlds.

In the English Extension 2 Year 12 course, students develop a sustained composition, and document their reflection on this process.

In studying these courses, students will develop skills to work independently to experiment with language forms, features and structures and to engage with complex levels of conceptualisation.

Content

Year 11

The course has one mandatory module: *Texts, Culture and Value* as well as a related research project.

Year 12

English Extension 1 course – The course has one common module, *Literary Worlds*, with five associated electives. Students must complete one elective chosen from one of the five electives offered for study.

The electives are

- Literary homelands
- Worlds of upheaval
- Reimagined worlds
- Literary mindscapes
- Intersecting worlds

English Extension 2 course – The course requires students to undertake a composition process in order to complete a Major Work and Reflection Statement.

Course Requirements

Across Stage 6 the selection of texts should give students experience of the following as appropriate:

- 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
- a range of types of texts drawn from prose fiction, drama, poetry, nonfiction, film, media, multimedia and digital texts.

Year 11

Students are required to:

- examine a key text from the past and its manifestations in one or more recent cultures
- explore, analyse and critically evaluate different examples of such texts in a range of contexts and media
- undertake a related research project.

Year 12

In the English Extension 1 course students are required to study:

- at least **three** prescribed texts for the elective study which must include two extended print texts (as outlined in the English Stage 6 Prescriptions: Modules, Electives and Texts Higher School Certificate 2019–2023 document)
- at least **TWO** related texts.

In the English Extension 2 course students are required to:

- Complete a Major Work which involves students undertaking extensive independent investigation involving a range of complex texts during the composition process and document this in their Major Work Journal and Reflection Statement.
- Students can choose to compose in **ONE** of the following forms:
 - short fiction
 - creative non-fiction
 - poetry
 - critical response
 - script – short film, television, drama
 - podcasts – drama, storytelling, speeches, performance poetry
 - multimedia.

Course: English Studies

Course No:

- 30105 Year 11 English Studies
- 30115 Year 12 English Studies.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: English Advanced; English Standard; English EAL/D; English Extension

Course Entry Guidelines

This course is designed to meet the specific needs of students who wish to refine their skills and knowledge in English and consolidate their literacy skills. It is a course for students who are seeking an alternative to the English Standard course and who intend to proceed from school directly into employment or vocational training.

Due to changes in the English Studies course, students considering choosing this course should be advised that:

- English Studies is a Stage 6 Board Developed Course (Category B) to be implemented with Year 11 from 2018
- From the 2019 HSC, students will be able to sit for an optional HSC examination and will be reported on a common scale with the English Standard and English Advanced courses
- Students choosing not to sit for the English Studies HSC examination will still be eligible for the HSC if they have satisfactorily completed courses that comprise the pattern of study required by NESA
- To be eligible for an ATAR, students studying the English Studies course must complete the optional HSC examination and include a further 8 units of Category A courses in their pattern of study.

Course Description

In the English Studies course, students explore the ideas, values, language forms, features and structures of texts in a range of personal, social, cultural and workplace contexts. They respond to and compose texts to extend experience and understanding, access information and assess its reliability, and synthesise the knowledge gained from a range of sources for a variety of purposes.

In this course, students will consolidate their English literacy skills to enhance their personal, social, educational and vocational lives.

Content

Year 11

- Students study the mandatory module, *Achieving through English: English in education, work and community* to develop an understanding of, and practical competence in, the use of language that allows access to opportunities in schooling, training and employment.
- Students study 2–4 additional syllabus modules (selected based on their needs and interests).
- Students may also study an optional teacher-developed module.

Year 12

- The HSC Common Content consists of one module *Texts and Human Experiences* which is also common to the HSC Standard and the HSC Advanced courses where students analyse and explore texts and apply skills in synthesis.
- Students study 2–4 additional syllabus modules (selected based on their needs and interests).
- Students may also study an optional teacher-developed module.

Course Requirements

Across the English Studies Stage 6 Course students are required to 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.

Year 11 and Year 12

Students are required to:

- read, view, listen to and compose a wide range of texts including print and multimodal texts
- study at least one substantial print text (for example a novel, biography or drama)
- study at least one substantial multimodal text (for example film or a television series)
- be involved in planning, research and presentation activities as part of one individual and/or collaborative project
- develop a portfolio of texts they have planned, drafted, edited and presented in written, graphic and/or electronic forms across all the modules undertaken during the year
- engage with the community through, for example, visits, surveys, interviews, work experience, listening to guest speakers and/or excursions.

Year 12

In addition to the above requirements, students in Year 12 **only** are required to:

- study ONE text from the prescribed text list and one related text for the Common Module – Texts and Human Experiences.

Course: Mathematics Standard

Course No:

- 11236 Year 11 Mathematics Standard
 - 30125 Year 12 Mathematics Standard 1.
- 2 units Year 11 (Preliminary) and Year 12 (HSC).
Board Developed Course.

Prerequisites:

The Mathematics Standard 1 Year 11 course has been developed on the assumption that students have studied the content and achieved the outcomes of the NSW *Mathematics Years 7–10 Syllabus* and in particular, the content and outcomes of all substrands of Stage 5.1 and the following substrands of Stage 5.2:

- Area and surface area
- Financial mathematics
- Linear relationships
- Non-linear relationships
- Right-angled triangles (Trigonometry)
- Single variable data analysis
- Volume
- some content from Equations
- some content from Probability.

Exclusions:

Students may **not** study any other Stage 6 mathematics Year 11 course in conjunction with the Mathematics Standard Year 11 course, or any other Stage 6 mathematics Year 12 course in conjunction with the Mathematics Standard 1 Year 12 course.

Course description

- The Mathematics Standard Year 11 course is a common course for all students studying the Mathematics Standard syllabus. In Year 12 students can elect to study either the Mathematics Standard 1 Year 12 course (Category B) or the Mathematics Standard 2 Year 12 course (Category A).
- Mathematics Standard Year 11 course content that is essential for Mathematics Standard 1 Year 12 is identified by the symbol \diamond .
- Students studying the Mathematics Standard 1 course may elect to undertake an optional HSC examination.
- To be eligible for an ATAR, students studying the Mathematics Standard 1 course must undertake a pattern of study to satisfy the ATAR requirements and complete the optional HSC examination. For the purposes of calculating the ATAR, no more than 2 units from Category B courses can be included.
- All students studying the Mathematics Standard course in Stage 6 will have the opportunity to enhance their numeracy skills and capabilities. The content of the course aligns with Level 3 of the Australian Core Skills Framework.

The study of Mathematics Standard 1 in Stage 6:

- enables students to develop their knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities for students to consider various applications of mathematics in a broad range of contemporary contexts through the use of mathematical modelling and use these models to solve problems related to their present and future needs
- provides an appropriate mathematical background for students entering the workforce and/or undertaking further community and workplace training.

Content

The Mathematics Standard Year 11 course content comprises four Topics, with the Topics divided into Subtopics. The Mathematics Standard 1 Year 12 course content includes the same four Topics and the additional Topic of Networks. The Topics and Subtopics are:

Year 11

Topic: Algebra

- Formulae and Equations, Linear Relationships

Topic: Measurement

- Applications of Measurement, Working with Time

Topic: Financial Mathematics

- Money Matters, Topic: Statistical Analysis
- Data Analysis
- Relative Frequency and Probability

Year 12

Topic: Algebra

- Types of Relationships

Topic: Measurement

- Right-angled Triangles, Rates
- Scale Drawings

Topic: Financial Mathematics

- Investment, Depreciation and Loans

Topic: Statistical Analysis

- Further Statistical Analysis

Topic: Networks

- Networks and Paths

Mathematics Standard 2

Course No:

- 11236: Year 11 Mathematics Standard
- 15236 Year 12 Mathematics Standard 2.

2 units Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Prerequisites:

The Mathematics Standard 2 Year 11 course has been developed on the assumption that students have studied the content and achieved the outcomes of the NSW *Mathematics Years 7–10 Syllabus* and in particular, the content and outcomes of all substrands of Stage 5.1 and the following substrands of Stage 5.2:

- Area and surface area
- Financial mathematics
- Linear relationships
- Non-linear relationships
- Right-angled triangles (Trigonometry)
- Single variable data analysis
- Volume
- some content from Equations
- some content from Probability.

Exclusions:

Students may **not** study any other Stage 6 mathematics Year 11 course in conjunction with the Mathematics Standard Year 11 course, or any other Stage 6 mathematics Year 12 course in conjunction with the Mathematics Standard 2 Year 12 course.

Students who have followed the Mathematics Standard \diamond pathway in Year 11 are encouraged to study the Mathematics Standard 1 Year 12 course.

Course description

▪ The Mathematics Standard Year 11 course is a common course for all students studying the Mathematics Standard syllabus. In Year 12 students can elect to study either the Mathematics Standard 1 Year 12 course (Category B) or the Mathematics Standard 2 Year 12 course (Category A).

▪ All students studying the Mathematics Standard 2 course will sit for an HSC examination.

▪ All students studying the Mathematics Standard course in Stage 6 will have the opportunity to enhance their numeracy skills and capabilities. The content of the course aligns with Level 3 of the Australian Core Skills Framework.

The study of Mathematics Standard 2 in Stage 6:

- enables students to develop their knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities for students to consider various applications of mathematics in a broad range of contemporary contexts through the use of mathematical modelling and use these models to solve problems related to their present and future needs
- provides opportunities for students to develop an understanding of and skills in further aspects of mathematics for concurrent HSC studies
- provides an appropriate mathematical background for students entering the workforce or undertaking further tertiary training.

Content

The Mathematics Standard Year 11 course comprises of four Topics, with the Topics divided into Subtopics. The Mathematics Standard 2 Year 12 course content includes the same four Topics and the additional Topic of Networks. The Topics and Subtopics are:

Year 11

Topic: Algebra

- Formulae and Equations, Linear Relationships

Topic: Measurement

- Applications of Measurement, Working with Time

Topic: Financial Mathematics

- Money Matters

Topic: Statistical Analysis

- Data Analysis, Relative Frequency and Probability

Year 12

Topic: Algebra

- Types of Relationships

Topic: Measurement

- Non-right-angled Trigonometry, Rates and Ratios

Topic: Financial Mathematics

- Investments and Loans, Annuities

Topic: Statistical Analysis

- Bivariate Data Analysis, The Normal Distribution

Topic: Networks

- Network Concepts, Critical Path Analysis

Course: Mathematics Advanced

Course No:

- 11255 Year 11 Mathematics Advanced
- 15255 Year 12 Mathematics Advanced.

2 units Year 11 (Preliminary) Board Developed Course.

2 units Year 12 (HSC) Board Developed Course.

Prerequisites:

The Mathematics Advanced Year 11 course has been developed on the assumption that students have studied the content and achieved the outcomes of the NSW *Mathematics Years 7–10 Syllabus* and in particular, the content and outcomes of all substrands of Stage 5.1 and Stage 5.2, the following substrands of Stage 5.3:

- Algebraic techniques
- Surds and indices
- Equations
- Linear relationships
- Trigonometry and Pythagoras' theorem
- Single variable data analysis

and at least some of the content from the following substrands of Stage 5.3:

- Non-linear relationships
- Properties of Geometrical Shapes.

Exclusions:

Students may **not** study the Mathematics Advanced course in conjunction with the Mathematics Standard 1 or the Mathematics Standard 2 course.

Course Description

- The Mathematics Advanced course is a calculus based course focused on developing student awareness of mathematics as a unique and powerful way of viewing the world to investigate order, relation, pattern, uncertainty and generality.
- The Mathematics Extension 1 Year 11 course includes the Mathematics Advanced Year 11 course. The Mathematics Extension 1 Year 12 course includes the Mathematics Advanced Year 12 course.
- All students studying the Mathematics Advanced course will sit for an HSC examination.

The study of Mathematics Advanced in Stage 6:

- enables students to develop their knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities for students to consider various applications of mathematics in a broad range of contemporary contexts through the use of mathematical modelling and use these models to solve problems related to their present and future needs
- provides opportunities for students to develop ways of thinking in which problems are explored through observation, reflection and reasoning
- provides a basis for further studies in disciplines in which mathematics and the skills that constitute thinking mathematically have an important role
- provides an appropriate mathematical background for students whose future pathways may involve mathematics and its applications in a range of disciplines at the tertiary level.

Content

The Mathematics Advanced Year 11 course content is comprised of five Topics, with the Topics divided into Subtopics. The Mathematics Advanced Year 12 course content includes four of the same Topics and the Topic of Financial Mathematics in place of the Topic of Exponential and Logarithmic Functions. The Topics and Subtopics are:

Year 11

Topic: Functions

- Working with Functions

Topic: Trigonometric Functions

- Trigonometry and Measure of Angles, Trigonometric Functions and Identities

Topic: Calculus

- Introduction to Differentiation

Topic: Exponential and Logarithmic Functions

- Logarithms and Exponentials

Topic: Statistical Analysis

- Probability and Discrete Probability Distributions

Year 12

Topic: Functions

- Graphing Techniques

Topic: Trigonometric Functions

- Trigonometric Functions and Graphs

Topic: Calculus

- Differential Calculus, The Second Derivative
- Integral Calculus

Topic: Financial Mathematics, Modelling Financial Situations

Topic: Statistical Analysis

- Descriptive Statistics and Bivariate Data Analysis, Random Variables

Course: Mathematics Extension 1

Course No:

- 11250 Year 11 Mathematics Extension
 - 15250 Year 12 Mathematics Extension 1.
- 1 unit Year 11 (Preliminary) Board Developed Course.
1 unit Year 12 (HSC) Board Developed Course.

Prerequisites:

The Mathematics Extension 1 Year 11 course has been developed on the assumption that students have studied the content and achieved the outcomes of the NSW *Mathematics Years 7–10 Syllabus* and, in particular, the content and outcomes of all substrands of Stage 5.1, Stage 5.2 and Stage 5.3, including the optional substrands:

- Polynomials
- Logarithms
- Functions and Other Graphs
- Circle Geometry.

Exclusions:

Students may **not** study the Mathematics Extension 1 course in conjunction with the Mathematics Standard 1 or the Mathematics Standard 2 course.

Course Description

- The Mathematics Extension 1 Year 11 course includes the Mathematics Advanced Year 11 course. The Mathematics Extension 1 Year 12 course includes the Mathematics Advanced Year 12 course.
- The Mathematics Extension 2 Year 12 course includes the Mathematics Extension 1 Year 12 course, and therefore also the Mathematics Advanced Year 12 course.
- All students studying the Mathematics Extension 1 course will sit for an HSC examination.

The study of Mathematics Extension 1 in Stage 6:

- enables students to develop thorough knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities for students to develop rigorous mathematical arguments and proofs, and to use mathematical models extensively
- provides opportunities for students to develop their awareness of the interconnected nature of mathematics, its beauty and its functionality
- provides a basis for progression to further study in mathematics or related disciplines and in which mathematics has a vital role at a tertiary level
- provides an appropriate mathematical background for students whose future pathways may involve mathematics and its applications in such areas as science, engineering, finance and economics.

Content

The Mathematics Extension 1 Year 11 course content is comprised of four Topics, with the Topics divided into Subtopics. The Mathematics Extension 1 Year 12 course content includes the Topics Trigonometric Functions and Calculus continued from Year 11 and introduces three different Topics. The Topics and Subtopics are:

Year 11

Topic: Functions

- Further Work with Functions
- Polynomials

Topic: Trigonometric Functions

- Inverse Trigonometric Functions
- Further Trigonometric Identities

Topic: Calculus

- Rates of Change

Topic: Combinatorics

- Working with Combinatorics

Year 12

Topic: Proof

- Proof by Mathematical Induction

Topic: Vectors

- Introduction to Vectors

Topic: Trigonometric Functions

- Trigonometric Equations

Topic: Calculus

- Further Calculus Skills
- Applications of Calculus

Topic: Statistical Analysis

- The Binomial Distribution

Course: Mathematics Extension 2

Course No: 15260 Year 12 Mathematics Extension 2
1 unit Year 12 (HSC) Board Developed Course

Prerequisites:

The Mathematics Extension 2 Year 12 course has been developed on the assumption that students have studied the content and achieved the outcomes of the Mathematics Advanced Year 11 course and the Mathematics Extension 1 Year 11 course. The Mathematics Extension 2 Year 12 course has also been constructed on the assumption that students are concurrently studying the Mathematics Advanced course and the Mathematics Extension 1 Year 12 course.

Exclusions:

Students may **not** study the Mathematics Extension 2 course in conjunction with the Mathematics Standard 1 or the Mathematics Standard 2 course.

Course Description

- The Mathematics Extension 2 Year 12 course includes the Mathematics Extension 1 Year 12 course and the Mathematics Advanced Year 12 course.
- The Stage 6 Mathematics Advanced, Mathematics Extension 1 and Mathematics Extension 2 courses form a continuum.
- All students studying the Mathematics Extension 2 course will sit for an HSC examination.

The study of Mathematics Extension 2 in Stage 6:

- enables students to develop strong knowledge, understanding and skills in working mathematically and in communicating concisely and precisely
- provides opportunities to develop strong mathematical manipulative skills and a deep understanding of the fundamental ideas of algebra and calculus, as well as an awareness of mathematics as an activity with its own intrinsic value, involving invention, intuition and exploration
- provides opportunities at progressively higher levels for students to acquire knowledge, understanding and skills in relation to concepts within areas of mathematics that have applications in an increasing number of contexts
- provides a basis for progression to further study in mathematics or related disciplines and in which mathematics has a vital role at tertiary level
- provides an appropriate mathematical background for students whose future pathways will be founded in mathematics and its applications in such areas as science, engineering, finance and economics.

Content

The Mathematics Extension 2 course is comprised of five Topics, with the Topics divided into Subtopics. The Topics and Subtopics are:

Year 12

Topic: Proof

- The Nature of Proof
- Further Proof by Mathematical Induction

Topic: Vectors

- Further Work with Vectors

Topic: Complex Numbers

- Introduction to Complex Numbers
- Using Complex Numbers

Topic: Calculus

- Further Integration

Topic: Mechanics

- Applications of Calculus to Mechanics

Course: Biology

Course No:

- 11030 Year 11 Biology
- 15030 Year 12 Biology.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Course Description

The Year 11 course investigates cellular structure and provides a base for understanding the way in which multicellular organisms transport and absorb nutrients and carry out gas exchange. Exploring variations in the structures and functions of organisms provides an understanding of the effects of the environment on living things and how this leads to biodiversity. The Year 12 course investigates reproduction, inheritance patterns and the causes of genetic variation in both plants and animals. Applications of this knowledge in biotechnology and various genetic technologies are explored in the light of their uses in the treatment, prevention and control of infectious and non-infectious diseases.

Content

Year 11

The Year 11 course consists of four modules.

Module 1 Cells as the Basis of Life

Module 2 Organisation of Living Things

Module 3 Biological Diversity

Module 4 Ecosystem Dynamics

Year 12

The Year 12 course consists of four modules.

Module 5 Heredity

Module 6 Genetic Change

Module 7 Infectious Disease

Module 8 Non-infectious Disease and Disorders

Course Requirements

Students are provided with 15 hours of course time for depth studies in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts.

A depth study may be one investigation/activity or a series of investigations/activities. Depth studies may be included in one module or across several modules.

Practical investigations are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year.

Fieldwork is also mandated in Year 11 and is an integral part of the learning process.

Course: Chemistry

Course No:

- 11050 Year 11 Chemistry
- 15050 Year 12 Chemistry.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Course Description

The Year 11 course develops the knowledge, understanding and skills in relation to the properties and structures of matter, the types and drivers of chemical reactions and how we measure the quantities involved in these processes.

The Year 12 course builds on the concepts introduced in Year 11 by examining particular classes of chemicals, processes and a variety of chemical reactions which incorporate organic compounds and acid/base equilibrium reactions. The course challenges students to apply this knowledge to the investigation of a range of methods used in identifying and measuring quantities of chemicals which leads to an understanding of the structure, properties and trends of and between classes of chemicals.

Content

Year 11

The Year 11 course consists of four modules.

Module 1 Properties and Structure of Matter

Module 2 Introduction to Quantitative Chemistry

Module 3 Reactive Chemistry

Module 4 Drivers of Reactions

Year 12

The Year 12 course consists of four modules.

Module 5 Equilibrium and Acid Reactions

Module 6 Acid/base Reactions

Module 7 Organic Chemistry

Module 8 Applying Chemical Ideas

Course Requirements

Students are provided with 15 hours of course time for depth studies in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts.

A depth study may be one investigation/activity or a series of investigations/activities. Depth studies may be included in one module or across several modules.

Practical investigations are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year.

Course: Investigating Science

Course No:

- 11215 Year 11 Investigating Science
- 15215 Year 12 Investigating Science.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Note: The Investigating Science Stage 6 course may be studied as a stand-alone course or in combination with any other science course(s). Students studying Investigating Science as a stand-alone course may select to study Science Extension in Year 12.

Course Description

The Year 11 course focuses on the centrality of observation in initiating the scientific process and examines the human tendency to draw inferences and make generalisations from these observations. Students learn about the development and use of scientific models and the similarities and differences between scientific theories and laws.

The Year 12 course builds on the skills and concepts learnt in Year 11 with students conducting their own scientific investigations and communicating their findings in scientific reports. Students are provided with the opportunity to examine the interdependent relationship between science and technology and apply their knowledge, understanding and skills to scientifically examine a claim. The course concludes with students exploring the ethical, social, economic and political influences on science and scientific research in the modern world.

Content

Year 11

The Year 11 course consists of four modules.

Module 1 Cause and Effect – Observing

Module 2 Cause and Effect – Inferences and Generalisations

Module 3 Scientific Models

Module 4 Theories and Laws

Year 12

The Year 12 course consists of four modules.

Module 5 Scientific Investigations

Module 6 Technologies

Module 7 Fact or Fallacy?

Module 8 Science and Society

Course Requirements

Students are provided with 30 hours of course time for depth studies in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts.

A depth study may be one investigation/activity or a series of investigations/activities. Depth studies may be included in one module or across several modules.

Practical investigations are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year.

Course: Physics

Course No:

- 11310 Year 11 Physics
- 15330 Year 12 Physics.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Course Description

The Year 11 course develops student's knowledge, understanding and skills relevant to the study of motion, how we describe it and what causes it. The course also examines energy in its different forms and how we describe and measure electricity and magnetism and their interrelated effects.

The Year 12 course provides avenues for students to apply the concepts they were introduced to in Year 11 to motion in two dimensions, electromagnetism, theories of light, the atom and the Universe.

Content

Year 11

The Year 11 course consists of four modules.

Module 1 Kinematics

Module 2 Dynamics

Module 3 Waves and Thermodynamics

Module 4 Electricity and Magnetism

Year 12

The Year 12 course consists of four modules.

Module 5 Advanced Mechanics

Module 6 Electromagnetism

Module 7 The Nature of Light

Module 8 From the Universe to the Atom

Course Requirements

Students are provided with 15 hours of course time for depth studies in both Year 11 and Year 12. During this time students may undertake an investigation/activity that allows for the further development of one or more scientific concepts.

A depth study may be one investigation/activity or a series of investigations/activities. Depth studies may be included in one module or across several modules.

Practical investigations are an essential part of the Year 11 and Year 12 courses and must occupy a minimum of 35 hours of course time each year.

Course: HSC Ancient History

Course No:

- 11020 Year 11 Ancient History
- 15020 Year 12 Ancient History.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Course Description

The Year 11 course provides students with opportunities to develop and apply their understanding of methods and issues involved in the investigation of the ancient past. Students have the opportunity to engage in the study of a range of features, people, places, events and developments of the ancient world.

The Year 12 course provides students with opportunities to apply their understanding of archaeological and written sources and relevant issues in the investigation of the ancient past. Through a core study, students investigate the cities of Pompeii and Herculaneum, and explore issues relating to reconstruction and conservation of the past. They also study the key features and sources of an ancient society, personality and historical period.

Content

Year 11

The Year 11 course comprises three sections.

- Investigating Ancient History (60 indicative hours including 'The Nature of Ancient History' and 'Case Studies')
- Students undertake at least one option from 'The Nature of Ancient History', and at least two case studies.
- Features of Ancient Societies (40 indicative hours)
- Students study at least two ancient societies.
- Historical Investigation (20 indicative hours)

Historical concepts and skills are integrated with the studies undertaken in Year 11.

Year 12

The Year 12 course comprises four sections.

- Core Study: Cities of Vesuvius – Pompeii and Herculaneum (30 indicative hours)
- One 'Ancient Societies' topic (30 indicative hours)
- One 'Personalities in their Times' topic (30 indicative hours)
- One 'Historical Periods' topic (30 indicative hours)

Historical concepts and skills are integrated with the studies undertaken in Year 12.

Course Requirements

Year 11

In the Year 11 course, students undertake at least two case studies.

- One case study must be from Egypt, Greece, Rome or Celtic Europe, and
- One case study must be from Australia, Asia, the Near East or the Americas.

Year 12

The course requires study from at least two of the following areas:

- Egypt
- Near East
- China
- Greece
- Rome.

Course: HSC Modern History

Course No:

- 11270 Year 11 Modern History
- 15270 Year 12 Modern History.

2 units for Year 11 (Preliminary) and Year 12 (HSC).

Board Developed Course.

Exclusions: Nil

Course Description

The Year 11 course provides students with opportunities to develop and apply their understanding of methods and issues involved in the investigation of modern history. Students have the opportunity to engage in the study of a range of people, ideas, movements, events and developments that have shaped the modern world.

The Year 12 course provides students with opportunities to apply their understanding of sources and relevant issues in the investigation of the modern world. Through a core study, students investigate the nature of power and authority 1919–1946. They also study key features in the history of one nation, one study in peace and conflict and one study of change in the modern world.

Content

Year 11

The Year 11 course comprises three sections.

- Investigating Modern History (60 indicative hours including ‘The Nature of Modern History’ and ‘Case Studies’)
- Students undertake at least one option from ‘The Nature of Modern History’, and at least two case studies.
- Historical Investigation (20 indicative hours)
- The Shaping of the Modern World (40 indicative hours)
- At least one study from ‘The Shaping of the Modern World’ is to be undertaken.

Historical concepts and skills are integrated with the studies undertaken in Year 11.

Year 12

The Year 12 course comprises four sections.

- Core Study: Power and Authority in the Modern World (Germany) 1919–1946 (30 indicative hours)
- One ‘National Studies’ topic (30 indicative hours)
- One ‘Peace and Conflict’ topic (30 indicative hours)
- One ‘Change in the Modern World’ topic (30 indicative hours)

Historical concepts and skills are integrated with the studies undertaken in Year 12.

Course Requirements

Year 11

In the Year 11 course, students undertake at least two case studies.

- One case study must be from Europe, North America or Australia, and
- One case study must be from Asia, the Pacific, Africa, the Middle East or Central/South America.

Year 12

Students are required to study at least one non-European/Western topic, for example: India 1942–1984, Conflict in the Pacific 1937–1951, The Cultural Revolution to Tiananmen Square 1966–1989.

Course: HSC History Extension

Course No: 15280 Year 12 History Extension.

1 unit for Year 12 (HSC).

Board Developed Course.

Prerequisites:

Year 11 Ancient History or Modern History is a prerequisite for entry into Year 12 History Extension.

Year 12 Ancient History or Modern History is a co-requisite for Year 12 History Extension.

Exclusions: Nil

Course Description

History Extension provides students with opportunities to examine the way history is constructed and the role of historians. Students investigate the nature of history and changing approaches to its construction through sampling the works of various writers, historians and others involved in the practice of history. Students apply their understanding to undertake an individual investigative project, focusing on an area of changing historical interpretation.

Content

The course comprises two sections.

Constructing History (Minimum 40 indicative hours)

- Key Questions
- Who are historians?
- What are the purposes of history?
- How has history been constructed, recorded and presented over time?
- Why have approaches to history changed over time?
- Case Studies
- Students develop their understanding of significant historiographical ideas and methodologies by exploring one case study, with reference to three identified areas of debate and the key questions.

History Project (Maximum 20 indicative hours)

- Students will undertake an individual investigative project, focusing on an area of changing historical interpretation.

Course Requirements

The course requires students to undertake:

- one case study
- the development of one History Project.

Course: Business Studies

Course No: 15040

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description

Business activity is a feature of everyone's life. The Business Studies syllabus encompasses the theoretical and practical aspects of business in ways students will encounter throughout their lives. It offers learning from the planning of a small business to the management of operations, marketing, finance and human resource in large businesses. Contemporary business issues and case studies are embedded in the course to provide a stimulating and relevant framework for students to apply to problems encountered in the business environment. Business Studies fosters intellectual, social and moral development by assisting students to think critically about the role of business and its ethical responsibilities to society.

Preliminary Course

- Nature of business (20%) – the role and nature of business
- Business management (40%) – the nature and responsibilities of management
- Business planning (40%) – establishing and planning a small to medium enterprise

HSC Course

- Operations (25%) – strategies for effective operations management
- Marketing (25%) – development and implementation of successful marketing strategies
- Finance (25%) – financial information in the planning and management of business
- Human resources (25%) – human resource management and business performance

Course: Economics

Course No: 15110

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description

Economics provides understanding for students about many aspects of the economy and its operation that are frequently reported in the media. It investigates issues such as why unemployment or inflation rates change and how these changes will impact on individuals in society. Economics develops students' knowledge and understanding of the operation of the global and Australian economy. It develops the analytical, problem-solving and communication skills of students. There is a strong emphasis on the problems and issues in a contemporary Australian economic context within the course.

Main Topics Covered

Preliminary Course

- Introduction to Economics – the nature of economics and the operation of an economy
- Consumers and Business – the role of consumers and business in the economy
- Markets – the role of markets, demand, supply and competition
- Labour Markets – the workforce and role of labour in the economy
- Financial Markets – the financial market in Australia including the share market
- Government in the Economy – the role of government in the Australian economy.

HSC Course

- The Global Economy – Features of the global economy and globalisation
- Australia's Place in the Global Economy – Australia's trade and finance
- Economic Issues – issues including growth, unemployment, inflation, wealth and management.
- Economic Policies and Management – the range of policies to manage the economy.

Course: Legal Studies

Course No: 15220

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description

The Preliminary course develops students' knowledge and understanding of the nature and functions of law and law-making, the development of Australian and international legal systems, the Australian constitution and law reform. It examines an individual's rights and responsibilities, how disputes are resolved and examines a contemporary issue concerning the individual and technology. Students have the opportunity to investigate issues that illustrate how the law operates in practice. This is achieved by investigating, analysing and synthesising legal information and investigating legal issues from a variety of perspectives.

The HSC course investigates the key areas of law, justice and human rights through a variety of focus studies which consider how changes in societies influence law reform.

Preliminary Course

- Part I – The Legal System (40% of course time)
- Part II – The Individual and the Law (30% of course time)
- Part III – The Law in Practice (30% of course time)

The Law in Practice unit is designed to provide opportunities for students to deepen their understanding of the principles of law covered in the first sections of the course. This section may be integrated with Part I and Part II.

HSC Course

- Core Part I: Crime (30% of course time)
- Core Part II: Human Rights (20% of course time)
- Part III: Two options (50% of course time)

Two options are chosen from:

- Consumers
- Global environment and protection
- Family
- Indigenous peoples
- Shelter
- Workplace
- World order.

Each topic's themes and challenges should be integrated into the study of the topic.

Particular Course Requirements - No special requirements

Course: Music 1

Course No:

- 11280 Preliminary Course
 - 15290 HSC Course
- 2 units for each of Preliminary and HSC
Board Developed Course

Exclusions: Music 2 and Music Extension; Projects developed for assessment in one subject are not to be used either in full or in part for assessment in any other subject.

Preliminary Course

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

Students study three topics in the Preliminary course. Topics are chosen from a list of 21 topics which covers a broad range of styles, periods and genres.

While the course builds on the Stages 4 and 5 Music course, Music 1 provides an alternative course of study to Music 2. The curriculum structure is adaptable enough to meet the needs and interests of students with varying degrees of prior formal and informal learning in music and caters for students with less experience in Music.

HSC Course

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

Students study three topics in the HSC course which are different from those studied in the Preliminary course or two topics which are different from those studied in the Preliminary course and one topic from the Preliminary course in greater depth exploring new repertoire and including a comparative study. Topics are chosen from a list of 21 topics which covers a broad range of styles, periods and genres.

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.

Particular Course Requirements

HSC course

Students selecting Music 1 are required to keep a portfolio of the development of each of the components Core Composition and Elective Composition.

Course: Visual Arts

Course No:

- 11380 Preliminary Course
 - 15400 HSC Course
- 2 units for each of Preliminary and HSC
Board Developed Course

Exclusions: Projects developed for assessment in one subject are not to be used either in full or in part for assessment in any other subject.

Preliminary Course

Visual Arts involves students in artmaking, art criticism and art history. Students critically and historically investigate artworks, critics, historians and artists from Australia as well as those from other cultures, traditions and times.

The Preliminary course is broadly focused, while the HSC course provides for deeper and more complex investigations.

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, artworks, the world and audiences in the artworld
- the different ways the visual arts may be interpreted 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.

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

HSC Course

Visual Arts involves students in artmaking, art criticism and art history. Students develop their own artworks, culminating in a 'body of work' in the HSC course. Students critically and historically investigate artworks, critics, historians and artists from Australia as well as those from other cultures, traditions and times.

HSC Course learning opportunities focus on:

- how students may develop their practice in artmaking, art criticism, and art history
- how students may develop their own informed points of view in increasingly independent ways and use different interpretive frameworks in their investigations
- how students may learn about the relationships between artists, artworks, the world and audiences within the artworld and apply these to their own investigations
- how students may further develop meaning and focus in their work.

Particular Course Requirements

Preliminary Course:

- Artworks in at least two expressive forms and use of a process diary
- a broad investigation of ideas in art making, art criticism and art history.

HSC Course:

- development of a body of work and use of a process diary
- a minimum of five Case Studies (4–10 hours each)
- deeper and more complex investigations in art making, art criticism and art history.

Course: Design and Technology

Course No: 15080

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description

The Preliminary course involves the study of both designing and producing. This is explored through areas such as design theory and practice, design processes, environmental and social issues, communication, research, technologies, and the manipulation of materials, tools and techniques. The course involves hands-on practical activities which develop knowledge and skills in designing and producing. The Preliminary course includes the completion of at least two design projects. These projects involve the design, production and evaluation of a product, system or environment and includes evidence of the design process recorded in a design folio. The design folio can take a variety of different forms.

The HSC course applies the knowledge and understanding of designing and producing from the preliminary course. It involves the development and realisation of a Major Design Project, a case study of an innovation, along with the study of innovation and emerging technologies. The study of the course content is integrated with the development of a Major Design Project, worth 60% of the HSC mark. This project requires students to select and apply appropriate design, production and evaluation skills to a product, system or environment that satisfies an identified need or opportunity. The case study of an innovation requires students to identify the factors underlying the success of the innovation selected, analyse associated ethical issues and discuss its impact on Australian society.

Main Topics Covered

Preliminary Course

Involves both theory and practical work in designing and producing. This includes the study of design theory and practice, design processes, factors affecting design and producing, design and production processes, technologies in industrial and commercial settings, environmental and social issues, creativity, collaborative design, project analysis, marketing and research, management, using resources, communication, manufacturing and production, computer-based technologies, occupational health and safety, evaluation, and manipulation of materials, tools and techniques.

HSC Course

Involves the study of innovation and emerging technologies, including a case study (20%) of an innovation and the study of designing and producing including a Major Design Project. The project folio addresses three key areas: project proposal and project management, project development and realisation, and project evaluation.

Particular Course Requirements

In the Preliminary course, students must participate in hands-on practical activities and undertake a minimum of two design projects. The projects will develop skills and knowledge to be further developed in the HSC course. Students will develop their knowledge of the activities within industrial and commercial settings which support design and technology and relate these processes to the processes used in their own designing and producing. Each project will place emphasis on the development of different skills and knowledge in designing and producing. This is communicated in a variety of forms, but students should be encouraged to communicate their design ideas using a range of appropriate media.

In the HSC course the activities of designing and producing that were studied in the Preliminary course are synthesised and applied. This culminates in the development and realisation of a Major Design Project and a case study of an innovation. Students should select and use the wide range of skills and knowledge developed in the Preliminary course, appropriate to their selected project. They must also relate the techniques and technologies used in industrial and commercial settings to those used in the development of design projects.

Course: Engineering Studies

Course No: 15120

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description:

Both Preliminary and HSC courses offer students knowledge, understanding and skills in aspects of engineering that include communication, engineering mechanics/hydraulics, engineering materials, historical/societal influences, engineering electricity/electronics, and the scope of the profession. Students study engineering by investigating a range of applications and fields of engineering.

Main Topics Covered

Preliminary Course

Students undertake the study of 4 compulsory modules:

- three application modules based on engineering concepts and impacts through the study of engineering products. Engineering concepts and impacts are studied in each of the following categories: engineering fundamentals, engineering products and braking systems
- one focus module relating to the field of Biomedical engineering.

HSC Course

Students undertake the study of 4 compulsory modules:

- two application modules relating to the fields of Civil structures and Personal and public transport
- two focus modules relating to the fields of Aeronautical Engineering and Telecommunications Engineering.

Particular Course Requirements

Engineering Report

Preliminary Course

Students are required to produce a component of an engineering report in Engineering application module 3, Braking systems, and then a complete engineering report in Engineering focus module 4, Biomedical engineering.

HSC Course

Students are required to produce **one** engineering report from either of the two engineering application modules, and **one** from either of the two engineering focus modules.

One engineering report from the Preliminary course and one engineering report from the HSC course must be the result of collaborative work, reflecting the importance of teamwork for successful engineering projects.

Course: Industrial Technology – Timber Products & Furniture Technologies

Course No: 15200

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Some Industry Focus areas with similar VET Curriculum Framework streams and Content Endorsed Courses

Course Description

Industrial Technology at Stage 6 will develop a student's knowledge and understanding of a selected industry and its related technologies highlighting the importance of design, management and production through practical experiences.

Industrial Technology Stage 6 consists of project work and an industry study that will develop a broad range of skills and knowledge related to the focus area chosen for the course. The Focus Area include Timber Products and Furniture Technologies.

Main Topics Covered

Preliminary Course

The following sections are taught in relation to the relevant focus area:

- Industry Study – structural, technical, environmental and sociological factors, personnel issues, Occupational Health and Safety (15%)
- Design – elements and principles, types of design, quality, influences affecting design (10%)
- Management and Communication – development of practical projects; research, analysis and evaluation; skills in managing a project and developing and presenting a management folio; computer based technologies (20%)
- Production – display a range of skills through the construction of a number of projects (40%)
- Industry Related Manufacturing Technology – understanding of a range of materials, processes, tools and equipment, machinery and technologies (15%)

HSC Course

The following sections are taught in relation to the relevant focus area through the development of a Major Project (60%) and a study of the relevant industry:

- Industry Study (15%)
- Major Project (60%)
- Design, Management and Communication
- Production
- Industry Related Manufacturing Technology (25%)

Particular Course Requirements

In the Preliminary course, students must design, develop and construct a number of projects. Each project will include a management folio. Each project may emphasise different areas of the preliminary course content. Students also undertake the study of an individual business within a focus area industry.

In the HSC course, students design, develop and construct a Major Project with a management folio. They will also undertake a study of the overall industry related to the specific focus area industry.

Course: Information Processes and Technology

Course No: 15210

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Computing Applications CEC

Course Description

Information Processes and Technology is the study of information-based systems. It focuses on information processes performed by these systems and the information technology that allows them to take place. Social, ethical and non-computer procedures resulting from the processes are considered. Different types of information systems are studied. Through project work, students will create their own information system to meet an identified need.

Main Topics Covered

Preliminary Course

- Introduction to Information Skills and Systems (20%)
- Tools for Information Processes (50%)
- Developing Information Systems (30%)

HSC Course

- Project Management (20%)
- Information Systems and Databases (20%)
- Communication Systems (20%)
- Option Strands (40%) – Students will select TWO of the following options: Transaction Processing Systems; Decision Support Systems; Automated Manufacturing Systems; Multimedia Systems.

Particular Course Requirements

There is no prerequisite study for the 2 unit Preliminary course. Completion of the 2 unit Preliminary course is a prerequisite to the study of the 2 unit HSC course.

The percentage values in each course refer to indicative course time. A minimum of 40% course time is to be devoted to the integration of content into project work in both Preliminary and HSC courses. It is also expected that a significant proportion of time be devoted to integrated practical activities.

Course: Personal Development, Health and Physical Education

Course No: 15320

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Nil

Course Description

The Preliminary course examines a range of areas that underpin health and physical activity. This includes how people think about health and physical activity, the management of personal health and the basis for how the body moves. Students have the opportunity to select from a range of practical options in areas such as first aid, outdoor recreation, composing and performing, and fitness choices.

In the HSC course, students focus on major issues related to Australia's health status. They also look at factors that affect physical performance. They undertake optional study from a range of choices. This includes investigating the health of young people or of groups experiencing health inequities. In other options, students focus on improved performance and safe participation by learning about advanced approaches to training or sports medicine concepts. There is also an opportunity to think critically about the factors that impact on sport and physical activity in Australian society.

Preliminary Course

Core Topics (60%)

- Better Health for Individuals
- The Body in Motion

Optional Component (40%)

Students select **two** of the following options:

- First Aid
- Composition and Performance
- Fitness Choices
- Outdoor Recreation

HSC Course

Core Topics (60%)

- Health Priorities in Australia
- Factors Affecting Performance

Optional Component (40%)

Students select two of the following options:

- The Health of Young People
- Sport and Physical Activity in Australian Society
- Sports Medicine
- Improving Performance
- Equity and Health

Particular Course Requirements

In addition to core studies, students select **two** options in each of the Preliminary and HSC courses.

Course: Studies of Religion I

Course No: 15370

1 unit for each of Preliminary and HSC

Board Developed Course

Exclusions: Studies of Religion II

Course Description

Studies of Religion I promotes an understanding and critical awareness of the nature and significance of religion and the influence of beliefs systems and religious traditions on individuals and within society.

Preliminary Course

- Nature of Religion and Beliefs
- The nature of religion and beliefs including Australian Aboriginal beliefs and spiritualities, as a distinctive response to the human search for meaning in life.
- Two Religious Traditions Studies from:
 - Buddhism, Christianity, Hinduism, Islam, Judaism
- Origins
- Principal beliefs
- Sacred texts and writings
- Core ethical teachings
- Personal devotion/expression of faith/observance.

HSC Course

- Religion and Belief Systems in Australia post-1945
- Religious expression in Australia's multi-cultural and multi-faith society since 1945, including an appreciation of Aboriginal spiritualities and their contribution to an understanding of religious beliefs and religious expression in Australia today.
- Two Religious Tradition Depth Studies from:
 - Buddhism, Christianity, Hinduism, Islam, Judaism
- Significant people and ideas
- Ethical teachings in the religious tradition about bioethics or environmental ethics or sexual ethics
- Significant practices in the life of adherents.

Course: Studies of Religion II

Course No: 15380

2 units for each of Preliminary and HSC

Board Developed Course

Exclusions: Studies of Religion I

Course Description

Studies of Religion II promotes an understanding and critical awareness of the nature and significance of religion and the influence of beliefs systems and religious traditions on individuals and within society.

Preliminary Course

- Nature of Religion and Beliefs
- The nature of religion and beliefs including Australian Aboriginal beliefs and spiritualities, as a distinctive response to the human search for meaning in life.
- Three Religious Traditions Studies from:
 - Buddhism, Christianity, Hinduism, Islam, Judaism
- Origins
- Principal beliefs
- Sacred texts and writings
- Core ethical teachings
- Personal devotion/expression of faith/observance.
- Religions of Ancient Origin
- The response to the human search for ultimate meaning in two religions of ancient origin from:
 - Aztec or Inca or Mayan
 - Celtic
 - Nordic
 - Shinto
 - Taoism
 - an Indigenous religion from outside Australia
- Religion in Australia pre-1945
- The arrival, establishment and development of religious traditions in Australia prior to 1945.

HSC Course

- Religion and Belief Systems in Australia post-1945
- Religious expression in Australia's multi-cultural and multi-faith society since 1945, including an appreciation of Aboriginal spiritualities and their contribution to an understanding of religious beliefs and religious expression in Australia today.
- Three Religious Tradition Depth Studies from:
 - Buddhism, Christianity, Hinduism, Islam, Judaism
- Significant people and ideas
- A religious traditions ethical teachings about bioethics or environmental ethics or sexual ethics
- Significant practices in the life of adherents.
- Religion and Peace
- The distinctive response of religious traditions to the issue of peace.
- Religion and Non-Religion
- The human search for meaning through new religious expression, Non-religious worldviews and the difference between Religious and Non-Religious worldviews.

Course: Sport, Lifestyle and Recreation Studies

Content Endorsed Course

Exclusions: Students studying Board Developed PDHPE must not study CEC modules which duplicate PDHPE modules. Students will learn about the importance of a healthy and active lifestyle and recognise the need to be responsible and informed decision-makers.

This course enables students to further develop their understanding of and competence in a range of sport and recreational pursuits. They are encouraged to establish a lifelong commitment to being physically active and to achieving movement potential.

Through the course students will develop:

- **knowledge and understanding of the factors that influence health and participation in physical activity**
- **knowledge and understanding of the principles that impact on quality of performance**
- **an ability to analyse and implement strategies to promote health, activity and enhanced performance**
- **a capacity to influence the participation and performance of self and others.**

The course provides the opportunity to specialise in areas of expertise or interest through optional modules such as:

- **Aquatics**
- **Athletics**
- **First Aid**
- **Fitness**
- **Specific Sports**
- **Gymnastics**
- **Outdoor Recreation**
- **Sports Administration**
- **Coaching**
- **Social Perspectives of Sport**
- **Healthy Lifestyle.**

Course: Work Studies

Exclusions: Nil

Structure of the course

The *Work Studies CEC* syllabus is available for study as a 1-unit 60-hour course; a 1-unit 120-hour course; a 2-unit 120-hour course; or a 2-unit 240-hour course.

The Work Studies CEC syllabus is available for study as a 1-unit 60-hour course; a 1-unit 120-hour course; a 2-unit 120-hour course; or a 2-unit 240-hour course.

Core – My Working Life

Modules – There are 11 elective modules which explore issues about work and work-related skills. Modules are studied for 15 to 30 hours.

Nature of the course

Work in all its forms – paid and unpaid – plays a central role in our lives. Technological, social and economic factors are rapidly changing the nature of work, the traditional patterns of work organisation and how individuals engage in work. The successful transition of students from school to the workforce and further education and training is essential for individuals and for society. Individuals will need to be flexible and responsive to change along their career pathway. Opportunities for workers to change jobs, develop new skills and to obtain new experiences will be part of the future world of work.

The *Work Studies CEC* syllabus is designed to assist students in their transition from school to work. It develops knowledge and understanding of the issues faced by students in the transition to work and the skills needed for effective career planning and performance of tasks in the work environment. Integral to the *Work Studies* syllabus is a focus on the development of essential workplace skills. They are central to the core module and each of the elective modules. Students have an opportunity to practise these skills in appropriate work contexts.

The Work Studies course will assist students to:

- recognise the links between education, training, work and lifestyle, and to recognise the economic and social factors that affect work opportunities
- develop an understanding of the changing nature of work and the implications for individuals and society
- undertake work placement to allow for the development of specific job-related skills
- acquire general work-related knowledge, skills and attitudes, transferable across different occupations
- develop their skills in accessing work-related information, presenting themselves to potential employers, and functioning effectively in the workplace.

Course: Catholic Studies

1 unit for each of Preliminary and HSC

Board Endorsed Courses

Exclusions: Studies of Religion I & II

Course Description

Catholic Studies provides students with an opportunity to foster a deeper understanding of the teachings of the Gospel, the nature of Christianity and the way Catholics are called to live their lives within the Catholic tradition.

Preliminary Course

- Search for meaning
- Jesus of history; Christ of faith
- A Christian vision of the world

HSC Course

- Religion in Australia
- Spiritual pathways
- Living texts
- Christian vocation, work and leisure

Course: Photography, Video and Digital Imaging

Content Endorsed Course

Exclusions: Projects developed for assessment in one subject are not to be used either in full or in part for assessment in any other subject.

Course Description

Photography, Video and Digital Imaging offers students the opportunity to explore contemporary artistic practices that make use of photography, video and digital imaging. These fields of artistic practice resonate within students' experience and understanding of the world and are highly relevant to contemporary ways of interpreting the world. The course offers opportunities for investigation of one or more of these fields and develops students' understanding and skills, which contribute to an informed critical practice.

The course is designed to enable students to gain an increasing accomplishment and independence in their representation of ideas in the fields of photography and/or video and/or digital imaging and understand and value how these fields of practice invite different interpretations and explanations.

Students will develop knowledge, skills and understanding through the making of photographs, and/or videos and/or digital images that lead to and demonstrate conceptual and technical accomplishment. They will also develop knowledge, skills and understanding that lead to increasingly accomplished critical and historical investigations of photography and/or video and/or digital imaging.

Main Topics Covered

Modules may be selected in any of the three broad fields of:

- Wet Photography
- Video
- Digital Imaging.

Modules include:

- Introduction to the Field
- Developing a Point of View
- Traditions, Conventions, Styles and Genres
- Manipulated Forms
- The Arranged Image
- Temporal Accounts.

An Occupational Health and Safety Module is mandatory. The additional module Individual/Collaborative Project extends students' learning experiences and may reflect students' increasing interests and desire to specialise in one or more of these fields or explore the connections further between the fields.

Particular Course requirements

Students are required to keep a diary throughout the course.