



ILLAWARRA  
CHRISTIAN  
SCHOOL

# SENIOR SECONDARY HANDBOOK 2018

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Unless stated otherwise, courses are worth two units.  
(equivalent to 120 timetabled hours of study).

## **Introduction to the Senior Secondary Handbook**

The purpose of this Handbook is to provide students and their parents with a brief outline of the subjects from which students may choose for Years 11 and 12 commencing Term 1.

These outlines are not designed to provide all of the subject specific information that may be required to make informed elective choices. They are, however, designed to provide general information concerning course requirements, pre-requisite subjects where they apply, subject applications, etc.

Years 11 and 12 are extremely valuable years of study and personal growth for students. Some of the main reasons for choosing to remain at school for Years 11 and 12 include -

- Obtaining a sufficiently high Australian Tertiary Admission Rank (ATAR) to gain access to tertiary institutions.
- Developing further study, work and subject specific skills prior to entering the work force or tertiary education.
- Providing an additional two years of maturation within a nurturing Christian environment prior to entering the work force, or further study.
- Building on past understanding of the creation from a distinctively Christian perspective. Due to their greater degree of maturity, senior students are frequently able to develop significantly during these two years.
- Developing/refining skills of leadership that can have application within the family, church, work place, or community.
- Increasing the range of employment options available compared with students who have not obtained an HSC.

The two years of senior studies have the potential to be challenging and highly beneficial to students as they seek to further develop their God given abilities and gain a deeper understanding of how they may use their lives most effectively in God's service.

## **Pattern of Study - Senior Secondary**

In Year 11 and 12 students complete two separate but related courses: the Preliminary Course and the Higher School Certificate Course. The Preliminary Course is essential preparation for the HSC Course and much of the content covered and skills developed are assumed knowledge for the HSC Course. The Preliminary Course is undertaken in terms 1 – 3 of Year 11 and the HSC course is undertaken in term 4 of Year 11 and the first three terms of Year 12.

In Year 11 students must complete a minimum of 12 units and four subjects, including English. In Year 12 students must complete a minimum of 10 units, including English, in order to be eligible for the Higher School Certificate.

### **Australian Tertiary Admission Rank (ATAR)**

The Australian Tertiary Admission Rank (ATAR) is a rank between 0.00 and 99 with increments of 0.05. It provides a measure of overall academic achievement in the NSW HSC that assists institutions to rank applicants for tertiary selection. It is calculated by the institutions and released by UAC.

To be eligible for an ATAR you must satisfactorily complete at least 10 units (including at least two units of English) of ATAR courses for the HSC.

Your ATAR is based on the aggregate of scaled marks in 10 units of ATAR courses comprising:

- your best two units of English; and
- your best eight units from the remaining units, subject to the provision that no more than two units of Category B courses be included.
- you must satisfactorily complete English;
- you may accumulate courses over a period of no more than five years;
- if you repeat a course, only the last satisfactory attempt will be used in the calculation of your ATAR;

and

- if you enrol in a repeat course and subsequently withdraw, either officially by advising your principal or the Board of Studies, or unofficially by non-attendance at the appropriate examination, you will be considered as not having completed the course and it will be regarded as a non-satisfactory attempt. In this case the mark from your previous satisfactory attempt in the course will be available for inclusion in your ATAR.

### **Category 'A' and Category 'B' courses**

ATAR courses that have formal examinations are classified by the universities as Category A or Category B courses. The universities prefer to use the categorisation method to determine entry to tertiary courses and have tried to keep formal prerequisites to a minimum.

The criteria for Category A courses are:

- academic rigour
- depth of knowledge
- the degree to which the course contributes to assumed knowledge for tertiary studies
- the coherence with other courses included in the ATAR calculations.

Category B courses are those where, while the level of cognitive and performance demands are not regarded as satisfactory in themselves, their contribution to a selection index is regarded as adequate if the other courses included in the aggregate are more demanding.

At present there are few Category B courses. The rules allow you to include up to two units of Category B courses in the calculation of your ATAR.

## Procedure for Course Selection



The courses outlined in this Handbook represent those which are most likely to be required by students at ICS, those which offer a helpful range of academic, practical and creative options, and which the school is able to staff and resource, should they be needed.

Not all of them will be selected by a particular class and the following procedure allows the students and their families to inform the school as to which courses and combinations of courses will best meet their needs. The final number of courses offered is also somewhat dependent on the size of the class.

The procedure is quite similar to that used to select Junior elective subjects. The full list of potential courses is examined by the students and parents, and they are asked to indicate their order of preference for these courses.

Those which are least required are deleted from the list and students are again consulted as to their preferences. From this information, courses are organised onto lines in patterns which will allow the majority of students to select their most preferred options.

Clearly such a system is not able to meet the first preferences of every individual, but it is a very satisfactory method of ensuring that the courses and combinations of courses are tailored as closely as possible to the needs and gifts of a particular class. Students should therefore not make any assumptions about these matters based on previous Year 11 classes; each new class is addressed separately and their individual needs determine the courses which will be offered.

Mr Simon Lainson

Principal

## **Teachers to Consult about Preliminary and HSC Courses**

If you need to discuss any of the courses outlined in the handbook in more detail, the following teachers would be able to assist.

Please feel free to contact them at school to arrange a suitable time.

- English Mrs Ellis
- Mathematics Mr Dombkins
- Biology Mr Larson
- Chemistry Mr Larson
- Physics Mr Lee
- Geography Mrs Spreitzer & Mr Hewitt
- Legal Studies Mrs Spreitzer & Mr Williams
- Ancient History Mrs M Story & Mrs Engel
- Modern History Mrs Engel & Mr Russell
- Business Studies Mr Williams
- Economics Mr Williams
- PDHPE Mrs Harvey & Mrs Kime
- CAF (Community & Family Studies) Mr Williams
- Software Design and Development Mr Spreitzer
- Design and Technology Mr Whitelock
- Food Technology Mrs Hewitt
- Textiles and Design Mrs Whitelock
- Industrial Technology - Multimedia Mr Spreitzer
- Engineering Studies Mr Lee
- French Mrs Williams
- Music Mrs Joyce
- Drama Mrs Lainson
- Visual Arts Mrs Dodd & Mrs Dunn
- Biblical Studies Mrs Dunn & Mrs Engel

# English - Standard

## **Course Description**

In their study of Standard English, students continue to develop their creative and critical skills and cultural understanding. The course provides diverse approaches to texts so that students may become flexible and critical thinkers, capable of appreciating the variety of cultural heritages and differences that make up Australian society. They further develop skills in literacy, and independent, collaborative and reflective learning.

## **Main Topics Covered**

### **Preliminary Course**

The course has three sections:

1. Common module - Reading to Write: Transition to Senior English
2. Module A: Contemporary Possibilities
3. Module B: Close Study of Literature

### **HSC Course**

The course has four sections:

1. Common module - Texts and Human Experiences
2. Module A: Language, Identity and Culture
3. Module B: Close Study of Literature
4. Module C: The Craft of Writing

### **Particular Course Requirements**

In the Preliminary English (Standard) course students are required to:

- Study one complex multimodal or digital text in Module A
- Study one substantial literary print text in Module B (prose fiction, drama or poetry)
- Explore a range of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts.
- Read widely to support their study

The HSC English (Standard) course requires:

- the close study of three types of prescribed texts, one drawn from each of: prose fiction or print nonfiction; poetry or drama; and film or media.

### **Selection Factors**

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.

### **Benefits and Application**

This course will be of practical benefit in any future area of study as it enables the student to understand and respond to all forms of communication, and to express thoughts and ideas clearly and articulately.

It provides the opportunity to consider and evaluate a variety of different worldviews from a Christian perspective and to develop gifts such as creative writing skills and public speaking which are of personal value and also form a basis for many ministry and career options.

# English - Advanced

## **Course Description**

In the English Advanced course, students explore challenging texts to investigate complex and evocative ideas, to evaluate, emulate and employ powerful, creative and sophisticated ways to use language to make meaning, and to find enjoyment in literature.

## **Main topics covered**

### **Preliminary Course**

The course has three sections:

1. Common module - Reading to Write
2. Module A: Narratives that Shape our World
3. Module B: Critical Study of Literature

### **HSC Course**

The course has four sections:

1. Common module - Texts and Human Experiences
2. Module A: Textual Conversations
3. Module B: Critical Study of Literature
4. Module C: The Craft of Writing

## **Particular Course Requirements**

In the Preliminary English (Advanced) course, students are required to:

- Explore a range of texts drawn from prose fiction, drama, poetry, nonfiction, film, media and digital texts.
- Read widely to support their study.

The HSC English (Advanced) course requires:

- The close study of four types of prescribed texts, one drawn from each of the following categories: Shakespearean drama; prose fiction or print nonfiction; and poetry or drama.
- The remaining text may be film, media or digital text or may be selected from one of the categories above.

## **Selection Factors**

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 study challenging written, spoken, visual, multimodal and digital texts that represent and reflect a changing global world.

Students further develop skills in independent, collaborative and reflective learning. Such skills form the basis of sound practices of investigation and analysis required for adult life, including the world of work, as well as post-school training and education.

## **Benefits and Applications**

Students undertaking this course will be able to deepen their appreciation of the richness of English literature as they make detailed examinations of various novels, plays and poets. They will refine their critical and evaluative skills and gain further experience in thinking Christianly about life issues.

# English - Extension 1 & 2

## Course Description

**English Extension** 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. 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.

The English Extension 2 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.

## Main Topics Covered

### **Preliminary Extension Course**

The course has one mandatory section and a related research project.

**Module:** Texts, Culture and Value

Teachers prescribe ONE text from the past and its manifestations in one or more recent cultures.

Students select ONE text and its manifestations in one or more recent cultures for their independent project.

### **HSC Extension Course 1**

The course has one common module - Literary Worlds, and one elective option.

Three texts must be selected from a prescribed text list, including two extended print texts.

### **HSC Extension Course 2**

The course requires students to submit a Major Work and a reflection statement.

## **Selection Factors**

Extension 1 is designed for Advanced English students with an interest in literature and a desire to pursue specialised study of English.

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. This course is also designed for Advanced English students who are independent learners with an interest in literature and a desire to pursue specialised study of English.

## **Benefits and Applications**

Students are provided with the opportunity to pursue areas of interest with increased independence. Through extended engagement in investigations and compositions, students develop to a high level their critical, evaluative and creative skills. They develop an increased awareness of the world in which they live and their ability to consider it from a Christian perspective.

# Mathematics - Standard 1 & 2

## **Course Description**

The Mathematics Standard courses are focused on enabling students to use mathematics effectively, efficiently and critically to make informed decisions in their daily lives. They provide students with the opportunities 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 subjects.

## **Topics Covered**

### **Year 11 (Standard 1 & 2)\***

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

### **Year 12 (Standard 1 & 2)\*\***

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

\*Where necessary, and depending on available resources, alternate approaches to Mathematics Standard in Year 11 are provided to address material essential for Mathematics Standard 1 in Year 12.

\*\*Concepts studied within each topic in Year 12 Mathematics Standard 2 are demanding than concepts within the equivalent topics in Mathematics Standard 1.

## **Selection Factors**

The outcomes and content in the Stage 6 Mathematics Standard syllabus are written with the assumption that students studying this course will have engaged with all substrands of Stage 5.1 and with the following substrands of Stage 5.2 - Financial mathematics, Linear relationships, Non-linear relationships, Right-angled triangles (Trigonometry), Single variable data analysis and Probability. Consequently, content in the NSW Mathematics K-10 Syllabus up to and including this level is also implicit in this syllabus. In a number of cases where content from Stage 5 is included it is in the context of review for clarity and completeness. Schools have the opportunity to review other areas of Stage 5 content as appropriate to meet the needs of students.

## **HSC Examination**

Students studying Mathematics Standard 1 may elect to undertake an optional HSC examination. The examination mark may be used by the Universities Admissions Centre (UAC) to contribute to the student's Australian Tertiary Admission Rank (ATAR).

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

Examination specifications for Mathematics Standard 1 and Mathematics Standard 2 will be available in Term 3 2017.

## **Benefits and Applications**

This course has a great deal of practical applications as it examines the ways that Mathematics is related to everyday situations. It shows students the relevance of Mathematics and promotes an understanding of Mathematical concepts. This awareness allows students to have a greater appreciation of God's work in creation.

The course is fully prescribed (no options) and is designed to support TAFE and other vocational courses.

It provides an appropriate Mathematical background for students who do not wish to pursue the formal study of Mathematics at tertiary level, although many vocational courses which do not assume an extensive Mathematical background may still be accessed.

Mathematics Standard 1 is designed to help students improve their numeracy by building their confidence and success in making mathematics meaningful. Numeracy is more than being able to operate with numbers. It requires mathematical knowledge and understanding, mathematical problem-solving skills and literacy skills, as well as positive attitudes. When students become numerate they are able to manage a situation or solve a problem in real contexts, such as everyday life, work or further learning. This course offers students the opportunity to prepare for post-school options of employment or further training.

Mathematics Standard 2 is designed for those students who want to extend their mathematical skills beyond Stage 5 but are not seeking the in-depth knowledge of higher mathematics that the study of calculus would provide. This course offers students the opportunity to prepare for a wide range of educational and employment aspirations, including continuing their studies at a tertiary level.

# Mathematics - Advanced\*

## **Course Description**

The Mathematics Advanced course is the beginning of a continuum to provide opportunities at progressively higher levels for students to acquire knowledge, skills and understanding in relation to concepts within the area of mathematics that have applications in an increasing number of contexts. These concepts and applications are appropriate to the students' continued experience of mathematics as a coherent, interrelated, interesting and intrinsically valuable study that forms the basis for future learning. The concepts and techniques of differential and integral calculus form a strong basis of the courses, and are developed and utilised across the courses, through a range of applications and in increasing complexity.

## **Topics Covered**

### **Year 11**

- - Functions
- - Trigonometric Functions
- - Calculus
- - Exponential and Logarithmic Functions
- - Statistical Analysis

### **Year 12**

- Functions
- Trigonometric Functions
- Calculus
- Financial Mathematics
- Statistical Analysis

## **Selection Factors**

The outcomes and content in the Stage 6 Mathematics Advanced syllabus are written with the assumption that students studying this course will have engaged with all substrands of Stage 5.1 and Stage 5.2 and with the following substrands of Stage 5.3 - Algebraic techniques, Surds and indices, Equations, Linear relationships, Trigonometry and Pythagoras' theorem and Single variable data analysis. Consequently content in the NSW *Mathematics K-10 Syllabus* up to and including this level is also implicit in this syllabus. In a number of cases where content from Stage 5 is included it is in the context of review for clarity and completeness. Schools have the opportunity to review other areas of Stage 5 content as appropriate to meet the needs of students.

## **Benefits and Application**

The Mathematics Advanced course is focused on enabling students to appreciate that mathematics is a unique and powerful way of viewing the world to investigate patterns, order, generality and uncertainty. The course provides students with the opportunity to develop ways of thinking in which problems are explored through observation, reflection and reasoning.

The Mathematics Advanced course provides a basis for further studies in disciplines in which mathematics and the skills that constitute thinking mathematically have an important role. It is designed for those students whose future pathways may involve mathematics and its applications in a range of disciplines at the tertiary level.

\*The information provided is based on the Mathematics Advanced Stage 6 Final Draft Syllabus. The final syllabus is yet to be released from NESA.

# Mathematics – Extension 1\*

## **Course Description**

Mathematics Extension 1 is part of a continuum to provide opportunities at progressively higher levels for students to acquire knowledge, skills and understanding in relation to concepts within the area of mathematics that have applications in an increasing number of contexts. These concepts and applications are appropriate to the students' continued experience of mathematics as a coherent, interrelated, interesting and intrinsically valuable study that forms the basis for future learning. The introductory concepts and techniques of differential and integral calculus form a strong basis of the courses, and are developed and utilised across the courses, through a range of applications.

## **Topics Covered**

### **Year 11**

- - Functions
- - Trigonometric Functions
- - Calculus
- - Combinatorics

### **Year 12**

- Proof
- Vectors
- Trigonometric Functions
- Calculus
- Statistical Analysis

## **Selection Factors**

The outcomes and content in the Stage 6 Mathematics Extension 1 course are written with the assumption that students studying this course will have engaged with all substrands of Stage 5.1, Stage 5.2 and Stage 5.3, including the optional substrands of Polynomials, Logarithms, Functions and other graphs. Consequently content in the NSW Mathematics K–10 Syllabus up to and including this level is also implicit in this syllabus. In a number of cases where content from Stage 5 is included it is in the context of review for clarity and completeness. Schools have the opportunity to review other areas of Stage 5 content as appropriate to meet the needs of students.

## **Benefits and Application**

Mathematics Extension 1 is focused on enabling students to develop a thorough understanding of and competence in further aspects of mathematics. The course provides opportunities to develop rigorous mathematical arguments and proofs, and to use mathematical models more extensively. Students of Mathematics Extension 1 will be able to develop an appreciation of the interconnected nature of mathematics, its beauty and its functionality.

Mathematics Extension 1 provides a basis for progression to further study in mathematics or related disciplines in which mathematics has a vital role at a tertiary level. An understanding and exploration of Mathematics Extension 1 is also advantageous for further studies in such areas as science, engineering, finance and economics.

\*The information provided is based on the Mathematics Extension 1 Stage 6 Final Draft Syllabus. The final syllabus is yet to be released from NESA.

## **Mathematics – Extension 2\***

### **Course Description**

Mathematics Extension 2 is the culmination of a continuum to provide opportunities at progressively higher levels for students to acquire knowledge, skills and understanding in relation to concepts within the area of mathematics that have applications in an increasing number of contexts. These concepts and applications are appropriate to the students' continued experience of mathematics as a coherent, interrelated, interesting and intrinsically valuable study that forms the basis for future learning. The introductory concepts and techniques of differential and integral calculus form a strong basis of the courses, and are developed and utilised across the courses, through a range of applications.

### **Topics Covered**

- Proof
- Vectors
- Complex Numbers
- Calculus
- Mechanics

### **Selection Factors**

The course is designed for students with a special interest in Mathematics who have shown they possess a special aptitude for the subject and have been successful in Extension 1 Mathematics during the preliminary year.

### **Benefits and Application**

Mathematics Extension 2 provides students with the opportunity to develop strong mathematical manipulative skills and a deep understanding of the fundamental ideas of algebra and calculus, as well as an appreciation of mathematics as an activity with its own intrinsic value, involving invention, intuition and exploration. Mathematics Extension 2 extends students conceptual knowledge and understanding through exploration of new areas of mathematics not previously seen.

Mathematics Extension 2 provides a basis for a wide range of useful applications of mathematics as well as a strong foundation for further study of the subject.

\*The information provided is based on the Mathematics Extension 2 Stage 6 Final Draft Syllabus. The final syllabus is yet to be released from NESA.

# Biology

## **Course Description**

Biology is the study of living things which in their structure, function and relationships bear testimony to the wisdom, power and majesty of the Life Giver.

The course will investigate the levels of organisation of life within organisms and the interactions between living things and their environment. The role of humans as part of creation yet stewards of it will be studied with a view to conserve and protect creation for future generations. An investigation of the history of biological understanding will be integral to the course as will be the application of biology to social, economic, technological and environmental situations.

## **Main Topics Covered**

### **Preliminary Course**

- A Local Ecosystem
- Patterns in Nature
- Life on Earth
- Evolution of Australian Biota

### **HSC Course**

| <b>Core Topics</b>   | <b>One Option from the following:</b>  |
|--|--|
| <ul style="list-style-type: none"><li>• Maintaining a Balance</li><li>• Blueprint of Life</li><li>• The Search for Better Health</li></ul> | <ul style="list-style-type: none"><li>• Biotechnology</li><li>• -Genetics: The Code Broken?</li><li>• -Communication</li><li>• The Human Story</li><li>• -Biochemistry</li></ul> |

## **Particular Course Requirements**

The Preliminary course includes a field study related to a local environment. Practical experiences should occupy a minimum of 80 indicative hours across Preliminary and HSC course time with no less than 35 hours in the HSC course. All topics are of 30 indicative hours in length except A Local Ecosystem (20 hours) and Patterns in Nature (40 hours).

## **Selection Factors**

Biology is recommended for a science based career at tertiary level, but is also suitable for those students who are not intending to continue studies in Science. It is recommended that potential biology students have substantial level of achievement based on the Stage 5 Science course performance descriptors and have good problem solving and written communication skills.

## **Benefits and Application**

Biology investigates the diversity of God's living creation. The course seeks to uncover the complexity and design of living systems and thereby helps students appreciate God's great handiwork. Biology equips students for works of service in medical, agricultural, environmental and social areas.

# Chemistry

## **Course Description**

Chemistry is the study of matter – the fabric of creation. It focuses on investigating the physical and chemical properties of substances, chemical reactions and processes and the interaction of energy and matter. Students will study natural and made substances; their structures, changes and environmental importance. The history and philosophy of science as it relates to Chemistry will also be investigated, how current understanding of Chemistry is being developed and the application of Chemistry in the contexts of technology, society and the environment.

## **Main Topics Covered**

### **Preliminary Course**

- The Chemical Earth
- Metals
- Water
- Energy

### **HSC Course**

| <b>Core Topics</b>  | <b>One Option from the following:</b>  |
|---|--|
| <ul style="list-style-type: none"><li>• Production of Materials</li><li>• The Acidic Environment</li><li>• Chemical Monitoring and Management</li></ul> | <ul style="list-style-type: none"><li>• Biochemistry of Movement</li><li>• Industrial Chemistry</li><li>• The Chemistry of Art</li><li>• Shipwrecks, Corrosion and Conservation</li><li>• Forensic Chemistry</li></ul> |

## **Particular Course Requirements**

Practical experiences occupy a minimum of 80 indicative hours across Preliminary and HSC course time, with no less than 35 hours in the HSC course. Each topic occupies 30 indicative hours.

## **Selection Factors**

There are no official pre-requisites for studying Chemistry but it is strongly recommended that students have a substantial achievement level based on the Stage 5 science course performance descriptors. Sound problem solving and communication skills are an advantage for the potential Chemistry student. Chemistry has equal appeal for girls as well as boys and is strongly recommended as a pre-requisite for any study in a science based career at tertiary level. Chemistry is not generally regarded as an easy subject but the hard work does pay off.

## **Benefits and Application**

Chemistry helps the student grow in their knowledge of God as they come to understand more of the workings of creation. It equips students for works of service in medical, industrial, technological, agricultural and environmental fields.

# Physics

## **Course Description**

Physics is the study of the created order as established and upheld by the Creator. It investigates matter and energy and the interrelationship between the two. The students' understanding is developed by the application of models (including mathematical ones) principles, theories and laws to explain physical behaviour in both macro and micro forms. The interplay between physics concepts and their application in technology is studied as well as the historical development of physics ideas and principles.

## **Main Topics Covered**

### **Preliminary Course**

- Moving About
- The World Communicates
- Electrical Energy in the Home
- The Cosmic Engine

### **HSC Course**

| <b>Core Topics</b>   | <b>One Option from the following:</b>  |
|--|--|
| <ul style="list-style-type: none"><li>• Space</li><li>• Motors &amp; Generators</li><li>• From Ideas to Implementation</li></ul> | <ul style="list-style-type: none"><li>• Medical Physics</li><li>• Astrophysics</li><li>• Geophysics</li><li>• From Quanta to Quarks</li><li>• The Age of Silicon</li></ul> |

## **Particular Course Requirements**

Practical experiences occupy a minimum of 80 indicative hours across Preliminary and HSC course time with no less than 35 hours in the HSC course. Each topic is 30 indicative hours in length.

## **Selection Factors**

There are no official pre-requisites for the study of Physics but good written communication skills and problem solving ability is strongly recommended. It is also recommended students have a substantial level of achievement based on the Stage 5 Maths and Science course performance descriptors and be studying at least Mathematics in Year 11. Girls can do as well (and sometimes better!) in Physics as boys. Physics is not generally regarded as an easy subject but the hard work does pay dividends.

## **Benefits and Application**

Any career which requires the study of Science at tertiary level probably requires Physics to have been studied at Secondary level. Physics enables a student to understand in greater depth the majesty and power of God in creation and opens vast opportunities for harnessing technology for beneficial and godly ends. The physics student will be better equipped for works of service in medical, engineering, transport, communication and industrial areas.

# Geography

## **Course Description**

The aim of Geography Stage 6 is to enable students to study various dimensions of the changing world around us. Students investigate contemporary geographical issues and respond by clarifying, analysing and understanding the nature of the issues. The issues which are currently in the news, such as urban development, natural resource use and coastal management, are investigated and appropriate responses addressed from a geographical and Christian perspective.

## **Main Topics Covered**

### **Preliminary Course**

The Preliminary course consists of the topics:-

- Biophysical Interactions – Coastal environments
- Global Challenges – Population geography; and two options from; Development geography; Cultural Integration; Natural Resource Use; and Political Geography.
- Senior Geography Project
- Geographical tools & skills

### **HSC Course**

The HSC course consists of the topics:-

- Ecosystems at Risk
- Urban places
- People and Economic Activity
- Geographical tools & skills

## **Particular Course Requirements**

Both the Preliminary and HSC course require students to conduct fieldwork as part of their studies. In the Preliminary course this involves a senior research project which allows students to select an issue and carry out an investigation through fieldwork.

## **Selection factors**

There are no prerequisites for the study of Geography, other than an interest in the world God has created for us, and its people.

## **Benefits and Application**

Students of Geography develop skills and understandings which are applicable to the world of work, as well as preparing them for active participation as informed citizens. The study of Geography forms a valuable foundation for a range of courses at university and other tertiary institutions.

# Legal Studies

## **Course Description**

Throughout history societies have organised and regulated themselves by laws. They restrain and punish bad behaviour, enforce order and justice, but they also reflect the character and values of the people who create them. Laws are an expression of who we want to be and how we want to live, yet for most people the legal system is foreign and confusing, even though they interact with hundreds of laws every day of their lives.

The Stage 6 Legal Studies course examines the structure and operation of the Australian legal system by investigating important domestic and international social issues, evaluating the effectiveness of the legal and non-legal responses to those issues, and critically assessing the impact of the legal system from a Christian perspective.

Studying Legal Studies enables students to have confidence in accessing the legal system and provides them with a better appreciation of how it operates within our society. The course will assist in the development of students' knowledge of the basic legal rights and responsibilities of Australians and Australia's international rights and responsibilities. The changing nature of law is studied within a broad selection of contexts which appeal to the students' interests.

## **Main Topics Covered**

### **Preliminary Course**

The Preliminary course consists of the topics:-

- The legal system: sources of Australian & international law; law reform
- The individual and the law: resolving disputes; new technologies
- Law in practice: groups or individuals suffering disadvantage; criminal & civil cases highlighting issues in society & the legal system

### **HSC Course**

The HSC course consists of the topics:-

- Crime: investigations; trials, sentencing & punishment
- Human Rights: promotion & enforcement; contemporary issues
- Two options from: Workplace; Consumers; World Order; Global Environmental Protection; Indigenous Peoples; Family; Shelter

## **Selection Factors**

There are no prerequisites for the study of Legal Studies. The subject has a strong content focus with a significant amount of information to be read and analysed. Essay responses are required for the HSC Options. Legal Studies complements Business Studies, Geography, History and English.

## **Benefits and Application**

Legal Studies provides students with knowledge, understanding and skills of critical analysis, independent research, collaboration and effective communication. These form a valuable foundation for a range of courses at university and other tertiary institutions. Students interested in pursuing further education in Law should study Legal Studies, but it is not a prerequisite for university courses. A range of disciplines would benefit from a background in Legal Studies, including journalism, writing, media studies, politics, international relations, environmental protection, education, public service, social work and police service.

# Ancient History

## **Course Description**

Ancient History involves the study of at least two of the following areas: Egypt, Near East, Greece and Rome in both the Preliminary and HSC courses.

The Preliminary course is structured for students to investigate:

- people, groups, events, institutions, societies and historical sites;
- archaeological and written evidence and the methods used by historians and archaeologists in case studies and in the study of ancient societies.

The course provides a background for students' more specialised HSC studies.

In the HSC course, students use archaeological and written evidence to investigate a personality from the ancient world plus an ancient society, historical period and carry out an historical investigation.

## **Main Topics Covered**

### **Preliminary Course**

- Part I Investigating Ancient History
  - a) The Nature, Methods and Issues of Ancient History
  - b) Case Studies
- Part II The Nature of the Ancient Past – at least two from two of the following areas: Egypt, Near East, Greece and Rome
- Historical Investigation

### **HSC Course**

- Part I: Core: Cities of Vesuvius: Pompeii and Herculaneum
- Part III: Ancient Societies – one Ancient Society to be studied from the Ancient Societies options offered in the syllabus
- Part III: Ancient Personality in the Context of Their Time – one personality to be studied from the Personality options offered in the syllabus
- Part IV: Historical Periods – one Historical Period to be studied from the Historical Periods options offered in the syllabus

Students must make their selections in the HSC course from at least two of the following areas: Egypt, Near East, Greece and Rome. Students in Year 12 can select on additional unit of study – History Extension 1.

## **Selection Factors**

No previous study of History is required for this course, but students should enjoy reading History and must be prepared to read widely and think critically when evaluating historical evidence.

## **Benefits and Application**

The study of ancient times helps us to understand the origins of democratic government and the rule of law which are fundamental aspects of Western society. Certain topics covered in Near Eastern and Roman history are useful as background to events in Roman times. Students should be able to appreciate God's wisdom, purpose and planning when Jesus Christ was born into the comparatively ordered world of the Roman Empire, thus beginning a process by which Christianity spread eventually to the whole world. The skills learned such as research, evaluation and written expression are an excellent preparation for many university courses such as Law, Commerce, Journalism, Religion, Politics and the Arts.

# Modern History

## **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 a background for their more specialised HSC studies.

The HSC Course is designed for students to investigate national and international forces for change and continuity in the twentieth century.

## **Main Topics Covered**

### **Preliminary Course**

#### **Part I: Investigating Modern History**

- The nature, methods and issues of Modern History
- Case Studies e.g The Decline and Fall of the Romanov Dynasty, The Making of Modern South Africa

#### **Part II: Historical Investigation**

#### **Part III: Core Study**

- The Shaping of the Modern World
- (ONE of the following to be studied)
- The Enlightenment
- The French Revolution
- The Age of Imperialism
- The Industrial Age
- World War 1
- The End of Empire

## **HSC Course**

### **Part I: Core Study**

- Power and Authority in the Modern World 1919 -1946 (includes study of Nazi Germany 1933-39 and study of one individual e.g Mussolini, Castro, Chiang Kai-shek, Ho Chi Minh, Kim Il Sung, Gaddafi, Pol Pot)

### **Part II: National Study**

(ONE of the following to be studied)

- Australia 1918 -1949
- China 1927-1949
- India 1942 -1984
- Indonesia 1945 -2005
- Japan 1904 -1937
- Russia and the Soviet Union 1917 -1941
- USA 1919 -1941
- Iran 1953-1989

### **Part III: Peace and Conflict**

Students are to choose ONE from the list provided

- Arab-Israeli Conflict 1948–1996
- Conflict in Europe 1935–1945
- Conflict in Indochina 1945–1975
- Conflict in the Pacific 1937–1951
- The Cold War 1945–1991
- Conflict in the Gulf 1980–2011

#### **Part IV: Change in the Modern World**

(One of the following to be studied)

- Civil Rights in the USA 1946–1968 (Martin Luther King)
- Apartheid in South Africa 1960–1994 (Nelson Mandela)
- Pro-democracy movement in Burma 1962–2010 (Aung San Suu Kyi)
- The Cultural Revolution to Tiananmen Square 1966–1989 (Deng Xiaoping)
- The Nuclear Age 1945–2011 (Harry Truman)
- The Changing World Order 1945–2011 (Mikhail Gorbachev)

Students in Year 12 can select one additional unit of study – History Extension 1.

#### **Selection Factors**

A previous study of History is not required, but success in the Modern History course requires an interest in the subject matter, a commitment to reading, research and study, and skills in essay writing. All of these will be encouraged throughout the course.

#### **Benefits and Application**

Students develop an understanding of the forces which have shaped the modern world, and are better able to formulate arguments based on an understanding of historical concepts. They develop a keen interest in the contemporary world.

The skills learned such as research, evaluation and written expression are an excellent preparation for many university courses such as Law, Commerce, Journalism, Religion, Politics and the Arts.

This is a particularly relevant course for young Christians wishing to understand current world trends and events, or to be thoughtful to the forces which are operating –for good or evil – in today’s world, and who seek to discern God’s purposes for themselves and their world amidst the problems of modern times.

# History Extension

## **Course Description**

History Extension is designed to enable students to build on the outcomes of the Stage 6 Ancient History and Modern History courses in relation to historiography and historical enquiry and communication.

The course is aimed at using specific historical investigations to reflect on the nature of history and how and why approaches and interpretations change over time.

## **Main Topics Covered**

### **Preliminary Course**

There is no Preliminary Course in History Extension – it is a one unit HSC course only.

### **HSC Course**

#### **Part I**

What is Historiography?

- Set readings
- Case Study -

#### **Part II**

History Project

The history project provides the opportunity for students to design and conduct an investigation in an area of changing historical interpretation. This is a major project undertaken over the course of the year.

The Project requires students to:

- design their own question
- submit a proposal
- undertake thorough research
- compose an essay with synopsis
- include an annotated bibliography
- keep a Process Log of the whole project.

## **Selection Factors**

Students must have completed a Preliminary course in either Ancient or Modern History.

Students must be attempting the HSC course in either Ancient or Modern History concurrently with their study of History Extension.

## **Benefits and Application**

This course provides students with knowledge, understanding and skills that form a valuable foundation for a range of courses at university and other tertiary institutions. These include Law, Commerce, Journalism, Religion, Politics and the Arts.

The Case Study, the origins of early Christianity, allows young Christians to develop a firm understanding of the historical reliability of the New Testament accounts of the growth of the early church.

# **Business Studies**

## **Course Description**

This course is studied in the context of God who is the creator of all man's wealth and resources.

Business Studies investigates the role, operation and management of businesses within our society. Factors in the establishment, operation and management of a small business are integral to this course.

Students investigate the role of global business and its impact on Australian business. Students develop research and independent learning skills in addition to analytical and problem solving competencies through their studies.

## **Main Topics Covered**

### **Preliminary Course**

- Nature of Business
- Business Management
- Business Planning

### **HSC Course**

- Operations
- Marketing
- Finance
- Human Resources

## **Particular Course Requirements**

The Preliminary course includes a research project, investigating the operation of a small business or planning the establishment of a hypothetical small business.

## **Selection Factors**

Business Studies was first examined in 1991 and is now one of the most popular HSC subjects. It has a close relationship to Commerce but is much wider in its business application. There are no pre-requisites to the course and is suitable for a wide range of students.

## **Benefits and Application**

The aim of the course is to give students an insight into the workings of the business world. This may raise many moral implications that are important for Christians to face and resolve. The course is an excellent preparation for employment in the business world, as it provides a good understanding of the processes involved.

This subject is useful for careers in commercial areas, secretarial work, accountancy and even running your own business. It is also a useful subject as preparation for a Commerce or Economics degree at University.

# Economics

## **Course Description**

Economics provides an 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 exchange 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.

Some economic issues investigated are:

- Why do interest rates rise and fall?
- What determines the prices of the Australian dollar? What is the impact of appreciation and depreciation?
- How should government spend funds? Is a deficit bad? How do budgets work?
- What influences our choices?
- What contributes to unemployment? What are the strategies to lower the rate?
- Imports, exports, finance flows, and the current account deficit.
- Income inequality
- Quality of life between countries

## **Main Topics Covered**

| <b>Preliminary Course</b>   | <b>HSC Course</b>   |
|---|---|
| <ul style="list-style-type: none"><li>• Introduction to Economics</li><li>• Consumers and Business</li><li>• Markets</li><li>• Labour Markets</li><li>• Financial Markets</li><li>• Government in the Economy</li></ul> | <ul style="list-style-type: none"><li>• The Global Economy</li><li>• Australia's Place in the Global Economy</li><li>• Economic Issues</li><li>• Economic Policies and Management</li></ul> |

## **Selection Factors**

There are no pre-requisites to the study of Economics, though Commerce students will find some areas familiar.

## **Benefits and Application**

The aim of the Economics course is to develop each student's ability to view Economic events and make decisions in the light of God's character and his purposes, then respond in a way which pleases him. It is about making decisions and using alternatives and understanding the implications of decisions by individuals, groups and governments.

The course is designed to be challenging and beneficial to all students irrespective of their career aspirations. Careers where training in Economics is especially useful include management, finance, trading, accountancy, law, sales, advertising, statistics, banking, public service and teaching.

# PDHPE

## **Course Description**

This course is designed to develop in each student the capacity to think critically about key issues related to health and physical activity in order to make informed decisions that support and contribute to healthy, active lifestyles and communities.

## **Main Topics Covered**

### **Preliminary Course**

#### **Core Strands (60% total)**

- Better Health for Individuals
- The Body in Motion

#### **Options (40% total) – two of the following**

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

### **HSC Course**

#### **Core Strands (60% total)**

- Health Priorities in Australia
- Factors Affecting Performance

#### **Options (40% total) – two of the following**

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

## **Particular Course Requirements**

There are no formal prerequisites for this course.

## **Selection factors**

An interest in sport, physical activity and a healthy lifestyle is beneficial, however the level of physical skill is not relevant. Students are involved in learning about and practising ways of maintaining active, healthy lifestyles and improving their health status. It is also concerned with social and scientific understandings about enhancing movement potential.

## **Benefits and Application**

PDHPE provides a direct link with study and vocational pathways in the areas of recreational, paramedical, movement and health sciences. It also encourages personal growth, the enhancement of wellbeing and the development of the individual's capacity to take a productive role in society.

## **Community and Family Studies**

Contemporary society is characterised by rapid social and technological change, cultural diversity, conflicting values and competitive pressure. Yet in the midst of this we have one solid truth to which we cling as Christians – the unswerving faithfulness and unchanging character of our God. It is from the truth of the Scriptures that we critique and examine many of the secular ideas that underpin the concept of family and community, to encourage our students to come to a deeper understanding of the vital importance of the role of both the individual and the family unit, in weaving the very fabric of our society.

Community and Family Studies is an interdisciplinary course which draws upon family studies, sociology, developmental psychology and students' life experience, to give a detailed study of human behaviour and societal interaction. The course has a strong focus on effective resource management that enables a person to function effectively in his/her everyday life, whilst acknowledging at all times that Jesus calls us to live lives in fellowship and harmony with one another and with Him.

The syllabus focuses the Preliminary course on the individual and their interactions with personal groups, family and community. The HSC course builds upon this by examining how the wellbeing of individuals, families and communities is affected by broader societal influences including sociocultural, economic and political factors.

### **Main Topics Covered**

#### **Preliminary Overview**

- Individuals and Groups - The individual's roles, relationships and tasks within and between groups.
- Families and Communities - Family structures and functions, and the interaction between family and community.

#### **HSC Overview**

- Research Methodology - Research methodology and skills culminating in the production of an Independent Research Project.
- Groups in Context - The characteristics and needs of specific community groups.
- Parenting and Caring - Issues facing individuals and groups who adopt roles of parenting and caring in contemporary society.

Plus one elective from the topics: Family and Societal Interactions / Social Impact of Technology / Individuals and Work.

### **Selection Factor**

There are no prerequisites for the study of Community and Family Services.

### **Benefits and Application**

The course will assist in preparing students for a range of vocational options. Indeed many of our students choose to work in volunteer and paid capacities, in fields that focus on children and community development, such as childcare, Sunday school programs, education, social work, welfare etc. Offering secondary students the opportunity to investigate how family and community groups function from a Christian perspective lays a sound foundation for this important work. Community and Family Studies provides opportunities for students to explore and form positive attitudes about themselves and others; to develop an understanding of their relationships within their families and other groups; to learn to work cooperatively and to appreciate the importance of effective communication.

# Software Design and Development

## **Course Description**

The Preliminary course introduces students to the basic concepts of computer 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 asks students to develop and document software using a variety of data structures and language facilities, and through these will learn to solve a number of interesting and relevant software problems.

## **Main Topics Covered**

### **Preliminary Course**

The Preliminary Course consists of three compulsory topics:

- Concepts and issues in the design and development of software. This covers social and ethical issues, hardware and software and software development approaches.
- Introduction to software development involving planning, building, checking and modifying the software.
- Developing software solutions.

### **HSC Course**

The HSC course consists of:

- Development and impact of software solutions covering social and ethical issues and application of software development approaches.
- Software development cycle covering understanding, planning and designing, implementation, testing and evaluation and maintenance.
- Developing a solution package involving project work

One of the following strands will be involved here:

- Evolution of Programming Languages
- The Software Developer's view of the Hardware.

## **Particular Course Requirements**

There are no prerequisites for this course. The course involves a project in both preliminary and HSC courses involving developing software solutions. A minimum of 20% of course time will be spent on practical activities on the computers. It is strongly recommended that only students with strong mathematical skills consider taking this subject.

## **Selection Factors**

Students interested in the fields of Software Development and Computer Science will find this subject of value. It is suitable for students seeking further study or careers in this field as well as those who wish to understand the underlying principles of software design and development. This course complements the Information Processes and Technology Course.

## **Benefits and Application**

This course will provide students with the flexibility to adapt in a field that is constantly changing, yet vital to the Australian economy. The course will give students the knowledge, understanding and skills necessary to pursue the employment opportunities that exist in the field. On completion, the subject provides students with options in the workforce, TAFE and university study.

# Design & Technology

## **Course Description**

Students are involved in, through the development of practical projects, the study of design processes, design theory and factors in relation to design.

In the Preliminary course students undertake at least two practical projects that focus students on various aspects of the design process.

In the HSC courses students undertake a Major Design Project in conjunction with a study of innovation and emerging technologies.

## **Main Topics Covered**

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| Designing and Producing including the study of: <ul style="list-style-type: none"><li>• tools and techniques</li><li>• manipulation of materials</li><li>• manufacturing and production</li><li>• design processes</li><li>• evaluation</li><li>• creativity</li><li>• collaborative design</li><li>• communication</li><li>• computer-based technologies</li><li>• safety</li></ul> | <ul style="list-style-type: none"><li>• The study of designing and producing including a Major Design Project. The project folio includes a project proposal and management, project development and realization, and project evaluation.</li><li>• Innovation and Emerging Technologies including a case study of innovation.</li><li>• environmental issues</li><li>• research, analysis and marketing</li></ul> |

## **Particular Course Requirements**

In the Preliminary course, students must participate in hands-on practical activities. In the HSC course, the comprehensive study of designing and producing that were studied in the Preliminary course are synthesized and applied. This culminates in the development and realization of a major design project and the presentation of a case study.

## **Selection Factors**

There are no pre-requisites for this subject. Students in Yr12 particularly need be self motivated, organised and show initiative to complete their Major Design Projects.

## **Benefits and Application**

The students are exposed to many industrial and technological applications and gain valuable knowledge and experience as a result. They are able to develop the many gifts that God has given them to be of service to others. As students will develop and implement skills in research, planning, time management and documentation, it will provide a solid foundation for future career options in a variety of fields.

# Food Technology

## **Course Description**

This course involves the study of production, processing and consumption of food, the nature of food and human nutrition and the importance of food to health and its impact on society.

Students will also study food technologies in domestic, commercial, industrial and global settings and look at the impact of these technologies on society, the environment and the individual.

## **Main Topics Covered**

### **Preliminary Course**

Each of the three Core Strands must be studied. The allocation of course times are stated below.

1. Food Availability and Selection (30% of course time)
2. Food Quality (40% of course time)
3. Nutrition (30% of course time)

The preliminary course is considered assumed knowledge for the HSC course.

### **HSC Course**

Students must undertake study in each of the four Core Strands .

#### **4 Core Strands**

1. The Australian Food Industry (25% of course time)
2. Food Manufacture (25% of course time)
3. Food Product Development (25% of course time)
4. Contemporary Food Issues in Nutrition (25% of course time)

## **Selection Factors**

Open to all Year 11 students.

## **Benefits and Applications**

Food Technology provides opportunity for students to develop capabilities and competence in designing and preparing food to satisfy a range of needs and investigate a diverse range of food technologies. The study of Food Technology leads to future careers in Hospitality, Nutrition and the Food Technology Industry.

Students will gain an understanding of the process of producing/manufacturing food and its impact on society and the environment. Students will develop skills in researching, analysing and communicating food issues, food preparation, and the design, implementation and evaluation of solutions to food situations.

# **Textiles & Design**

## **Course Description**

The Preliminary course involves the study of design, communication methods, construction techniques, innovations, fibres, yarns, fabrics and the textile industry. Practical experiences are integrated throughout the content areas and include experimental work and project work.

The HSC course builds upon the Preliminary course and involves the study of the history and culture of design, contemporary designers, emerging technologies, sustainable technologies, consumer issues and the marketplace. This course culminates in the development of a Major Textiles Project which is specific to a selected focus area and which includes supporting documentation and textile item/s.

## **Main Topics Covered**

### **Preliminary Course**

- Design (40%)
- Properties and Performance of Textiles (50%)
- The Australian Textiles, Clothing, Footwear and Allied Industries (TCFAI) (10%)

### **HSC Course**

- Design (20%)
- Properties and Performance of Textiles (20%)
- The Australian Textiles, Clothing, Footwear and Allied Industries (10%)
- Major Textiles Project (50%)

## **Particular Course Requirements**

In the Preliminary course, practical experiences are integrated into the Design and Properties and Performance of Textiles areas of study as either experimental work and/or project work.

In the HSC course, the major textile project allows students to develop a textile project that reflects either a cultural, historical or contemporary aspect of design. Students are expected to draw upon the knowledge and understanding of design, properties and performance and the TCFAI developed in the Preliminary course.

## **Selection Factors**

Whilst there are no formal prerequisites for this course, the completion of the Textiles Technology course in Stage 5 or some degree of sewing ability is beneficial.

## **Benefits and Application**

Textiles and Design studies lead to careers in the fashion industry, retailing and advertising. The course encourages development of the relevant knowledge and skills and has wide application in commercial and domestic environments.

# Industrial Technology - Multimedia

## **Course Description**

The Preliminary course consists of skills based project work that teaches the design, development and manipulation of the 5 digital media elements – graphics, video, animation, audio and text.

They investigate in depth the theory behind media manipulation such as file types and properties, computer parts and peripheral devices. They also undertake an introductory study of industry that provides a broad range of skills and knowledge of industrial processes and practices.

The HSC course further develops areas of study undertaken in the Preliminary Course, applying them in the development of a major project and a more comprehensive industry study.

Students studying Industrial Technology - Multimedia will undertake work in four sections based on Production and Industry-related Manufacturing Technology, Design, Management and communication, and an Industry study.

## **Main Topics Covered**

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| <ul style="list-style-type: none"><li>• Image creation and manipulation</li><li>• Video editing</li><li>• Audio production</li><li>• Authoring, publishing, 2D/3D drawing,</li><li>• Web page design</li><li>• Storyboarding in relation to information, entertainment, &amp; marketing</li><li>• Processes, tools and machines</li><li>• Computers and peripheral devices. Printers, monitors, cameras, modems, etc</li><li>• Industry - structure &amp; technical factors, environmental and personnel issues, WHS</li></ul> | <ul style="list-style-type: none"><li>• The HSC course focuses on the development of a major project of industry standard through application and extension of skills developed in the preliminary course.</li><li>• An in depth industry case study is also undertaken giving students vocational application and exposure.</li></ul> |

## **Particular Course Requirements**

The major project is the principal means of examining the outcomes of the HSC course.

Each candidate must present a major project consisting of a product and an accompanying management folio, which will be examined by Board of Studies appointed examiners. This contributes 60% of the student's HSC mark, with the additional 40% being met by an examination.

## **Selection Factors**

Students interested in the fields of graphic design, web design or multimedia development will find this subject of value. Students in Yr12 particularly need be self motivated, organised and show initiative to complete their Major Works. It is suitable for students seeking further study or careers in this field as well as those who wish to understand the underlying principles of computer media presentation and development.

## **Benefits and Application**

This course is intended for both genders and will provide students with the flexibility to adapt in a field that is constantly changing, yet vital to the Australian economy. The course will give students the knowledge, understanding and skills necessary to pursue the employment opportunities that exist in the field. On completion, the subject provides students with options in the workforce, TAFE and university study.

# Engineering Studies

## **Course Description**

The *Engineering Studies Stage 6 Syllabus* is directed towards the development and application of mathematical, scientific and technological skills and their integration with business and management. It provides students with skills, knowledge and understanding associated with a study of engineering, its practices and associated methodologies. The subject promotes environmental, economic and global awareness, problem-solving ability, engagement with information technology, self-directed learning, communication, management and skills in working as a team.

Two types of modules are used to facilitate learning in the course. These are **engineering application modules** and **engineering focus modules**. Engineering application module develops knowledge and understanding of engineering concepts and impacts through the study of engineered products. Engineering focus modules develop knowledge and appreciation of the role of engineers by studying the nature of the engineering profession and emphasising the scope of engineering activities in a given field.

## **Main Topics Covered**

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| <ul style="list-style-type: none"><li>• Engineering Application Module 1: Engineering Fundamentals</li><li>• Engineering Application Module 2: Engineered Products</li><li>• Engineering Application Module 3: Braking Products</li><li>• Engineering Focus Module 4: Biomedical Engineering</li></ul> | <ul style="list-style-type: none"><li>• Engineering Application Module 1: Civil Structures</li><li>• Engineering Application Module 2: Personal and Public Transport</li><li>• Engineering Focus Module 3: Aeronautical Engineering</li><li>• Engineering Focus Module 4: Telecommunications Engineering</li></ul> |

## **Particular Course Requirements**

Throughout the course, students will develop the skills required to produce an Engineering Report, and the Engineering Report will comprise a component of their assessment schedule.

## **Selection Factors**

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

Students may have already had experiences of designing and producing in various elective subjects offered in the TAS suite of subjects, but this is not compulsory.

An interest and aptitude in Mathematics and Physics is recommended..

## **Benefits and Application**

The *Engineering Studies Stage 6 Syllabus* is unique in that it develops knowledge and understanding of the profession of engineering. It also provides an opportunity to integrate the science and mathematics disciplines with societal development and change. The syllabus is inclusive of the needs, interests and aspirations of all students and provides opportunities and challenges to deal with engineering concepts.

Students undertaking Engineering Studies Stage 6 will have the opportunity to follow a number of pathways. These include tertiary study, vocational education and training, and the world of work. For those following a pathway of further study, the insight and experience associated with a study of engineering will be beneficial in their presumed knowledge of the area of study. Students entering into the world of work will benefit from understanding what engineers do, as the work of engineers affects us all.

## French

French is one of the fastest growing languages in the world. It is used across every continent, (including Australasia) and is an official language of countries in Europe, Canada, North America, Africa, the Middle East and in the Indian and Pacific Ocean regions. Research suggests that by 2050 French will be spoken by 750 million people.

Studying a language prepares students for life in a global environment. Learning a second language assists students in developing knowledge, understanding and skills for successful participation in the dynamic, globalised world of the 21st century. Studying a foreign language also assists students in becoming people who are appreciative of the diversity of humanity, God's creation. It, therefore, also helps us become people who share God's concerns for foreigners and his desire for everyone to hear the great news of the gospel.

Research has shown that language learning facilitates intellectual development beyond the language classroom. It enhances creativity and develops more refined and sophisticated skills in analysis, negotiation and problem-solving. Moreover, language study improves literacy ability. It also enhances students' skills in communication, cross-cultural understanding and general knowledge.

Two levels of French are offered at ICS, catering to the particular needs of our students.

### French Beginners

French Beginners provides an intense and fun exposure to the French language. It is designed for students who desire to begin their study of a language in Senior School and who have little (Stage 4 only) or no previous experience with language learning. The course aims to give students enough language to be able to "get by", for example, whilst traveling. Motivated students are able to extend themselves beyond this, however, and can develop their language skills as far beyond this as they desire.

#### **Selection Factors**

To access this course students must have done fewer than or equal to 100 hours, that is one year or less of French in High School.

### French Continuers

French Continuers challenges students to go further in their understanding and use of the French language. It requires students to interact with a greater number of longer, more complex texts and students should expect to feel reasonably confident in their ability to communicate in French by the end of the course.

#### **Selection Factors**

This course is open to any students wishing to challenge themselves and go further with their language skills. Students who have studied French in Stage 5 will be better equipped to meet the requirements of this course, but any motivated student may elect this subject. Students who do well in this course are those who enjoy operating only in the target language, those who are fascinated by languages, and those who are diligent in investing time to acquire the vocabulary required to discuss themselves, their world, and current issues in some detail.

#### **Main Topics Covered**

The aims of both the French courses are to enable students to develop:

- skills in effective communication;
- knowledge of the nature of language;
- understanding of the interdependence of language and culture.

Students will learn to communicate about:

- The Personal World (home, family, friends, future plans)
- The French-speaking communities (how these things are experienced and expressed in French speaking communities around the world).

- French Continuers students also investigate current issues, as relevant to young people.

### **Particular Course Requirements**

The HSC examination consists of two exams in which all four skills (reading, writing, speaking, listening) are tested.

- The oral exam consists of a conversation (Beginners - 5 minutes duration, Continuers - 10 minutes duration) between the student and examiner on a range of topics and allows the student to demonstrate the breadth of their ability. This exam is completed prior to the HSC (usually sometime in August).
- The written exam assesses listening, reading and writing skills.

### **Benefits and Application**

The study of French provides students with opportunities for developing relationships, navigating and enjoying overseas travel, for continued learning and also for future employment.

Students who have studied languages at Illawarra Christian School have gone on to pursue studies in Arts (including French and other languages), International Relations, Psychology, Mathematics (also a language), Christian Ministry, Journalism, Child Care and Education, to name a few.

Knowing French is an advantage in accessing employment both locally and internationally in areas such as public relations, commerce, hospitality, education, marketing, international relations, media and tourism.

# Music 1

## **Prerequisites**

Year 7 and 8 Music (or equivalent)

## **Course Description**

In the Preliminary and HSC courses, students will study the concepts of music through the learning experiences of performance, comp

## **Exclusions**

Music 2

In the Preliminary and HSC courses, students will study the concepts of music through learning experiences in performance, composition, musicology (study of musical styles) and aural (listening) within the context of a range of styles and periods. Analysis of works through listening is a major part of classwork, as is performance, with part of the musicology component being covered through research of the topic. They will also actively engage with music software production/composition programs such as:

- - Apple GarageBand
- - Logic X
- - Noteflight
- - Mainstage

Music 1 is a dynamic and practically-based subject at senior school level, covering a wide range of interests and abilities. Generous opportunities for live performances through school events also form a key part of the course.

## **Main Topics Covered**

Students study three topics in each year of the course. Topics are chosen from a list of twenty-one options covering a range of styles including Jazz, Australian Music, Rock Music, Popular Music, Baroque Music, Music and Religion, Music for Small Ensembles, Music for radio, film, TV and multimedia, Theatre Music, and Technology and its Influences on 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.

## **Selection Factors**

This course 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. It assumes no prior knowledge of musical notation beyond Stage 4 Music; however, it is advisable for students to have previous experience on an instrument (or voice).

## **Benefits and Application**

This is an excellent course for various types of students, including those who:

- enjoy music and/or singing for pleasure and would like to expand their knowledge and skill;
- would like to develop their creative ability in music performance and composition;

- would like to enhance their cultural appreciation by developing the ability to converse confidently about a range of musical styles and genres, and to critique them in an informed and distinctly Christian manner;
- would like to follow a careers in fields which require teamwork, self-discipline, leadership, effective verbal and non-verbal communication and good people skills;
- would like to develop knowledge and skills that form a valuable foundation for a range of courses at university and other tertiary institutions;
- would like to play or sing in worship services or use music to minister to others.

# Drama

## **Course Description**

Students study the practices of Making, Performing and Critically Studying in Drama. Students engage with these components through collaborative and individual experiences. Learning is experiential in all the areas covered in the Preliminary course. In addition to a study of Australian Drama and Theatre, the HSC course component Studies in Drama and Theatre involves the theoretical study of traditions of theatre through the practical exploration of themes, issues, styles and movements, while also exploring relevant acting techniques, performance styles and spaces.

The Group Performance of between three and six students, involves creating a piece of original theatre (eight to twelve minutes in duration). It provides the opportunity for each student to demonstrate his or 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**

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| <ul style="list-style-type: none"><li>• Improvisation, Playbuilding, Acting</li><li>• Elements of Production in Performance</li><li>• Theatrical Traditions and Performance Styles</li></ul> | <ul style="list-style-type: none"><li>• Australian Drama and Theatre (Core content)</li><li>• Studies in Drama and Theatre</li><li>• Group Performance (Core content)</li><li>• Individual Project</li></ul> |

## **Particular Course Requirements**

The Preliminary course informs learning in the HSC course. In the study of theoretical components, 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.

## **Selection Factors**

Previous experience in Drama is desirable but not essential. Drama is a subject that requires the ability to collaborate with others in a team context. It also requires self discipline, and the ability to manage time and a task, particularly with the preparation of the Individual Project. This should be considered when selecting Drama for the HSC.

## **Benefits and Application:**

The Performing Arts have always been a significant part of human activity because they enable us to interpret, understand, express and influence the concerns of people and their communities. This course will develop numerous skills and dramatic dimensions ranging from the technical, vocational and recreational to the spiritual, creative and cultural. It aims to develop skills useful for ministry and vocational use of Drama. Therefore, it is an excellent course for various types of students, including those who:

- enjoy going to the theatre and would like to expand their knowledge;
- would like to follow a careers in fields which require teamwork, effective time and task management, good people skills and the ability to speak confidently to an audience, such as ministry and missions, events coordination, public relations, politics, psychology, film and television, and the performing arts.

# Visual Arts

## 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 of art making practice and which demonstrates their ability to resolve a conceptually strong work. Students critically investigate artists, artworks, critics and art historians 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 Stage 5, it also caters for students with only Stage 4 experience in Visual Arts.

## Main Topics Covered

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| <p>Learning opportunities focus on:</p> <ul style="list-style-type: none"> <li>• The nature of practice in artmaking, art criticism and art history through different investigations;</li> <li>• The role and function of artists' artwork, the world and audiences in the artworld;</li> <li>• The frames and how students might develop their own informed points of view;</li> <li>• How students may develop meaning, focus and interest in their work;</li> <li>• Building understandings over time through various investigations and working in different forms.</li> </ul> | <p>Learning opportunities focus on:</p> <ul style="list-style-type: none"> <li>• How students may develop their own informed points of view in increasingly more independent ways, using the frames;</li> <li>• How students may develop their own practice of artmaking, art criticism, and art history applied to selected areas of interest;</li> <li>• How students may learn about the relationships between artist, artwork, world audience within the artworld;</li> <li>• How students may further develop meaning and focus in their work.</li> </ul> |

## Particular Course Requirements

| <b>Preliminary Course</b>  | <b>HSC Course</b>  |
|--|--|
| <ul style="list-style-type: none"> <li>• artworks in at least 2 forms and use of a process diary</li> <li>• a broad investigation of ideas in art criticism and art history</li> </ul> | <ul style="list-style-type: none"> <li>• development of a body of work and use of a process diary</li> <li>• a minimum of 5 Case Studies (4–10 hours each)</li> <li>• deeper and more complex investigations of ideas in art criticism and art history.</li> </ul> |

## Benefits and application

This is an excellent course for various types of students, including those who:

- enjoy being creative in the visual arts;
- would like to develop their creative skills in the visual arts;
- are looking for a subject to balance their more academic pursuits by providing a form of stress relief through the practical artmaking;
- would like to develop the ability to converse confidently about art and culture;
- would like to travel overseas;
- would like to follow a career in fields such as graphic design, architecture, ministry and missions, teaching, animation, film-making, landscape design and many other creative fields.

# **Biblical Studies**

## **Course Description**

Through the study of Biblical Studies, students will develop knowledge and understanding about:

the main events and people in biblical history through to the present day; the flow of major themes through the Bible from Old Testament to New Testament; the centrality of Christ to the prophecies, events and focus of the biblical record; the various types of literature which make up the writings of the Bible; theological terms and concepts as they are used in the Bible and a biblical perspective on issues facing Christians today.

## **Main Topics Covered**

### **Preliminary Course**

**Doctrine 1:** Students will explore the key Christian doctrines of the Bible, God, Jesus, the Trinity, Man and Sin.

**Church History 1:** Students will explore some key turning points in Church History from Early Church History to the Reformation.

**Ethics and Issues 1:** This unit explores some key issues facing Christians in the modern world. For example:

- The Environment
- Politics
- Science and Technology
- Pain and Suffering

### **HSC Course**

**Doctrine 2:** Students will explore the key Christian doctrines of Salvation, Grace, Sanctification and Things to Come

**Church History 2:** Students will explore some key turning points in Church History from the Reformation to the present day.

**Ethics and Issues 2:** This unit explores some key issues facing Christians in the modern world. For example:

- Relationships: Sex and Dating, Marriage and Divorce, Parents, Family, Homosexuality

**Ethics and Issues 3:** This unit explores key issues facing Christians in the modern world. For example:

- Work and Money
- World Religions
- Ministry and Service
- Guidance

## **Particular Course Requirements**

Biblical Studies is a school based course and is compulsory for all students. Biblical Studies does not contribute to an ATAR.

## **Selection Factors**

There are no pre-requisites for this subject.

## **Benefits and Application**

The aim of Biblical Studies is to enable students to acquire the biblical knowledge and understanding, skills, and values and attitudes essential for the development of a distinctively Christian world and life view, and to prepare students for informed and active Christian living in a changing world.