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Decision Time

Choosing My HSC Subjects
For 2014-2015

HSC Course Requirements

Requirements For The Award Of The HSC

If you wish to be awarded the HSC:

- you must have satisfactorily completed courses that meet the pattern of study required by the Board of Studies for the award of the Higher School Certificate. This includes the completion of the practical, oral or project works required for specific courses and the assessment requirements for each course.

- you must have sat for and made a serious attempt at the Higher School Certificate examinations.

- you must study a minimum of 12 units in the Preliminary course and a minimum of 10 units in the HSC course. Both the Preliminary course and the HSC course must include the following:
  - at least 6 units from Board Developed Courses including at least 2 units of a Board Developed Course in English.
  - at least three courses of 2 units value or greater.
  - you must take at least four subjects.

At most 6 units of courses in Science can contribute to Higher School Certificate eligibility.

- The Board of Studies publication, Studying for the New South Wales Higher School Certificate - An Information Booklet for Year 10 Students, contains all the HSC rules and requirements you will need to know.

- If you wish to receive the Australian Tertiary Admissions Rank (ATAR), you must study a minimum of 10 Board Developed units in the HSC Course. The booklet, University Entry Requirements Year 10 Booklet, published by UAC will contain important information about entry to university courses, course prerequisites and other information to assist your choice.
of HSC courses for study in College 1 (Year 11) and College 2 (Year 12) in preparation for university entry.

- The ATAR is a rank that allows the comparison of students who have completed different combinations of HSC courses. The ATAR is calculated solely for use by institutions to rank and select school leavers for admission to tertiary courses. Other selection criteria may be used together with the ATAR.

If you do not wish to receive an ATAR, the rest of your courses may be made up from Board Endorsed Courses once you have studied six units from Board Developed Courses. If you wish to be awarded an ATAR a student must satisfactorily complete at least ten units from the Board Developed courses for which there are examinations including at least:

- Eight units from Category A courses
- Two units of English
- Three Board Developed courses of two units or greater
- Four subjects.

Information About The HSC

General Information

This is your introduction to the HSC and the many options now available. More information is contained in the following Board of Studies publication:

- *Studying for the New South Wales Higher School Certificate - An Information Booklet for Year 10 Students.*

- The Higher School Certificate recognises 13 years of schooling. In the interests of greater career choices and increased opportunities at university and TAFE, it offers you a full range of study areas matching individual abilities, interests and goals.
- Courses will be linked to further education and training.
- Extension courses (including undergraduate university courses) will enable students to undertake more in-depth study in areas of special interest.
- Vocational Education and Training courses will count towards the HSC and will also lead to qualifications recognised across a range of industries.
- The HSC will include life skills courses for students with special education needs.
- The HSC will fairly assess each student's knowledge and skills.
- If you meet the minimum standard expected in a course you will receive a mark of 50. If you have a higher standard of performance you will receive a higher mark.
- For each course you will receive easy-to-understand reports which contain much more information. These reports provide clearer indications of what you have demonstrated you know, understand and can do in each course.
What Types Of Courses Can I Select?

There are different types of courses that you can select in College 1 (Year 11) and College 2 (Year 12).

- **Board Developed Courses**

  The Board of Studies develops these courses. There is a syllabus for each course which contains:
  
  - the course objectives, structure, content and outcomes
  - specific course requirements
  - assessment requirements
  - sample examination papers and marking guidelines
  - the performance scale (except for Vocational Education and Training Courses)

  All students entered for the HSC who are studying these courses follow these syllabuses. These courses are examined externally at the end of the HSC course and can count towards the calculation of the ATAR.

- **Vocational Education Courses are Board Developed and can count towards the calculation of the ATAR. However, only one Vocational Education Course can count towards the calculation of an ATAR.**

- **Vocational Education and Training (VET) Courses – either Board Developed or Board Endorsed:**

  - Vocational Education and Training (VET) courses are offered as part of the Higher School Certificate. They enable students to study courses which are relevant to industry needs and have clear links to post-school destinations. These courses allow students to gain both Higher School Certificate qualifications and accreditation with industry and the workplace as part of the Australian Qualifications Framework (AQF). The national framework is recognised across Australia and helps students to move easily between the various education and training sectors (including TAFE) and employment. These courses each have a specific workplace component and a minimum number of hours students spend in the workplace or a simulated workplace at school. Students receive special documentation showing the competencies gained. Schools will deliver some of these courses, while others will be delivered by TAFE or other providers.

  - Students may apply for Recognition of Prior Learning (RPL) to be exempt from part of a VET course.
Life Skills Courses as part of a Special Program of Study

Stage 6 (College 1 and 2) Life Skills courses are available for students following a Special Program of Study for the Higher School Certificate.

Students accessing a Special Program of Study in Stage 6 will, in general, need to have completed at least four Generic Life Skills courses within a Special Program of Study in Stage 5 (Years 9 and 10). Further, participation in a Special Program of Study will be based upon an individual transition-planning process which will occur for both the Preliminary and HSC years.

Life Skills courses will have Board Developed status and can be used in place of other Board Developed Courses to meet requirements for the award of the Higher School Certificate. Each Life Skills course comprises a 2 unit Preliminary course and a 2 unit HSC course.

The Board expects that most students would meet the outcomes for a 2 unit Preliminary course and a 2 unit HSC course over approximately 240 indicative hours in total (that is, 120 indicative hours in each course).

What Are Units?

All courses offered for the Higher School Certificate have a unit value. Subjects may have a value of 1 unit or 2 units. Most courses are 2 units. Each unit involves class time of approximately 2 hours per week (60 hours per year). In the HSC each unit has a value of 50 marks. Hence a 2 unit course has a value of 100 marks.

2 units = 4 hours per week (120 hours per year) = 100 marks

The following is a guideline to help you understand the pattern of courses.

2 UNIT COURSE

- This is the basic structure for all courses. It has a value of 100 marks.

EXTENSION COURSE

- Extension study is available in a number of subjects. Extension courses build on the content of the 2 unit course and carry an additional value of 1 unit. Requiring students to work beyond the standard of the 2 unit course, extension courses are available in English, Mathematics, History, Music, some Languages and VET. Undergraduate university courses will be available in some subjects.
- English and Mathematics Extension Courses are available at Preliminary and HSC levels. Students must study the Preliminary extension course in these subjects before proceeding to the two HSC extension courses (Extension 1 and Extension 2). The Extension 2 course requires students to work beyond the standard of the Extension 1 course.
- HSC extension courses in subjects other than English and Mathematics are offered and examined in College 2 (Year 12) only.
1 UNIT COURSE

✓ 1 unit equals approximately 2 hours of class time each week or 60 hours per year.
✓ Studies of Religion can be undertaken as 1 or 2 unit courses.
✓ There are a number of 1 unit Board Endorsed Courses. These courses do not count in the ATAR.

Assessment and Reporting

• The HSC reports will provide you with detailed descriptions of the knowledge, skills and understanding you have attained in each subject.

• Teachers have been provided with a syllabus package for each course. The packages include the syllabus content which teachers use to develop teaching programs, examination specifications, sample examination papers, sample marking guidelines and a performance scale.

• The syllabuses, along with assessment and examination information and a performance scale will be used to describe your level of achievement, give a clear idea of the standards that are expected.

• School-based assessment tasks will contribute to 50% of your HSC mark. Your school assessment mark will be based on your performance in assessment tasks you have undertaken during the course.

• The other 50% will come from the HSC examination.

• Your HSC mark for 2 unit courses will be reported on a scale of 0 to 100. A mark of 50 will represent the minimum standard expected. If you achieve the minimum standard expected in a course you will receive a mark of 50. There will be five performance bands above 50 that correspond to different levels of achievement in knowledge, skills and understanding. The band from 90 – 100 will correspond to the highest level of achievement.

• On satisfactory completion of your HSC subjects you will receive a portfolio containing:
  
  ▪ **The HSC Testamur** - the official certificate confirming your achievement of all requirements for the award.
  
  ▪ **The Record of Secondary Achievement** - this document lists the courses you have studied and reports the marks and bands you have achieved.
  
  ▪ **Course Reports** - for every HSC Board Developed Course you will receive a Course Report showing your marks, the Performance Scale and the band descriptions for that course. A graph showing the state-wide distribution of marks in the course is also shown.
Common Terms and Abbreviations

- Board/Board of Studies - NSW Board of Studies
- Board Developed - A Board Developed Course is one in which the syllabus has been developed by the Board of Studies.
- ATAR - Australian Tertiary Admission Rank

**ATAR courses** - ATAR courses are Board Developed Courses for which there are formal examinations conducted by the Board of Studies that yield a graded assessment. These are the only courses that can be included in the ATAR calculations. ATAR courses are classified as either Category A courses or Category B courses.

**Category A courses** - These courses have the academic rigour and depth of knowledge to provide an adequate background for tertiary studies.

**Category B courses** - These courses do not have the academic rigour and depth of knowledge to provide an adequate background for tertiary studies in themselves, but their contribution to the ATAR is regarded as adequate if the other courses included in the ATAR are more academically demanding.

**Content Endorsed Courses** - These are courses that are of less academic rigor which are endorsed by the Board of Studies and delivered by schools. Although they do not count towards an ATAR they do count towards the number of units of study for the award of the HSC.

<table>
<thead>
<tr>
<th>In 2014-2015 the Category B courses are:</th>
<th>In 2014-2015 the Content Endorsed Courses are:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Construction</td>
<td>• Applied Maths</td>
</tr>
<tr>
<td>• Hospitality</td>
<td>• English Studies</td>
</tr>
<tr>
<td>• Information &amp; Digital Technology</td>
<td>• Sport Lifestyle and Recreation</td>
</tr>
<tr>
<td>• Retail Services</td>
<td>• Photography, Video and Digital Media</td>
</tr>
<tr>
<td></td>
<td>• Computing Applications</td>
</tr>
</tbody>
</table>

**PERCENTILE**

A percentile indicates your position in a course against other students. The top percentile is 100 and the bottom percentile is 0. If your percentile in a course is 73, you are placed 27% from the top of the students in that course.

**UAC**

The Universities Admission Centre (NSW & ACT) Pty Ltd is the central office, which receives and processes applications for admission to most undergraduate courses offered by universities in NSW and the ACT.

**ATAR RULES**

To be eligible for an ATAR a student must satisfactorily complete at least ten units from the Board Developed courses for which there are examinations including at least:
• Eight units from Category A courses
• Two units of English
• Three Board Developed courses of two units or greater
• Four subjects.

**WHAT COURSES ARE INCLUDED IN THE CALCULATION OF THE ATAR?**

The ATAR is based on an aggregate of scaled marks in ten units of ATAR courses comprising:

• The best two units of English
• The best eight units from the remaining units, which can include up to two units of Category B courses.

It is important to choose subjects that you are good at, that you are interested in and that will be useful for your future plans.

It is a myth that choosing particular subjects will maximise your university admission rank. In any event, choosing your subjects without thinking about what you are good at, what you are interested in and what you plan to do after school would be to trivialise your education.

**The Senior Curriculum at Liverpool Boys High School**

The Structure of the Program

• Students in the Senior years will study three subjects at a time and complete the HSC exams in these subjects at the end of College 1 (Year 11) - Year 1 of Senior School. They then study another three subjects in a similar manner in their second year, College 2 (Year 12) - Year 2 of Senior School, with HSC exams at the end.
• Students commence with introductory (Preliminary) studies as soon as the Year 10 is completed. The whole school commences a new academic year at this time, (Term 4 Week 6).
• Preliminary studies are completed by the end of Term 1 with end of Preliminary Examinations.
• Students commence HSC studies in Term 2 with midway HSC examinations in approximately Week 7 of Term 2.
• Trial HSC Examinations take place in mid Term 3.
• HSC Examinations are at the beginning of Term 4. Once HSC Examinations are completed, students commence studying their next range of subjects in Term 4.

Therefore, all Senior Students are enrolled in only three courses (subjects) at the beginning of College 1 (Year 11) and three courses (subjects) in College 2 (Year 12). This gives students double the time to complete each course (i.e. double the number of periods in the traditional
model) and so they are able to sit for their HSC courses at the end of each year. By the end of each year, from Term 4 Week 6, students have chosen and started their courses for the following year and have completed their HSC Examinations for their Year 1 courses.

Overview

The Senior School Program at L.B.H.S will:

- Satisfy the requirements of the Board of Studies & DEC
- Give more choices to students and provide a better range of subjects
- Make HSC Examinations more a part of the Learning Program.
- Encourage students to take senior school more seriously because there are real and urgent goals.
- Allow students to get results earlier.
- Permit students to have better opportunities to change direction with their subject choice at the completion of the first year of College (end of Year 11).
- Reduce student stress associated with studying six HSC course concurrently.

Subjects Offered For Study At Liverpool Boys High School

Possible 2014-2015 Subjects

The following subjects are offered as possible subjects for study in the Senior School for 2014-2015. A final decision on the courses that will actually run will be determined by the number of students selecting a subject in the Subject Selection Survey. In the subject selection process you may not be granted your first choice in the first year of HSC study.

Board Developed Course subjects are grouped in the following Key Learning Areas: English, Mathematics, Science, Human Society and Its Environment (HSIE), Creative and Performing Arts (CAPA), Physical Education (PE) and Technological and Applied Studies (TAS). These subjects are followed by the Content Endorsed Course subjects and Vocational Education and Training courses.
ENGLISH

English Standard

The Preliminary and HSC Standard courses are designed for students to become proficient in English to enhance their personal, social and vocational lives. These courses provide students with the opportunity to become confident and effective communicators by developing their skills and understanding in the areas of reading, writing, speaking, listening, viewing and representing. Students enjoy the breadth and variety of English texts as represented through fiction, poetry, drama, film, media, non-fiction and multimedia.

English Advanced

The Preliminary and HSC Advanced courses are designed for students to become critical and sophisticated users of English in order to enhance their personal, social and vocational lives. These courses provide students who have a particular interest and ability in the subject with challenging learning experiences and the opportunity to enjoy the breadth and variety of English texts. Students engage in a close study of texts as represented through prose fiction, poetry, drama, film, media, non-fiction and multimedia. They extend their knowledge of personal, social, historical, cultural and workplace contexts to understand how these influence the composition of and response to texts.

English Extension 1

The Preliminary and HSC English (Extension) courses enable students who are accomplished, analytical and imaginative in their use of English to refine their understanding and appreciation of the cultural roles and significance of texts. The course is designed for students with a desire to pursue a specialised study of English.

These courses provide students with the opportunity to pursue areas of interest with increased independence and to theorise about the processes of responding to and composing texts. Through extended engagement in investigation and composition, students explore multiple and relative values of texts. They explore a range of conceptual frameworks for the reading and composition of texts and examine a range of reading practices to develop awareness of the assumptions that guide interpretation and evaluation.

English Extension 2

This course can only be undertaken in addition to Extension 1 and is only a HSC course (there is no Preliminary Extension 2). In this course students develop a sustained composition and document and reflect on this process. Students are required to work independently to plan and complete a major work in the form of an extended composition. This course allows students to select an area of personal interest from their specialised study of English and develop their work in this area to a level of distinction.
English as a Second Language (ESL)

The English as a Second Language (ESL) course provides students with the opportunity to become effective, creative and confident communicators in English. They will be able to respond to texts for a variety of purposes and audiences that are relevant to their personal, social and working lives. Students will extend their reading, writing, speaking, listening, viewing and representing skills through the study of literary and non literary texts including prose fiction, drama, poetry, nonfiction, film, media and multimedia text.

NOTE: Students need to meet the Course Entry Requirements to undertake this course.

Drama

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

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

HSC Course: Australian Drama and Theatre and Studies in Drama and Theatre involves the theoretical study through practical exploration of themes, issues, styles and movements of traditions of theatre exploring relevant acting techniques, performance styles and spaces. The Group Performance of between 3 and 6 students involves creating a piece of original theatre (8 to 12 minutes duration). It provides opportunity for each student to demonstrate his performance skills.

For the Individual Project, students demonstrate their expertise in a particular area. They choose one project from Critical Analysis or Costume Design or Performance or Script-writing or Video Drama or Program and Promotion.
MATHEMATICS

General Mathematics (Pathways 1 & 2)

General Mathematics focuses on mathematical skills and techniques which have direct application to everyday activity. The course content is written in five areas of study, with an emphasis on applications of specific skills and on tasks that involve integrating mathematical skills and techniques across a range of familiar and unfamiliar situations. These tasks may draw from more than one area of study, and encourage transfer of knowledge across the entire course, as well as linking with study in other Stage 6 subjects.

The course is fully prescribed, 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, while giving a strong foundation for university study in the areas of business, humanities, nursing and paramedical sciences.

Mathematics

The course is designed for students who wish to pursue further study in Mathematics as a minor discipline at university or to enter subjects such as life sciences or commerce. This course includes topics like further trigonometry and calculus. Because of the more abstract approach of this course, the students who should be selecting this course are those students who have studied pathways 5.3 and 5.2 and achieved good results.

Mathematics Extension 1

This course is designed for students who wish to pursue Mathematics as a major discipline at university or enter other fields that require high levels of Mathematics as a prerequisite, such as physical sciences, computer science or engineering. It contains all of the Mathematics course with the addition of extension topics and further topics. Since this is a difficult and demanding course, students who should be selecting this course are students who have studied pathways 5.3.

Mathematics Extension 2

This course is designed for students who possess a special aptitude for Mathematics, with a heightened interest in the subject. It represents a distinctly high level of school Mathematics, involving the development of considerable manipulative skill and a high degree of understanding of the fundamental ideas of Algebra and Calculus. It encapsulates both the Mathematics and Mathematics Extension 1 courses. The course provides an adequate foundation for further study of Pure and Applied Mathematics at the university level.
<table>
<thead>
<tr>
<th>A Local Ecosystem</th>
<th>Patterns in Nature</th>
<th>Life on Earth</th>
<th>Evolution of Australian Biota</th>
<th>HSC Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying the biotic and abiotic features of aquatic and terrestrial ecosystems.</td>
<td>The historical development of the cell theory and our understanding of cell structure.</td>
<td>The scientific theories that can explain the origin of organic molecules and life on Earth.</td>
<td>Identifying the geological evidence that Australia was once part of a giant supercontinent.</td>
<td>Identifying the factors that affect enzyme activity, including temperature and pH.</td>
</tr>
<tr>
<td>Describing the adaptations of plant and animal species that enable their survival.</td>
<td>The role of membrane structure and surface area to volume ratio in diffusion rates of substances into and out of cells.</td>
<td>Describing the range of fossil and geological evidence that suggests when life began on Earth.</td>
<td>Describing the role of Darwin in observing the changes in Australia’s flora and fauna and devising a theory of evolution by natural selection.</td>
<td>Describing the role of inheritance and natural selection in the evolution of change in a species.</td>
</tr>
<tr>
<td>Explaining the impact of humans on natural ecosystems.</td>
<td>Examining the structure and function of living organisms to identify the fundamental similarities in plant and animal cell biochemistry.</td>
<td>Explaining how the study of present day organisms increases our understanding of past organisms and their environments.</td>
<td>Explaining the role of reproductive adaptations in increasing the chances of survival of various species in the Australian environment.</td>
<td>Identifying the factors that can lead to disease outbreaks in populations.</td>
</tr>
<tr>
<td>Conducting a field study of a local aquatic or terrestrial ecosystem.</td>
<td>Explaining the role of mitosis in the growth, replacement and repair of cells and tissues.</td>
<td>Evaluating the importance of palaeontology to increase our understanding of biodiversity.</td>
<td>Explaining how reproductive techniques may change the genetic composition of a species.</td>
<td></td>
</tr>
</tbody>
</table>

**Patterns in Nature**
- The historical development of the cell theory and our understanding of cell structure.
- The role of membrane structure and surface area to volume ratio in diffusion rates of substances into and out of cells.
- Examining the structure and function of living organisms to identify the fundamental similarities in plant and animal cell biochemistry.
- Explaining the role of mitosis in the growth, replacement and repair of cells and tissues.

**Life on Earth**
- The scientific theories that can explain the origin of organic molecules and life on Earth.
- Describing the range of fossil and geological evidence that suggests when life began on Earth.
- Explaining how the study of present day organisms increases our understanding of past organisms and their environments.

**Evolution of Australian Biota**
- Identifying the geological evidence that Australia was once part of a giant supercontinent.
- Describing the role of Darwin in observing the changes in Australia’s flora and fauna and devising a theory of evolution by natural selection.
- Explaining the role of reproductive adaptations in increasing the chances of survival of various species in the Australian environment.
- Evaluating the importance of palaeontology to increase our understanding of biodiversity.

**HSC Course**
- Identifying the factors that affect enzyme activity, including temperature and pH.
- Mechanisms of temperature regulation in endothermic and ectothermic organisms.
- Describing the structures designed to facilitate nutrient transport in plants and animals.
- Explaining the processes of metabolic waste removal and fluid balance in plants and animals, including the role of hormones.

**Maintaining a Balance**
- The role of inheritance and natural selection in the evolution of change in a species.
- Describing the experiments carried out by Gregor Mendel, including his Punnett squares technique for predicting heredity of dominant and recessive physical traits.
- Understanding the structure of chromosomes, the formation of sex cells and the factors that lead to the inheritance of sex-linked genes.
- Describing the work of scientists in solving the structure of DNA and identifying ways that DNA structure may be altered.
- Explaining how reproductive techniques may change the genetic composition of a species.

**Blueprint of Life**
- Identifying the factors that can lead to disease outbreaks in populations.
- Describing the contributions of the scientists Pasteur and Koch to our understanding of infectious disease and how it is transmitted.
- Identifying the role of antibiotics in the management of bacterial disease.
- Explaining how the body’s defence barriers and the immune system work to prevent and control infectious diseases.
- Identifying the role of epidemiology in understanding the causes of non-infectious diseases.

**The Search for Better Health**
- Describing the structure and function of the human eye and its role in communication.
- Identifying the range of cells in the eye’s retina that process light into electrical signals.
- Explaining the different ways that sound is produced by animals and humans.
- Describing the structure and function of the human ear and evaluating cochlear implant technology for hearing loss.
- Describing the way the brain receives and interprets electrical signals from the eye and ear.
### Chemistry Preliminary Course

**The Chemical Earth**
- Identifying the elements and compounds found in Earth materials, and the separation techniques used to isolate these substances.
- Examining the physical and chemical properties of elements and compounds found on Earth.
- Investigating the extraction processes used to obtain elements from natural resources.
- Using models to describe the bonding and structure of different categories of substances.

**Metals**
- Describing the historical uses of metals and alloys, including the Bronze and Iron Age periods.
- Examining the relative reactivity of metals and relating this to their uses in everyday life.
- Exploring the trends in physical and chemical properties of elements from the Periodic Table.
- Describing the mole as a versatile chemical measure as proposed by Avogadro and Gay-Lussac.
- Evaluating the economics of mining versus recycling in the management of metal ore resources.

**Water**
- Identifying the importance of water as a solvent in living things and its distribution on Earth.
- Describing the molecular structure and physical properties of water.
- Examining the solubility of different substances in water and using various concentration terms, including molarity, in calculations to determine solution concentration.
- Investigating the property of specific heat capacity for water.

**Energy**
- Identifying the photosynthetic origins of chemical energy on Earth, stored in fossil fuels.
- Exploring the versatility of carbon bonding and the variety of carbon compounds that can exist.
- Describing the molecular and energy changes that occur in chemical reactions, such as combustion.
- Explaining factors that affect the rate of chemical reactions, including the role of catalysts.

### HSC Course

**Production of Materials**
- Describing the formation, structure, properties and uses of polymers used in everyday life.
- Exploring the potential of biopolymers from renewable sources, such as plants.
- Explaining the chemical processes to obtain ethanol from renewable sources and evaluating its potential as an alternative fuel for society.
- Describing the chemistry of galvanic cells and their application in commercial batteries.
- Evaluating the use of radioisotopes in industry and medicine, considering the benefits and problems associated with radiation.

**The Acidic Environment**
- Identifying the range of indicators used in acid-base chemistry and everyday life.
- Explaining the effects of acidic oxides being released into the atmosphere by transport and industry as the formation of acid rain that leads to destruction of buildings and ecosystems.
- Describing the historical development of theories of acids and the properties of acids.
- Explaining the use of weak acids in processed food and analysing the concentration of a domestic acidic substance using acid-base titration.
- Identifying the chemistry of esters and synthesising some simple esters.

**Chemical Monitoring and Management**
- Describing the historical aspects and chemistry of the Haber process for ammonia production.
- Explaining the use of the analytical technique Atomic Absorption Spectroscopy in the monitoring of metal ions for pollution control and trace element analysis.
- Describing the chemistry of ozone depletion and the important role of scientists in determining that this was caused by CFCs and finding ways to solve this environmental problem.
- Understanding the chemical and physical processes that occur in the treatment of dam water.

**Industrial Chemistry**
- Analysing equilibrium reactions through calculations of the equilibrium constant K.
- Describing the equilibrium chemistry of industrial sulphuric acid production.
- Explaining the use of electrolysis to produce sodium hydroxide, an important industrial chemical.
- Describing the properties of soap and detergents, and synthesising soap through saponification.
- Explaining the Solvay process for industrial sodium carbonate production.
### Physics Preliminary Course

#### The World Communicates
- Identifying that energy transfers as waves and describing the features of waves.
- Explaining the properties of sound through relating these to the wave model.
- Describing our use of the electromagnetic spectrum in technological devices.
- Identifying communication and data storage technologies that use electromagnetic waves.
- The use of reflection and refraction of electromagnetic waves in communication technologies.

#### Electrical Energy in the Home
- Identifying society's dependence on electricity and how it can be provided in remote locations.
- Describing the features of electrical circuits and moderators of current conductivity.
- Explaining the difference between series and parallel circuits and their use in the home.
- Identifying the unit of power as the rate at which energy is transformed in the home.
- Identifying that electric currents also produce magnetic fields, which are used in domestic devices.

#### Moving About
- Describing the velocity of a vehicle using equations and presenting this information graphically.
- Analysing the forces that contribute to the acceleration and deceleration of a vehicle.
- Understanding that moving vehicles have kinetic energy and describing the energy transformations that occur in collisions.
- Explaining that collisions involve a change in momentum.
- Identifying the safety devices introduced in vehicles to reduce the effects of changing momentum.

#### The Cosmic Engine
- Identifying the Big Bang as the huge release of energy that transformed into matter.
- Describing the features of stars and that some large stars eventually explode to form supernovas.
- Identifying that the sun provides electromagnetic radiation and particles that affect Earth.
- Describing the nature of nuclear radiation that may be emitted from atoms.

#### HSC Course

#### Space
- Identifying the features and effects of Earth's gravitational field using equations.
- Describing the trajectory of an object undergoing projectile motion on Earth.
- Explaining the forces acting on an astronaut during rocket launch and while maintaining orbit.
- Analysing the forces involved in satellites continuously orbiting the Earth.
- Relating Newton's Law of Universal Gravitation to the motion of satellites.
- Explaining our current understanding of time using Einstein's principle of relativity.

#### Motors and Generators
- Identifying the motor effect is due to a force acting on a conductor in a magnetic field.
- Describing the work of Faraday in the generation of electric current by moving magnets.
- Comparing the structure and function of electric motors and large scale power generators.
- Describing the purpose of transformers as modulators of voltage in electrical circuits.

#### From Ideas to Implementation
- Understanding the features of cathode rays and their application in television screens.
- Describing the contributions of scientists in developing our understanding of the photoelectric effect and black body radiation.
- Describing the technological limitations and subsequent research that lead to the development of transistors, now used in microchips and microprocessors.
- Explaining the ability of particular metals to exhibit the property of superconductivity, leading to applications such as the maglev train.

#### Medical Physics
- Identifying the features of ultrasound waves and their applications as diagnostic tools.
- Identifying the properties of electromagnetic waves that can be used to diagnose medical conditions.
- Explaining the use of diagnostic techniques including X-rays, positron emission tomography (PET), computed axial tomography (CAT) and magnetic resonance imaging (MRI).
### Senior Science

#### Preliminary Course

| Water for Living | • Identifying the role of water as part of living organisms and in the maintenance of Australian environments.  
• Describing the impact of human activity on water quality as water pollution.  
• Investigating strategies to reduce water pollution and wastage.  
• Examining water quality and treatment at the local level. |
| Plants | • Understanding basic plant structure and function.  
• Exploring the conditions under which seed germination and seedling growth occurs.  
• Examining the water requirements of different plants.  
• Identifying the role of asexual reproductive techniques in Australian native plants.  
• Explaining the importance of maintaining genetic diversity in plants. |
| Humans at Work | • Identifying the role of Occupational Health and Safety legislation in the workplace.  
• Identifying and minimising the risk of damage to the respiratory system.  
• Understanding eye structure, the types of eye injuries that can occur and how these can be prevented.  
• Identifying ways to reduce damage to the ear caused by excessive sound.  
• Identifying the importance of helmet protection in the prevention of brain injury.  
• Identifying techniques that help prevent injury to the musculoskeletal system. |
| Local Environment | • Understanding the role of abiotic and biotic factors in the composition of ecosystems.  
• Explaining that energy and matter flow through continual cycles in ecosystems.  
• Exploring the features of a local aquatic or terrestrial ecosystem.  
• Examining the variable impact of humans on aquatic and terrestrial ecosystems. |

#### HSC Course

| Lifestyle Chemistry | • Exploring the physical and chemical properties of chemical substances used in our daily lives.  
• Investigating the composition of cleaning products and how they work.  
• Understanding the structure and function of the skin, and the requirements of soaps, cleansers and shampoos used on the skin.  
• Examining the various formulations of medicines and the use of alcohol or water as a solvent in external medications.  
• Understanding the relationship between drug solubility in the body and its mode of administration. |
| Medical Technology - Bionics | • Identifying the impact of scientific understanding and technological advances on quality of life.  
• Understanding the structure and function of the heart, and examining the medical advances that have improved the life expectancy for people with heart defects.  
• Investigating the range of technologies that are used in joint replacements.  
• Examining the effect and use of life support systems.  
• Exploring the range of medical techniques that are used to diagnose and treat medical conditions. |
| Information Systems | • Identifying the range of information systems that are used in our daily lives.  
• Understanding the use of electromagnetic radiation in communication technologies.  
• Exploring the use of digital technologies in the transfer of information.  
• Investigating the use of fibre optic cables as carriers of information in communication systems. |
| Disasters | • Identifying the types of disasters that can occur from natural or man-made causes.  
• Exploring the use of satellites and radar technology as a means to understand weather patterns and predict tropical cyclones and tornados.  
• Understanding the causes of earthquakes and bushfires, and the ways these unpredictable disasters can be monitored.  
• Identifying the warning devices used in buildings and the range of emergency services that coordinate their efforts to prevent loss of life in bushfires. |
### Earth and Environmental Science

#### Preliminary Course

<table>
<thead>
<tr>
<th>Planet Earth and Its Environment - A Five Thousand Million Year Journey</th>
</tr>
</thead>
</table>
| • The solar system has evolved from a ball of gases released from a supernova explosion.  
• The early Earth and its evolution.  
• Living cells originated at a time when the atmosphere and environments were different to those presently found on Earth.  
• The evolution of photosynthesis shifted the balance of gases in the atmosphere.  
• The evidence provided by geological records suggests that there have been climatic variations over Earth's history. |

<table>
<thead>
<tr>
<th>The Local environment</th>
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</table>
| • Rocks are formed from different materials.  
• The properties of local soils affect the local biological environment.  
• The impact of humans on local aquatic and terrestrial environments will differ with locality.  
• The need for governments and local councils to design and enact laws to protect the biotic and abiotic environment.  
• The activities of humans can cause systematic habitat alteration.  
• Biodiversity assists in keeping a dynamic balance in the biosphere. |

<table>
<thead>
<tr>
<th>Water</th>
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</table>
| • Biodiversity assists in keeping a dynamic balance in the biosphere.  
• Water is an important ingredient in the maintenance of Australian environment.  
• Water plays an important part in weathering and the subsequent production of soils.  
• Water resources. |

<table>
<thead>
<tr>
<th>Dynamic Earth</th>
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</table>
| • Evidence that the Australian continental land mass began developing 4.1 thousand million y.a.  
• Crustal plates move and their edges are marked by tectonic activity.  
• Magnetic patterns and volcanic activity provide further evidence of plate divergence.  
• The interaction of plates during subduction, collision and breakup.  
• Australia has been separated from other continents by plate tectonic motion. |

### HSC Course

<table>
<thead>
<tr>
<th>Tectonic Impacts</th>
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</table>
| • Lithospheric plates and their motion; Plate tectonics and climate.  
• The movement of plates results in mountain building.  
• Continents evolve as plate boundaries move and change.  
• Natural disasters are often associated with tectonic activity and environmental conditions caused by this activity may contribute to the problems experienced by people. |

<table>
<thead>
<tr>
<th>Environments Through Time</th>
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</table>
| • Evidence from early Earth indicates the first life forms survived in changing habitats during the Archean and Proterozoic eons; the environment of the Phanerozoic eon.  
• The Cambrian event; exploring new environments.  
• Past extinction and mass extinction events. |

<table>
<thead>
<tr>
<th>Caring for the Country</th>
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</table>
| • Australia's land surfaces exhibit the effects of long periods of weathering and erosion.  
• Soil as a resource that requires careful management; the salinity of soils and water.  
• The effect of excessive use and long-term consequences of using some pesticides.  
• Maintenance of environmental flows and natural processes in water.  
• The result of the Industrial Revolution on the atmosphere and hydrosphere.  
• Rehabilitation and safe use of previously contaminated sites. |

<table>
<thead>
<tr>
<th>Option Topics: (one to be studied)</th>
</tr>
</thead>
</table>
| • Introduced Species and the Australian Environment  
• Organic Geology - A Non-renewable Resource  
• Mining and the Australian Environment  
• Oceanography |
Choosing a Science Subject - Careers in Science

- **Senior Science** is a good choice if you enjoy science and would like to develop a well-rounded understanding of the subject without the focus on a specific discipline.

- **Biology** is a natural science concerned with the study of life and living organisms, including their structure, function, growth, evolution, distribution and taxonomy, and the crucial role they have in our everyday existence.

- **Chemistry** is the study of the composition, structure, properties and change of matter. Studying chemistry provides the necessary foundation to pursue a wide variety of useful, interesting and rewarding careers.

- **Earth and Environmental Science** includes environmental geology, environmental soil science, volcanic phenomena and evolution of the Earth’s crust.

- **Physics** is the natural science that involves the study of matter and its motion through space and time, along with related concepts such as energy and force.

<table>
<thead>
<tr>
<th>Earth and Environmental Science</th>
<th>Physics and Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquarist</td>
<td>Architect</td>
</tr>
<tr>
<td>Climate Change Analyst</td>
<td>Automotive Engineer</td>
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<tr>
<td>Diver</td>
<td>Biochemical Engineer</td>
</tr>
<tr>
<td>Emergency Management Specialist</td>
<td>Biofuel or Biodiesel Technology</td>
</tr>
<tr>
<td>Environmental Compliance Inspector</td>
<td>CAD Technician</td>
</tr>
<tr>
<td>Environmental Scientist</td>
<td>Civil Engineers</td>
</tr>
<tr>
<td>Geographer</td>
<td>Commercial &amp; Industrial Designer</td>
</tr>
<tr>
<td>Geoscientist</td>
<td>Electrical &amp; Electronics Engineer</td>
</tr>
<tr>
<td>Hydrologist</td>
<td>Engineering Manager</td>
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<tr>
<td>Meteorologist</td>
<td>Environmental Engineer</td>
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<tr>
<td>Park Ranger</td>
<td>Industrial Engineer</td>
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<tr>
<td>Soil and Water Conservationist</td>
<td>Landscape Architect</td>
</tr>
<tr>
<td>Soil Scientist</td>
<td>Materials Scientist and Engineer</td>
</tr>
<tr>
<td>Water &amp; Liquid Waste Treatment</td>
<td>Mechanical Engineer</td>
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<tr>
<th>Chemistry</th>
<th>Biology</th>
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<tbody>
<tr>
<td>Chemistry Teacher</td>
<td>Biology Teacher</td>
</tr>
<tr>
<td>Analytical Chemistry</td>
<td>Agricultural Inspector</td>
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<tr>
<td>Atmospheric Chemistry</td>
<td>Agricultural Technician</td>
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<tr>
<td>Biochemistry</td>
<td>Athletic Trainer</td>
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<tr>
<td>Chemical Engineering</td>
<td>Biochemist</td>
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<tr>
<td>Chemical Information Specialist</td>
<td>Biological Technician</td>
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<tr>
<td>Consumer Products</td>
<td>Biologist</td>
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<tr>
<td>Environmental Chemistry</td>
<td>Nutritionist</td>
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<tr>
<td>Environmental Law</td>
<td>Marine Biologist</td>
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<tr>
<td>Food Chemistry</td>
<td>Microbiologist</td>
</tr>
<tr>
<td>Forensic Science</td>
<td>Plant Scientist</td>
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<tr>
<td>Medicine</td>
<td>Veterinarian</td>
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<tr>
<td>Hazardous Waste Management</td>
<td>Veterinary Technologist &amp; Technician</td>
</tr>
<tr>
<td>Inorganic Chemistry</td>
<td>Zoologist and Wildlife Biologist</td>
</tr>
</tbody>
</table>

**NOTE**

- Many of these careers will require the study of more than one science subject.
- All science subjects involve a variety of practical experiences in addition to theory.
- Preliminary Senior Science **cannot be studied with** any other Preliminary science course.
- Students may elect to undertake one or more of the Preliminary Biology, Chemistry or Physics courses.
- Students who have completed Preliminary Biology, Chemistry, Physics or Earth and Environmental Science but do not wish to continue on to the HSC in that course can elect to undertake the Senior Science HSC course.
HUMAN SOCIETY AND ITS ENVIRONMENT (HSIE)

Ancient History

Ancient History is a 2 Unit course that enables students to acquire knowledge and understanding, historical skills, and values and attitudes essential to an appreciation of the ancient world; to develop a lifelong interest and enthusiasm for ancient history; and to prepare for informed and active citizenship in the contemporary world.

Students will be given the opportunity to study topics in at least two of the following areas for both preliminary and HSC courses:

- Egypt
- Near East
- Greece
- Rome

The Preliminary course allows 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;
- An historical investigation of their own choice

The HSC course is comprised of four sections:

- Part I - Core Topic: Cities of Vesuvius – Pompeii and Herculaneum
- Part II – Ancient Societies
- Part III – Personalities in their time
- Part IV – Historical Period

For the HSC, there are many topics for the students to choose from. They include

- Egypt – New Kingdom Egypt, Hatshepsut, Akhenaten
- Greece – Spartan Society, Persian Wars, Bronze Age Greece
- Rome – Julius Caesar, Fall of the Republic, The Roman Empire
- Near East – Xerxes, Hannibal, Assyrian Society

Students interested in further studies in History might also choose Extension History after they have completed a senior history course.
Modern History

The Preliminary course is designed to provide students with opportunities to investigate the Twentieth Century World, and the causes of World War One as well as events and societies in a range of historical contexts as a background for their more specialised HSC studies.

- Who killed JFK? (Historical Investigation)
- The Fall of the Romanovs
- Revolutions (Cuba, Iran, French and Chile)
- World at the 20th Century

The HSC course provides students with an opportunity to investigate change and continuity in the Twentieth Century. The Core Topic is World War One. Students will also examine a National Study, a Personality and an International Study in Peace and Conflict.

CORE:

- World War I
- Russia (Russian Revolution)
- Indochina Conflict
- Arab-Israel Conflict
- The Cold War
- Leon Trotsky (Personality Study)
- Germany (World War II)
- Albert Speer (Personality Study)

Extension History (1 Unit)

This additional unit for Ancient and Modern History students will be completed in Year 12 only. Its focus is Historiography: the history of History! Students also complete a Historical Investigation of their own choice.

Please note that this course is only offered to students who are enrolled in either Modern or Ancient History. The main topic that is covered via historiography is: what is History? Via readings and Case Studies.

Students need to be motivated to complete a History Investigation (project), which involves keeping a logbook plus their own research and investigation of the topic of their choice. This will be presented in the form of an annotated exposition/Bibliography.
Business Studies

Business Studies is interesting because it encompasses both the theoretical and practical aspects of business and management in contexts which students will encounter in life.

Students investigate business establishment and operations and use a range of business information to assess and evaluate business performance. Students do a major business research task on a local business where they have the opportunity to learn firsthand from small business owners in their local area. A significant feature of Business Studies is its relevance to the full range of senior students as it provides useful knowledge and skills applicable to both employment and/or other post-school educational courses. Many students combine Business Studies with Economics, Legal Studies, Geography and/or Retail Operations, as these courses reinforce concepts and subject material in some instances and are useful in future study and careers.

Students will benefit from the study of this subject if they engage in future studies that include: business, commerce, international business, economics, accounting and finance, media, law, marketing, employment relations, tourism.

Business Studies can lead to business ownership or careers in Australia and around the world in: share, finance or commodities markets; business; banking; insurance; property development and management; development projects; government, employment relations, industrial relations, tourism.

Preliminary Course Description:
The Preliminary course is based on a study of three compulsory topics and the completion of a Business Research Task. It investigates and analyses the nature, role and functions of business and the impact of the internal and external environment on businesses.

Preliminary Course Structure
Topics covered:
1. The Nature of Business
2. Business Management
3. Business Planning

HSC Course Description:
The HSC course investigates and analyses the business functions and their impact on business success in Australia as well as evaluates the processes and operations in global business.

HSC Course Structure
Topics covered:
1. Operations
2. Marketing
3. Finance
4. Human Resources
**Economics**

Economics is a challenging, analytical subject that provides an understanding for students about many aspects of the economy and its operation that are frequently reported in the media. With this understanding students can make informed judgements about economic issues and policies in Australia. Students will benefit from the study of this subject if they engage in future studies that include: business, accounting and finance, media, law, marketing, employment relations, tourism or environmental studies.

Economics can lead to careers in Australia and around the world in: share, finance or commodities markets; economics, business; economic forecasting; banking; industrial relations, insurance; property development and management; government; environment management; town planning; foreign affairs or economic policy development, economic advisors to international organisations such as the World Bank and the IMF. It is **not** necessary to have studied Commerce to be successful in this subject.

Many students combine Economics with Business Studies, Legal Studies, Geography and/or Retail Operations, as these courses reinforce concepts and subject material in some instances and are useful in future study and careers.

**Preliminary Course Description:**

The Preliminary course examines the economic behaviour of consumers, businesses and governments with an emphasis on the operation of markets.

**Preliminary Course Structure: Topics covered**

- Topic 1: Introduction to Economics
- Topic 2: Consumers and Business
- Topic 3: Markets
- Topic 4: Labour Markets
- Topic 5: Financial Markets
- Topic 6: Government in the Economy

**HSC Course Description:**

The HSC course investigates the impact of the global economy on the Australian economy and the link between economic issues and the management of an economy, with specific reference to the Australian economy, and a case study of one other economy.

**HSC Course Structure**

**Topics covered:**

- Topic 1: The Global Economy
- Topic 2: Australia’s Place in the Global Economy
- Topic 3: Economic Issues
- Topic 4: Economic Policies and Management
Legal Studies

Legal Studies provides an understanding of the legal system, its principles, structures, institutions and processes. Students enjoy this subject because it gives them the confidence to question and evaluate the legal and democratic structures in which they live. The subject provides a flexible learning structure in lessons by encouraging diverse opinions. It provides an excellent foundation for further education and employment because students acquire skills in analysis, research and the development of coherent arguments.

Students will benefit from the study of this subject if they engage in future studies that include: law, economics, business, accounting and finance, media, journalism, industrial relations, environment, science, medicine - the list goes on as the law relates to all aspects of life and society.

Legal Studies can lead to occupations such as: lawyers, judges, researchers, legal secretaries, detectives, Work cover lawyers or inspectors, union officials, business executives, government advisors, advisors to international bodies such as the World Bank or United Nations. Many students combine Legal Studies with Business Studies, Economics, Geography and/or Retail Operations, as these courses reinforce concepts and subject material in some instances and are useful in future study and careers.

Preliminary Course Description:
The Preliminary course develops students’ knowledge, understanding and skills regarding the nature and social functions of law, sources of law, the powers of governments in Australia and how the legal system operates.

Preliminary Course Structure - Topics covered:
Part 1 - The Legal System
Part 2 - The Individual and the Law
Part 3 - The Law in Practice

HSC Course Description:
The HSC course has been developed to provide students the knowledge, understanding and skills of the Australian legal system and promotes a just and fair society of cultural diversity at local, national and international levels.

HSC Course Structure - Topics covered:
PART I CORE: Crime
PART II CORE: Human Rights
PART III: Options
  • Consumers
  • Global Environment Protection
  • Family
  • Indigenous Peoples
  • Shelter
  • Workplace
  • World Order
Geography

Geography is a subject for everyone.

With environmental issues like climate change and water shortages making the headlines every day, the skills of Geographers are increasingly in demand.

Studying Geography prepares students for post-school studies and future employment and for active participation as informed citizens. Students of all abilities and backgrounds can enjoy and study Geography. Geographers can find jobs in town planning, environmental management, tourism, ecotourism, GIS (Geographical Information Systems), national parks, big business, surveying, heritage management, aviation, meteorology, wildlife ecology, forestry, hydrology, biogeography, urban and regional planning, overseas development projects, banking, government, documentary and film making.

Many students combine Geography with Business Studies, Legal Studies, Economics and/or Retail Operations, as these courses reinforce concepts and subject material in some instances and are useful in future study and careers.

Preliminary Course Description:
The Preliminary Course studies spatial and ecological dimensions of our changing world. Students use a range of geographical tools and skills, including geographical inquiry as part of the Senior Geography Project (SGP). The SGP is a major research assignment that allows students to undertake action research into a geographic issue that concerns them.

Preliminary Course Structure
Topics covered:
Topic 1: Biophysical Interactions (eg. Climate, global warming, acid rain)
Topic 2: Global Challenges (including “Options” such as ‘Development Geography’)

HSC Course Description:
The HSC Course includes geographical investigations of the functioning and management of ecosystems at risk including a case study of beautiful Ha Long Bay in Vietnam, cities such as London and New York, and economic activity within local and global contexts. A visit to the Aquarium and its surrounding urban area is undertaken.

HSC Course Structure
Topics covered:
Topic 1: Ecosystems at Risk
Topic 2: Urban Places
Topic 3: People and Economic Activity
CREATIVE AND PERFORMING ARTS (CAPA)

Dance

The senior Dance elective involves three core areas: Performance, Composition and Appreciation.

Performance is a collaboration of skill and communication of intent through movement. Students demonstrate their strengths in a compulsory performance which is choreographed by the teacher.

Composition allows for students to develop an intent and compose movement to represent their ideas and communicate this to an audience. The student will refine and revise motifs to create an overall “story” which will be performed by younger students in the school.

In Appreciation, students study two mandatory performances in detail and discuss the reasons behind the choreographer’s intents and motivation. During the study of these two performances students will look at the compositional process of a professional and how they work in collaboration with music, movement and costume.

All dance taught and studied in the senior syllabus is based on contemporary dance.
Music

2 Unit Board Developed ATAR Course

SUBJECT DESCRIPTION
In the Preliminary course, experiences revolve around Performance, Composition, Musicology and Aural. In the HSC Course these experiences are used and further developed. It is not essential that you can read music, but it is an advantage if you can already sing or play an instrument.

The subject core consists of the knowledge and understanding of musical concepts and skills involved through the study of contexts (style, period and genre). Three topics will be studied in the Preliminary course and a further three subjects in the HSC Course. There is a list of 22 topics to choose from, ranging from medieval music to jazz and rock.

ASSESSMENT REQUIREMENTS
The subject is divided into 4 areas of assessment: Performance, Composition, Aural and Musicology. Each area has equal weighting (25%) in assessment in the Preliminary Course.

In the HSC Course assessment can be tailored to individual requirements. Below is a brief description of these areas.

Performance: To participate in any form of practical music making. Performance skills should be developed by playing in a number of styles, media and genres.

Musicology: Refers to the study of musical styles and genres from a number of perspectives. These include historical, sociological, notational and analytical.

Aural: Refers to the ability to discriminate sounds and to make judgements about their use. It is an integral part of all activities associated with performances, composition and musicology.

Composition: Refers to the organisation of sounds. We will have a state-of-the-art computer technology workstation that aids in this creative process.

In the HSC Course, students choose 3 electives from performance, musicology, and composition. These can be chosen in any combination (e.g. 2 performance electives and 1 composition elective, 1 musicology elective and 2 composition electives, 3 performance electives etc).

CAREER POSSIBILITIES
Very broad - ranging from Musician, Sound Engineer, Teacher, Composer, Radio Music Programmer, Director, Public Relations and Publicity Officer, Film and Television Editor, Recreation Officer, DJ, Music or Film Critic, Child Care Worker, Music Therapist.
Visual Arts

2 Unit - Board Developed ATAR Course (50% Practical, 50% Theory)

Visual Arts Stage 6 is offered as a course for students with a variety of abilities, interests and needs. The course caters for the full range of students through learning opportunities based on a flexible content structure consisting of practice (art making, art criticism and art history), the conceptual framework (artist, artwork, world, audience) and the frames (subjective, cultural, structural and postmodern). These aspects of content can be engaged more broadly and deeply as students develop increasing autonomy in their practical and theoretical understanding, knowledge and skills.

The Preliminary course provides students with a broadly based experience, enabling them to develop an understanding of the Visual Arts. The HSC course allows opportunities for students to build on their understandings through deeper and increasingly more independent investigations in art making and critical and historical studies.

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

In the Preliminary course teachers will assist students with their selection of content (e.g. a focus on artists and their works, consideration of the audience and artworks, the cultural values or subjective values of art). This approach provides the foundation for more interpretive ways of approaching content in the HSC course and building greater sophisticated and subtle understanding (e.g. a focus on how each of the frames affects understanding of practice, consideration of the role of the postmodern frame on artists and artworks).

Preliminary Course learning opportunities focus on:

- The nature of practice in art making, art criticism and art history through different investigations
- The role and function of artists, artworks, the world and audiences in the art world
- The different ways the visual arts may be interpreted and how students might develop their own points of view
- How students may develop meaning, focus and interest in their work
- Building understandings over time through various investigations and working in different forms.

HSC Course learning opportunities focus on:

- Students developing their own practice of art making, art criticism, and art history
- Students developing their own informed points of view in increasingly independent ways and using different interpretive frameworks in their investigations
- Students learning about the relationships between artists, artworks, the world and audiences within the art world
- Students further developing meaning and focus in their work.
Each student produces a Body of Work that contributes to 50% of the HSC course. Students complete a 1½ hour exam and a series of case studies (a minimum of FIVE) should be undertaken with students in the HSC course. Case studies should be 4-10 hours in duration which all contribute to 50% of the HSC course.

Students are expected to undertake research, homework and practical tasks out of school hours. Students who study this course will need to develop good research and essay writing skills. Students will complete a range of assessment tasks in this course including practical assessments, research activities, oral presentations and examinations. Works developed for assessment in PVDI are not to be used either in full or in part for assessment in the Visual Art course.

Cost:

**Preliminary**
$45.00 which covers the use of materials and VAPD

**HSC**
$45.00 which covers the use of some materials and VAPD
Students may need to purchase extra materials for their BOW which can be purchased from the school or externally.

**Careers**

You would study Visual Arts to become an illustrator, art curator, art teacher, gallery owner, artist, police sketch artist, photographer, graphic designer, web designer, film maker, camera operator, cinematographer, publicist, photo journalist, television editor, production manager, visual communicator, wildlife photographer, advertising executive, software gamer or fashion photographer.
Personal Development, Health and Physical Education (PDHPE) is an integrated area of study that provides for the intellectual, social, emotional, physical and spiritual development of students.

It involves students 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 movement, which lead to enhanced movement potential and appreciation of movement in their lives.

Young people are growing up in a world of rapid change. Expanding technologies, new social structures, shifting community values and emerging environmental issues are complex interrelated factors that affect the way individuals live their lives. At a time when there is tremendous opportunity for good health there are numerous conflicting influences on lifestyle.
Family and Community Studies

What is this course about?

Contemporary society is characterised by rapid social and technological change, cultural diversity, conflicting values and competitive pressures. Developing understanding about society and living in society requires a comprehensive knowledge of its complex nature.

Community and Family Studies draws upon selected components of family studies, sociology, developmental psychology and students' general life experiences. It focuses on skills in resource management that enable people to function effectively in their everyday lives, in families and communities.

This course develops an understanding of the diverse nature and interdependence of families and communities in relation to the changing nature of Australian society.

What will be studied?

Preliminary Course
Resource Management
* Basic concepts of the resource management process (20%)
* Individuals and Groups
* The individual's roles, relationships and tasks with groups (40%)
* Families and Communities
* Family structures and functions and the interaction between family and community (40%)

HSC Course
Research Methodology
* Ethical research procedures culminating in the production of an Independent Research Project (25%)

Groups in Context
* The needs of specific community groups (25%)

Parenting and Caring
* Individuals and groups who adopt roles in parenting and caring in contemporary society (25%)

HSC Option Modules
One Option from the following:
Family and Social Interactions
* How government and community structures support and protect family members throughout the lifespan (25%) or
Social Impact of Technology
* The impact of evolving technologies on individuals, families, work and communities (25%) or
Individuals and Work
* Contemporary issues confronting families as they manage their roles within both their family and work environments (25%)

**What do students have to do to get the Higher School Certificate in this course?**

As part of the HSC, students are required to complete an Independent Research Project. The focus of the Independent Research Project should be related to the course content of one or more of the following areas: individuals, groups, families, communities, resource management.

Students must satisfactorily complete all course and assessment requirements and sit a three hour written examination at the HSC.

**Who should choose to study this course?**

Students who wish to develop the knowledge and skills which will assist them to efficiently manage their lives. This course will help students to make decisions about real life situations and an interest in working with people.

**Where can this course lead?**

This course will equip students generally to participate in a changing society. It would be excellent background for students interested in careers which involve close interaction with people particularly relating to social welfare and community support organisations and education, especially early childhood education.
Design and Technology

Design and Technology has a unique focus on creativity, innovation and the successful implementation of innovative ideas. Students will investigate the importance of evaluation, management, communication and collaborative design, as well as exploring current and emerging technologies. Through the completion of quality design projects, students are provided with the opportunity to develop specific production and manufacturing skills.

Preliminary Course Structure

The Preliminary course will involve a minimum of two design projects. The projects will develop skills and knowledge to be further developed in the HSC course. Each project will place emphasis on the development of different skills and knowledge in designing and producing. Students should 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. They will develop skills in using the following materials:

- Timber
- Metals
- Plastics
- Electronics
- Computer Aided Design software

Design projects must involve the design, production and evaluation of a product, system or environment that includes evidence of design processes recorded in a design folio, which may be in a variety of different forms. Students should be encouraged to communicate their design ideas using a range of appropriate media. Some design projects completed in the past have included iPod docks and desk organisers.

HSC Course Structure

The HSC course includes the development and realisation of the major design project and a case study of an innovation and emerging technologies. The major design project involves students selecting and applying appropriate design, production and evaluation skills to a product, system or environment which satisfies an identified need or opportunity. Students have developed a wide range of skills and knowledge in the Preliminary course and in the HSC course are able to select and use those skills and knowledge appropriate to their selected project. The students relate the techniques and technologies used in industrial and commercial settings to those used in the development of their major design project. Major projects completed by students in the past have included:

- graphic novels
- car stereo systems
- landscaping
- architecture
- furniture and product design

Course Requirements: Students studying Design and Technology are required to wear enclosed leather/suede footwear.

This course attracts a course fee of $120 for Prelim and HSC.
Food Technology

Are you interested in...?
- * Nutrition?
- * Food issues?
- * How food products are developed?
- * Food experiments?
- * Finding out how food from the farm, makes it into your local supermarket?

Then Food technology is for you!

Food Technology is useful to everyone, as we all deal with food every day. This subject would also be useful if you were considering a career in the following areas:
- * Dietician
- * Nutritionist
- * Hospitality
- * Production & Processing of Food in an industrial setting
- * Market Research of Food
- * Catering
- * Management
- * Tourism
- * Food Retail

What you will learn?

Skills will be developed in researching, analysing and communicating food issues, food preparation, and the design, implementation and evaluation of solutions to food situations.

Is there a pre-requisite for this course?
No, there is no pre-requisite study for this 2 unit course.

It is a mandatory requirement that students undertake practical activities?
Such experiential learning activities are specified in the 'learn to' section of each strand.

What will be studied?

Preliminary Course
- * Food Availability and Selection (30%)
- * Food Quality (40%)
- * Nutrition (30%)

HSC Course
Core Topics:
- * The Australian Food Industry (15%)
- * Food Manufacture (30%)
- * Food Product Development (30%)

One Option from the following:
- * Contemporary Food Issues: Nutrition (25%)
- * Contemporary Food Issues: Marketplace (25%)

Course Requirement: Students studying Food Technology are required to wear enclosed leather/suede shoes

This course attracts a course fee of $80 for Prelim and HSC.
Information Processes and Technology

**What is this course about?**
Information systems and the role they play in society have increased in significance in recent years. The raw ingredients - information, information technology and participants - combine to form information processes within information systems.

Fields which have not been traditionally associated with computers, but in which processing information is a vital function, are emerging as exciting new areas of employment. These include music, the arts, science and technology as well as the new and fast-growing industries that use multimedia.

Information Processes and Technology is the study of computer based information 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.

**What will be studied?**

**Preliminary Course**
* Introduction to Information Skills and Systems (20%)
* Tools for Information Processes (40%)
* Planning, Design and Implementation (20%)
* Personal and Group Systems and Projects (20%)

**HSC Course**

* Project work (20%)
* Information Systems & Databases (20%)
* Communication Systems (20%)

**Two Options from the following:**
* Transaction Processing Systems
* Decision Support Systems
* Automated Manufacturing Systems
* Multimedia Systems

**What do students have to do to get the HSC in this course?**
All students must satisfactorily complete all course and assessment requirements. Students must sit for a three hour written examination at the Higher School Certificate.

**Who should choose to study this course?**
This course caters for a wide range of students with a keen interest in information technology and computing. It will be of value to students who intend to proceed to tertiary studies in any field as well as related computing fields.

**Where can this course lead?**
Study of Information Processes and Technology may lead to further study in related areas at either university or TAFE. It will enhance studies in other fields which utilise various information systems and technologies.
Industrial Technology – Automotive (College 2 ONLY)

Industrial Technology Stage 6 seeks to raise students’ awareness of the interaction between technology, industry, society and the environment, and to develop their ability to make value judgements about issues, decisions and problems arising from this interaction. Students achieve these through applying practical experiences to the study of the technology, management and organization of industry.

Industrial Technology is offered in the following three areas as separate classes: 1. Automotive 2. Timber 3. Multimedia

Please Note: Students may only study ONE of these courses.

The Preliminary Course in each of the focus areas will be 120 indicative hours of project work and an industry study that provide a broad range of skills and knowledge related to the focus area selected by the student and an introduction to industrial process and practices.

The core content in each of the focus areas address the same major topics but are studied in the context of the selected focus area. The major topics studied are:

- Industry Study
- Design and Management
- Workplace Communication and Production
- Industry Specific Content

The HSC Course will be 120 indicative hours where students will study and/or reinforce the above learning in their construction of a major project of their choice and a management folio. We have industry partnerships that may be consulted with to assist in the completion of a high quality major project. The final grade/mark scored in HSC will be made up of 60% Major Project and 40% Exam.

- Students cannot study more than one Industrial Technology course.
- The major project is to be sourced and funded by the student.

Outline of the Preliminary Course

Industrial Technology: Automotive explores the fundamentals of the Automotive industry. This includes a preliminary project, where the student needs to source the resources (for example: inoperative 4-stroke lawnmower) needed to complete the project at school.

Outline of the HSC Course

Students will need to provide and construct a major project which will demonstrate knowledge and skills related to Automotive, this will be supported by management folio. All major projects must demonstrate skills in:

- Mechanical
- Electrical
- Bodywork

Course Requirement: Students studying IT – Automotive are required to wear enclosed leather/suede shoes

This course attracts a course fee of $70 for Prelim and HSC.
Industrial Technology – Timber

What is this course about?
Much of Australia’s economic, social and cultural development can be related to the capacity of our industries to develop and use technology in the manufacture of goods and services. The effective and responsible application of industrial technologies has a direct bearing upon the quality of our lives. For this reason, the study of industrial technology and its role in industry is relevant and purposeful for many students.

Industrial Technology consists of project work and Industry Study that develop a broad range of skills and knowledge related to a chosen industry focus area and an introduction to industrial processes and practices.

Industrial Technology is offered in the following three areas as separate classes: 1. Automotive 2. Timber 3. Multimedia

Please Note: Students may only study ONE of these courses.

What will be studied?
The following sections are taught in relation to the relevant focus area:
* Industry Study
* Design and Management
* Workplace Communication and Production
* Industry Specific Content

Do students need anything special to do this course?
A subject contribution is required each year. The materials necessary for the Major Project are at the students’ own expense.

What do students have to do to get the HSC in this course?
Students must satisfactorily complete all course, assessment and examination requirements. Students must present a completed practical project and design folio for marking by external examiners. The one and a half hours written paper is worth 40 marks; the major project is worth 60 marks.

Who should choose to study this course?
This course has been designed for all students including students who wish to pursue a career in Industry. Studying this course will help develop in students, knowledge, skills and attitudes of value to all employers. Students who enjoy a practical ‘hands-on’ approach to study will find this course very rewarding.

Where can this course lead?
Career options related to Industrial Technology - Timber include:
* any associated trade      * building industry      * project management

This course attracts a course fee of $80 for Prelim and HSC.

Course Requirement: Students studying IT - Timber are required to wear enclosed leather/suede shoes
Industrial Technology - Multimedia

Industrial Technology Stage 6 seeks to raise students’ awareness of the interaction between technology, industry, society and the environment, and to develop their ability to make value judgements about issues, decisions and problems arising from this interaction. Students achieve these through applying practical experiences to the study of the technology, management and organization of industry.

Industrial Technology is offered in the following three areas as separate classes: 1. Automotive         2. Timber         3. Multimedia

Please Note: Students may only study ONE of these courses

IT Multimedia offers students the opportunity to study the interrelationships of technologies, equipment and materials used by industry and to develop skills through the process of design, planning and production.

The Preliminary course in each of the focus areas will be 120 indicative hours of project work and an industry study that provide a broad range of skills and knowledge related to the focus area selected by the student and an introduction to industrial process and practices.

The core content in each of the focus areas address the same major topics but are studied in the context of the selected focus area. The major topics studied are:

- Industry Study
- Design and Management
- Workplace Communication and Production
- Industry Specific Content

The HSC Course will be 120 indicative hours where students will study and/or reinforce the above learning in their construction of a major project of their choice and a management folio. We have industry partnerships that may be consulted with to assist in the completion of a high quality major project. The final grade/mark scored in HSC will be made up of 60% Major Project and 40% Exam. The major project is to be sourced and funded by the student.

This course attracts a course fee of $20 for Prelim and HSC.

Reasons why you would choose this Course: This course has been designed to be inclusive of the needs, interests and aspirations of students and it provides them with opportunities to learn explicitly about an industry. It also caters for students who wish to take further study in the multimedia industry and university level of industry training. Therefore the skills and knowledge gained through the study of Industrial Technology enable students to make positive contributions to society.

Course Requirement: Students studying IT - Multimedia are required to wear enclosed leather/suede shoes
Software Design and Development

2 Unit – Board Developed ATAR Course

Software Design and Development (SDD) focuses on the development of computer based solutions and computer programs that require the design of computer software.

Students interested in the fields of software development and computer science will find this subject of value. The subject is not only for those who seek further study or careers in this field, but also for those who wish to understand the underlying principles of software design and development.

Students develop skills in programming using a number of programming languages. These are ActionScript, Prolog and Java.

During the Preliminary course students learn about concepts and issues in the development of software, social and ethical issues, hardware and software development, (software developments cycle) and work as part of a team to develop a software solution.

During the HSC course students work through the same issues and processes as the Preliminary course at a more complex level. Both the Preliminary course and the HSC course culminate in the development of a software package.

The course requires that students complete a major group software design project in year 11 and a major individual project in year 12. Some projects created by students in the past are - games (driving, flying, survival, platformers) and real life simulators.

This course attracts a course fee of $20 for Prelim and HSC.

Course Requirement: Students studying IT - Multimedia are required to wear enclosed leather/suede shoes.
Work Studies

What is this course about?
Work Studies can equip students to make more informed decisions about their future study and employment pathways. Many of the occupations which our students will undertake after leaving school currently do not yet exist.

The course assists students to prepare for such a future by allowing students to acquire general work-related knowledge, skills and attitudes, transferable across a number of occupational areas. Work Studies provides opportunities for students to explore several areas of vocational interest.

The course is practical, allowing students to develop a range of skills and attitudes in actual workplace contexts. Students will undertake workplace learning as well as in class activities, to ensure they are fully prepared for the world of work and/or further training options.

What will be studied?
Core 1: Work and Change
Core 2: Experiencing Work

Modules

What do students have to do to get the Higher School Certificate in this course?
Students must satisfactorily complete all course and assessment requirements. Students must complete all assessment tasks, workplace learning and sit an examination at the completion of their Higher School Certificate.

Who should choose to study this course?
This course is for students who know that they want to follow a vocational pathway. Students are not eligible for an ATAR for university entry at the completion of Year 12 - but will have developed TAFE contacts and TAFE competencies and certification depending on course selection.

Where can this course lead?
This course provides students with the opportunity to work in various workplace settings over the two years. Work contacts and skills will be developed in areas that students are interested in.
Content Endorsed Courses (CEC)

**Content Endorsed Courses** have syllabuses endorsed by the Board of Studies to cater for areas of special interest not covered in Board Developed Courses. They are a form of Board Endorsed Course.

There is no external examination for Board Endorsed Courses. Assessment is school based.

All Board Endorsed Courses count towards the Higher School Certificate and appear on the student’s Record of Achievement. However, Board Endorsed Courses do not count in the calculation of the Australian Tertiary Admission Rank (ATAR).

Board Endorsed Courses may be studied as 1 or 2 units and as Preliminary and/or HSC courses.

**English Studies**

2 Unit - Content Endorsed Non ATAR Course

This Content Endorsed Course in English Studies is designed to support students in developing proficiency in English to enhance their personal, social and vocational lives. It offers a comprehensive language experience that is reflected in the modes of reading, writing, speaking, listening, viewing and representing.

This course provides diverse approaches to texts so that students may become flexible and critical thinkers, capable of engaging with, understanding, contributing to and appreciating the variety of cultural heritages and differences that make up Australian society and society more broadly. It also encourages the continued development of skills in individual, 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. The course encourages students to reflect on their own processes of responding, composing and learning.

**Applied Mathematics**

2 Unit - Content Endorsed Non ATAR Course

This course is designed to review and reinforce basic mathematical skills and techniques in an applied context. It involves students in a more hands on, practical application of mathematics and project based modules. Assessment is largely project based assignments and students do not complete an HSC Examination in this course.
Sport, Lifestyle and Recreation Studies

2 Unit - Content Endorsed Non ATAR Course

Students will learn about the importance of a healthy lifestyle and recognise the need to be active, responsible and informed decision makers.

This course encourages students to continue to develop their knowledge, skills and understanding of the role of sport, a healthy lifestyle and recreation in everyday life.

The course aims to:

- Develop, in students, an awareness of social and community values in the areas of sport, lifestyle and recreation
- Promote an understanding of the requirements for healthy living
- Develop a deeper understanding of the interaction between society, sport, recreation and fitness
- Identify how sport influences and affects various groups and sections of our society
- Provide students with a greater understanding of their physical and sporting potential
Computing Applications

1 Unit - Content Endorsed Non ATAR Course

Information technology and computers have become a vital part of our everyday lives. Most of us use automatic teller machines and word processing packages on a regular basis. Computers have an increasingly important role in most workplaces while computer technology plays an obvious part in our entertainment and recreation activities.

This course in Computing Applications is designed to develop skills in the use of computer technology by providing students with practical experience in a range of applications and by examining the impact of these applications in the workplace and other aspects of society.

Students undertaking the course will:
Follow a program of core studies. The core is an introductory study of aspects of computing methods and applications which are then studied in greater detail in the modules

Complete two modules selected from 21 different options depending on the interests of the students. The modules cover such diverse areas as software applications, programming, telecommunications, information systems, desktop publishing and computer graphics.

Do students need anything special to do this course? There are no pre-requisites.

What do students have to do to get the HSC in this course? Students must satisfactorily complete all course, assessment and examination requirements.

Who should choose to study this course?
Any student who has an interest in learning:
* how to use computer hardware and software
* about computing in general and who is not studying Information Processes and Technology would benefit from this course.

Are there any restrictions on students who select this course? Students cannot select the Information Processes and Technology course for study.

Where can this course lead?
This course is not suitable as a pre-requisite for tertiary study in computing.
It is a course useful to students who seek employment involving general computer use, e.g. data processing, office work and to all students who seek to develop basic computer literacy skills.

Course Requirements: Students studying Computing Applications are required to wear enclosed leather/suede footwear.

Please note that you cannot study Computing Applications in conjunction with Software Design and Development or Information Technology (VET).
Photography, Video and Digital Imaging

2 Unit - Content Endorsed Non ATAR Course

Photography, Video and Digital Imaging offers students opportunities to explore the contemporary fields of video and digital imaging and traditional aspects of black and white photography using the darkroom.

This course emphasises practical image making. Students will take and manipulate images using digital and traditional 'analogue' techniques including digital and SLR cameras, digital video cameras and image manipulation programs such as Photoshop.

Theory studies relate to the history and form of photographic, video and digital media, analysing the traditions and techniques used and their function in contemporary society.

About the course:
Photography, Video and Digital Imaging offers students the opportunity to explore contemporary and historical artistic practices that make use of photography, video and digital imaging. These fields of artistic practice resonate with students' experience and understanding of the world and are highly relevant to contemporary ways of interpreting the world.

ASSESSMENT WILL BE BASED ON SUBMITTED PRACTICAL WORK, PROCESS WORK and ASSIGNMENT WORK.

Home access to a digital camera is compulsory.

Cost:
  Preliminary
  $45.00 which covers the cost of materials and PVDI Journal

  HSC
  $45.00 which covers the cost of some materials and PVDI Journal
  Students have the option to pay for extra printing

Careers
You would study Photography, Video and Digital Imaging to become a photographer, graphic designer, web designer, film maker, software electronics designer, camera operator, cinematographer, publicist, photo journalist, television editor or production manager, visual communicator, advertising executive, police forensic investigator, wildlife photographer, software gamer or fashion photographer.
Vocational Education and Training (VET)

VET Curriculum Frameworks

Vocational Education courses have been specifically designed to give students skills which will give them an advantage when seeking employment.

At Liverpool Boys High the following Vocational Education courses are offered delivered at this school: Construction, Hospitality, Information Technology and Retail Operation.

Note: Vocational Education courses are competency or skills based on Australian Industry standard. Each student has a log book and when the required standard has been reached it is signed by the teacher. The standards are Australian wide, which means the students can use the log books for employment anywhere in Australia.

All students who complete units within the course will receive a Statement of Attainment. Students who complete all required competencies will receive a TAFE Certificate I credential and credit towards a Certificate II.

Introductory Notes

Vocational Education and Training (VET) Courses:

- VET courses are designed to enable students to acquire a range of technical, personal and organisational skills valued both within and beyond the work place.

- Students will acquire underpinning skills and knowledge related to functional areas within any industry context that can be used in making informed career choices.

- Students receive a nationally recognised Australian Qualifications Framework (AQF) accreditation on successful completion of a course.

- Students can include one VET course in their ATAR.

Assessment

- Competency Based Assessment
  - VET courses are competency based. This requires students to develop the competencies, skills and knowledge described by each unit of competency.
  - Students must demonstrate to a qualified assessor that they can effectively carry out the various tasks to the standard required in the appropriate industry, to be assessed as competent.
• **External Based Assessment**
  - The Higher School Certificate (HSC) examination for VET courses (240 hours) will involve a written examination made up of multiple-choice items, short answers and extended response items.
  - The questions will be drawn from the examinable units of competency identified in the HSC examination specifications in Part A of the Board of Studies syllabus.
  - The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive AQF qualifications.
  - Students are automatically entered into the HSC Examination but have the option of electing not to sit the examination.

**Work Placement**

- Students in Industry Curriculum Framework courses must complete work placement of up to 70 hours for a 2 unit x 2 year course (240 hours). Additional hours are required for any extension courses at the rate of 35 hours for 120 hours of HSC credit.
- A student will NOT receive their HSC in a VET subject unless they complete all 70 hours of work placement.

**School Based Part-Time Traineeships**

- Traineeships may be available in all VET courses except Construction. A special application must be made in order to access any available traineeship.

  - A part-time traineeship can be completed at school as part of the HSC. A traineeship course will also count towards a traineeship Certificate of Proficiency.

  - A school-based part-time traineeship prepares students for a career in a particular industry, provides a training wage and skills training on-the-job and off-the-job at school, TAFE NSW or a private training provider.

  - The school careers adviser or school VET coordinator has more information on school based part-time traineeships.
Stage 6 VET Courses (240 HSC Indicative Hours)

1. Construction - Delivered by Miller TAFE (College 2 ONLY)
2. Hospitality - Food and Beverage
3. Information and Digital Technology
4. Retail Services

Industry Curriculum Frameworks

BOSTES has developed Industry Curriculum Frameworks (ICF) for delivery to students as part of the Higher School Certificate.

Each course is based on a national industry training package, which leads to recognition under the Australian Qualifications Framework (AQF). The courses are based on national competency standards which have been determined by industry. They are designed to ensure national consistency in the standard of skill and knowledge required to gain a qualification at a particular AQF level.

Students will receive credentials from BOSTES on behalf of the RTO which could include Statement of Attainment or Certificate I, II or III.

The requirements of each ICF are prescribed on the BOSTES syllabus at website: www.boardofstudies.nsw.edu.au

Industry Curriculum Framework courses:
• require mandatory workplace learning, as specified in each BOSTES syllabus;
• are Category B, Board Developed Course for the purposes of meeting HSC requirements;
• are written and assessed using competency based terms;
• provides clear pathways to employment and further education and training through recognition arrangements with TAFE, other Registered Training Organisations and Industry;
• articulate with Apprenticeships and Traineeships where they exist;
• may contribute to the Australian Tertiary Admission Rank (ATAR) when students sit for the optional HSC exam.

Please Note:
Information is current at the date of distribution. However, due to possible changes as a result of Training Packages and Board of Studies, Teaching and Educational Standards (BOSTES) updates, there may be variations to a course description by the time of course delivery. Notification of changes will be made in due time.
## CONSTRUCTION COURSE DESCRIPTION 2015

This may change due to Training Package and Board of Studies, Teaching and Educational Standards (BOSTES) updates. Notification of variations will be made in due time.

<table>
<thead>
<tr>
<th>Course: Construction (240 indicative hours)</th>
<th>Board Developed Course</th>
<th>4 Preliminary and/or HSC units in total</th>
<th>Category B status for Australian Tertiary Admission Rank (ATAR)</th>
</tr>
</thead>
</table>

The Curriculum Framework course is accredited for the HSC and provides students with the opportunity to obtain nationally recognised vocational qualifications. This is known as dual accreditation.

### CPC20211 Certificate II in Construction Pathways

#### Units of Competency

**Core**
- CPCCOHS2001A Apply OHS requirement, policies and procedures in the construction industry
- CPCCCM1013A Plan and organise work
- CPCCCM1014A Conduct workplace communication
- CPCCCM1015A Carry out measurements and calculations
- CPCCCM2001A Read and interpret plans and specifications
- CPCCOHS1001A Work safely in the Construction Industry

**Electives**
- 6 out of the following 10
  - CPCCCA2011A Handle carpentry materials
  - CPCCCA2003A Erect and dismantle formwork for footings and slabs on the ground
  - CPCCCO2013A Carry out concreting to simple form

Successful completion of the unit, CPCCOHS1001A, will lead to the award of a Construction Induction Card from WorkCover NSW, which allows the student access to construction sites across Australia for work purposes.

**Students may apply for Recognition of Prior Learning provided suitable evidence is submitted.**

Students who are assessed as competent in the core and elective units of competency will be eligible for a CPC20211 Certificate II in Construction Pathways. Successful completion of the unit, CPCCOHS1001A, will lead to the award of a Construction Induction Card from WorkCover NSW, which allows the student access to construction sites across Australia for work purposes.

There are eight Employability Skills: communication, teamwork, problem solving, initiative and enterprise, planning and organising, self-management, learning and technology. Employability skills summaries for Qualifications can currently be downloaded from the [http://www.training.gov.au](http://www.training.gov.au) website; by using the website search to find the Qualification.

### Pathways to Industry

Skills gained in this course transfer to other occupations. Working in the construction industry involves:

- constructing buildings
- modifying buildings
- contracting
- measuring materials and sites
- communicating with clients
- managing personnel and sites

**Examples of occupations in the construction industry:**

- building
- bricklaying
- concreting
- shop fitting
- carpentry
- joinery

### Mandatory Course Requirements

Students must complete a minimum of 70 hours work placement. Students who do not meet these requirements will be ‘N’ determined as required by the Board of Studies, Teaching and Educational Standards (BOSTES). Students who achieve competency in CPCCOHS1001A – Work Safely in the Construction Industry, will be issued with a WorkCover NSW Construction Induction Card (White Card). This is a requirement before commencing workplacement.

### Competency-Based Assessment

Students in this course work to develop the competencies, skills and knowledge described by each unit of competency listed above. To be assessed as competent a student must demonstrate to a qualified assessor that they can effectively carry out competency. When a student achieves a unit of competency it is signed off by the assessor.

**Appeals** Students may lodge an appeal about assessment decisions through their VET teacher.

**External Assessment (optional HSC examination)**

The Higher School Certificate examination for Construction (240 indicative hours) will involve a written examination consisting of multiple-choice items, short answers and extended response items. The questions will be based on the compulsory units of competency and HSC Requirements and Advice detailed in the syllabus. The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive a vocational qualification but may be used in the calculation of theATAR.

### Course Costs:

- **Resources**: $20
- **Consumables**: $80
- **Other**: $20

Refund Arrangements on a pro-rata basis

A school-based traineeship and apprenticeship are available in this course, for more information: [http://www.sbatinnsw.info/](http://www.sbatinnsw.info/)
# HOSPITALITY FOOD and BEVERAGE COURSE DESCRIPTION 2015

This may change due to Training Package and Board of Studies, Teaching and Educational Standards (BOSTES) updates. Notification of variations will be made in due time.

**Course:** Hospitality - Food and Beverage (240 indicative hours)

- 4 Preliminary and/or HSC units in total
- Category B status for Australian Tertiary Admission Rank (ATAR)

This curriculum framework includes courses which are accredited for the HSC and provides students with the opportunity to obtain nationally recognised vocational qualifications. This is known as dual accreditation.

## SIT20213 Certificate II in Hospitality

### Units of Competency

#### Core
- BSBWOR203B Work effectively with others
- SITHIND201 Source and use information on the hospitality industry
- SITHIND202 Use hospitality skills effectively
- SITXCCS201 Interact with customers
- SITXWHS101 Participate in safe work practices
- SITXCOM201 Show Social and Cultural sensitivity

#### Electives
- SITHACS101 Clean premises and equipment
- SITHCC101 Use food preparation equipment
- SITHFAB204 Prepare and serve espresso coffee
- SITHFAB206 Serve food and beverage
- SITXFS201 Participate in safe food handling practices
- SITHCC103 Prepare sandwiches
- BSBSUS201A Participate in environmentally sustainable work practices
- SITHFAB203 Prepare and serve non-alcoholic beverages
- SITXFS2A101 Use hygienic practices for food safety

Students may apply for Recognition of Prior Learning provided suitable evidence is submitted.

Students who are assessed as competent in the core and electives units listed will be eligible for a Statement of Attainment showing partial completion of SIT20213 Certificate II in Hospitality. There are eight Employability Skills: communication, teamwork, problem solving, initiative and enterprise, planning and organising, self-management, learning and technology. Employability skills summaries for Qualifications can currently be downloaded from the [http://www.training.gov.au website](http://www.training.gov.au) by using the website search to find the Qualification.

### Pathways to Industry

Skills gained in this course transfer to other occupations. Working in the hospitality industry involves:

- Supporting and working with colleagues to meet goals and provide a high level of customer service
- prepare menus, managing resources, preparing, cooking and serving a range of dishes

### Examples of occupations in the hospitality industry:

- breakfast cook
- barista
- trainee chef
- café assistant
- short order cook
- fast food cook

### Mandatory Course Requirements

Students must complete a minimum of 70 hours work placement. Students who do not meet these requirements will be ‘N’ determined as required by the Board of Studies, Teaching and Educational Standards (BOSTES).

### Competency – Based Assessment

Students in this course work to develop the competencies, skills and knowledge described by each unit of competency listed above. To be assessed as competent a student must demonstrate to a qualified assessor that they can effectively carry out competency. When a student achieves a unit of competency it is signed off by the assessor.

### Appeals

Students may lodge an appeal about assessment decisions through their VET teacher.

### External Assessment (optional HSC examination)

The Higher School Certificate examination for Hospitality (245 indicative hours) will involve a written examination consisting of multiple-choice items, short answers and extended response items. The questions will be based on units of competency and HSC Requirements and Advice detailed in the syllabus. The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive a vocational qualification.

### Course Costs: Resources $20 Consumables $120 Other $

A school-based traineeship and apprenticeship are available in this course, for more information: [http://www.sbatinnsw.info/](http://www.sbatinnsw.info/)
INFORMATION and DIGITAL TECHNOLOGY COURSE DESCRIPTION 2015

This course will change due to Training Package and Board of Studies, Teaching and Educational Standards (BOSTES) updates. Notification of variations will be made in due time.

| Course: Information and Digital Technology (240 indicative hours) | 4 Preliminary and/or HSC units in total |
| Board Developed Course | Category B status for Australian Tertiary Admission Rank (ATAR) |

This curriculum framework includes courses which are accredited for the HSC and provides students with the opportunity to obtain nationally recognised vocational qualifications. This is known as dual accreditation.

### Statement of Attainment towards
ICA30111 Certificate III in Information, Digital Media and Technology

#### Units of Competency

<table>
<thead>
<tr>
<th>Core</th>
<th>Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSBWHS304A Participate effectively in WHS communication and consultation processes</td>
<td>ICAICT203A Operate application software packages</td>
</tr>
<tr>
<td>BSBSUS301A Implement and monitor environmentally sustainable work practices</td>
<td>ICAICT308A Use advanced features of computer applications</td>
</tr>
<tr>
<td>ICAICT202A Work and communicate effectively in an IT environment</td>
<td>ICAWEB302A Build simple websites using commercial programs</td>
</tr>
<tr>
<td>ICAICT301A Create user documentation</td>
<td>ICAWEB201A Use social media tools for collaboration and engagement</td>
</tr>
<tr>
<td>ICAICT302A Install and optimise operating system software</td>
<td>ICAWEB301A Create a simple mark-up language document</td>
</tr>
<tr>
<td>ICASAS301A Run standard diagnostic tests</td>
<td>ICAWEB303A Produce digital images for the web</td>
</tr>
</tbody>
</table>

Students may apply for Recognition of Prior Learning provided suitable evidence is submitted.

Students who are assessed as competent in the units listed will be eligible for a Statement of Attainment towards **ICA30111 Certificate III in Information, Digital Media and Technology**. There are eight Employability Skills: communication, teamwork, problem solving, initiative and enterprise, planning and organising, self-management, learning and technology. Employability skills summaries for Qualifications can currently be downloaded from the [http://www.training.gov.au](http://www.training.gov.au) website; by using the website search to find the Qualification.

### Pathways to Industry

**Working in the information and digital technology industry involves:**

- designing web pages
- supporting computer users
- networking computers communicating with clients
- finding solutions to software problems

### Examples of occupations in the information and digital technology industry

- Service technician
- Multimedia developer
- Technical support officer
- help desk office
- On-line service support officer
- Web designer

### Mandatory Course Requirements

Students must complete a minimum of 70 hours work placement. Students who do not meet these requirements will be ‘N’ determined as required by the Board of Studies, Teaching and Educational Standards (BOSTES).

### Competency-Based Assessment

Students in this course work to develop the competencies, skills and knowledge described by each unit of competency listed above. To be assessed as competent a student must demonstrate to a qualified assessor that they can effectively carry out to industry standard. Students will be progressively assessed as ‘competent’ or ‘not yet competent’ in individual units of competency. When a student achieves a unit of competency it is signed off by the assessor.

**Appeals** Students may lodge an appeal about assessment decisions through their VET teacher.

### External Assessment (optional HSC examination)

The Higher School Certificate examination for Information and Digital Technology (240 indicative hours) will involve a written examination consisting of multiple-choice items, short answers and extended response items. The questions will be based on units of competency and HSC Requirements and Advice detailed in the syllabus. The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive a vocational qualification but may be used in the calculation of the ATAR.

### Course Costs: Resources $ 20 Consumables $ 20 Other $ 0

Refund Arrangements on a pro-rata basis

A school-based traineeship is available in this course, for more information: [http://www.sbattnsw.info/](http://www.sbattnsw.info/)
# Retail Services Course Description 2015

This course is accredited for the HSC and provides students with the opportunity to obtain nationally recognised vocational qualifications. This is known as dual accreditation.

## Course: Retail Services (240 indicative hours)

<table>
<thead>
<tr>
<th>Board Developed Course</th>
<th>Category B status for Australian Tertiary Admission Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Preliminary and/or HSC units in total</td>
<td></td>
</tr>
</tbody>
</table>

This may change due to Training Package and Board of Studies, Teaching and Educational Standards (BOSTES) updates. Notification of variations will be made in due time.

## SIR20212 Certificate II in Retail Services

### Units of Competency

**Core**
- SIRXCCS201 Apply point-of-sale handling procedures
- SIRXCCS202 Interact with customers
- SIRXCLM101 Organise and maintain work areas
- SIRXCOM101 Communicate in the workplace to support team and customer outcomes
- SIRXICT001A Operate retail technology
- SIRXIND101 Work effectively in a customer service environment
- SIRXWHS101 Apply safe work practices
- SIRXRSK201 Minimise loss

**Electives**
- SIRXMER201 Merchandise products
- SIRXSL201 Sell products and services
- SIRXSLS002A Advise on products and services
- SIRXF002A Perform retail financial duties
- SIRXIN001A Perform stock control procedures

Only to be delivered by teachers who have this qualification

Students who are assessed as competent in the core and electives units listed will be eligible for SIR20212 Certificate II in Retail Services.

### Pathways to Industry

**Working in the retail industry involves:**
- Customer service
- Teamwork
- Stock control
- Designing and creating displays
- Using cash registers, scanners, computers, telephones

**Example of occupations in the retail industry:**
- Buyer
- Customer service assistant
- Stock controller
- Sales person
- Visual merchandise
- Merchandise

### Mandatory Course Requirements

Students must complete a minimum of 70 hours work placement. Students who do not meet these requirements will be ‘N’ determined as required by the Board of Studies, Teaching and Educational Standards (BOSTES).

### Competency-Based Assessment

Students in this course work to develop the competencies, skills and knowledge described by each unit of competency listed above. To be assessed as competent a student must demonstrate to a qualified assessor that they can effectively carry out tasks to industry standards. Students will be progressively assessed as ‘competent’ or ‘not yet competent’ in individual units of competency. When a student achieves a unit of competency it is signed off by the assessor.

### Appeals

Students may lodge an appeal about assessment decisions through their VET teacher.

### External Assessment (optional HSC examination)

The Higher School Certificate examination for Retail Services (240 indicative hours) will involve a written examination consisting of multiple-choice items, short answers and extended response items. The questions will be based on units of competency and HSC Requirements and Advice detailed in the syllabus. The examination is independent of the competency-based assessment undertaken during the course and has no impact on the eligibility of a student to receive a vocational qualification but may be used in the calculation of the ATAR.

### Course Costs:

<table>
<thead>
<tr>
<th>Resources</th>
<th>Consumables</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20</td>
<td>$20</td>
<td>$</td>
</tr>
</tbody>
</table>

Refund Arrangements on a pro-rata basis

A school-based traineeship is available in this course, for more information: [http://www.sbatinnsw.info/](http://www.sbatinnsw.info/)
TVET Courses
(TAFE Vocational Education and Training)

The HSC allows students to undertake study in a variety of vocational areas that provide work related skills and knowledge. These VET courses count towards the HSC and many can also be used in calculation of your Australian Tertiary Admissions Ranking (ATAR).

What are the advantages of undertaking a TVET course?

The TVET option provides an alternative choice for those students who desire to:
- Experience an adult learning environment
- Access to modern classrooms, workshops and computer laboratories.
- Be taught by industry trained and experienced specialist.
- Provide you with advanced standing for TAFE courses after you finish school.

Who should consider TVET courses?

- Students who have a special interest in a particular area of study that isn’t available at school.
- Students who already know what area of employment they are heading to.
- Students who can travel independently to TAFE colleges located at one of the locations listed below.
- Students who have already demonstrated success in a previous TAFE or VET course.
- Students who can maintain successfully an excellent record of attendance at both school and TAFE.

How can I apply?

- Each student will need to be interviewed to have their application considered.
- Complete an Expression of Interest form as soon as possible, including parent consent.
- In some cases, students will need to have an Individual Transition Plan meeting with their parents and school staff.
There are other options available for students who can demonstrate they have a particular interest or passion in an area of study including:

- A ‘Combo’ course that allows students to study both Construction and Plumbing – one day per week.
- School Based Apprenticeships and Traineeships in a wide variety of trades.
- A ‘fast tracked’ SPY course delivered one whole day per week (including some block weeks, pupil free days and sometimes school holidays) that is equivalent to 4 Units.

For more information on courses go to SWSi.edu.au/tvet and or see Mr Cooper or Mrs Kelly in the Engagement and Support Faculty.
Subject Selection Timeline

Term 2 – Week 7
- Prospectus reviewed by Faculty Head Teachers

Term 2 – Week 8
- Prospectus published and issued to Year 10 and College 1 students
- Year 10 Student Advisor to work with students in Year 10 Welfare Classes on the Subject Selection process
- Additional Year Meeting/s to outline Subject Selection.

Term 2 – Week 9
- Year 10 and College students surveyed on their proposed subject choices. Data analysed and College Lines formulated.

Term 3 – Week 1
- Taster Lessons & College Visits to Year 10.

Term 3 – Week 2
- College Information Evening - Wednesday 23rd July - College Line structure explained.

Term 3 – Week 3
- College Subject Selection Interviews conducted - class numbers tallied for remaining class availability for Year 10 interviews.

Term 3 – Week 4
- Year 10 Subject Selection Interviews conducted.