



# Christ Church Grammar School

## Academic Handbook Year 10, 2025

### Overview

#### **The timetable**

The Senior School operates on a 10-day timetable cycle with six 50-minute periods a day. The 10 days are organised within a Week A / Week B structure. The timetable differs from Week A to Week B.

Students can access an electronic copy of their timetable on their Surface device through Nexus ([nexus.ccgswa.edu.au](http://nexus.ccgswa.edu.au)).

Where a day or days are missed for long weekends or public holidays, these are skipped in the timetable. A boy's timetable therefore completes a cycle every two weeks.

With the exception of Thursday, each day begins at 8.30am with a 20-minute tutorial prior to the first period of the day. On Thursdays, the period from 8.30am until 9.45am includes Chapel, Assembly, House meetings etc. There are therefore only five periods on a Thursday.

The academic timetable on Friday concludes after period 4 with Year 10 students being involved in a formal activities program for periods 5 and 6.

#### **Academic Administration**

The Deputy Principal/Director of Studies is responsible for curriculum implementation and curriculum policy from Pre-Primary to Year 12. The Deputy Principal/Director of Studies and the Assistant Director of Studies organise the day-to-day and long-term academic program in the Senior School. In particular, the Assistant Director of Studies is responsible for the timetable.

Questions relating to a course of study should be directed initially to a boy's tutor or Head of House. However, where a boy is new to the School, such queries may be directed to the Assistant Director of Studies.

If there are any concerns, early in the year, about the electives chosen by a boy, the matter should be discussed with the tutor or Head of House. The issue may then be referred to the Studies Office. If there are good reasons for a change of course, the School will try to accommodate this.

#### **Homework policy**

The School supports the view that homework is an integral part of a student's education. Homework encourages the skills and study habits that are essential for intellectual growth and academic achievement. It is developmental and therefore increases in amount and complexity as the student progresses through the Senior School. The nature of homework can vary from simple reading of text or reference material, formal

written work and preparation for a test or classroom exercise, to involved research assignments that may take many weeks to complete. It is also expected that the student will take some responsibility for the allocation of time for revision and review of subjects in the absence of homework that is specifically set. The School encourages the independence of teachers in determining the type and amount of homework necessary to sustain the day to day academic program.

While homework is set in all subjects, not all homework is due to be submitted in the following lesson. Teachers will give advice on the timing of homework. As such, there will be some days when more homework is required than others. It is therefore up to the student, teacher, tutor and parents to manage an organised program of homework time to meet the specific demands of the following day. Students are required to use a diary as an organiser and planner for homework and similar activities. Students may choose between using the School diary, a personally purchased diary or an electronic diary. For many students, the development and management of such skills will be critical for future academic success.

In Year 10, students should expect to spend from one to two hours per weeknight on homework. The ebb and flow of assessments will necessarily mean that these times will vary, and there will be occasions when there are intense periods of homework interspersed with relatively free periods of time. It is here that preparation and planning are the key ingredients of a balanced response to the after-school demands of the academic program.

More information can be found in the School's 'Guidelines for study and homework' available from CCGS World under Governance.

Students are often required to attach a bibliography to assignments and incorporate in-text referencing. The School uses the American Psychological Association (APA) Referencing System.

## **Assessment and reports**

Specific details about subject assessments can be found in the programs issued by teachers. The information gathered from the in-class assessment program is provided in reports to parents four times a year.

The reports provided for Terms 1, 2, 3 and 4 provide a broad overview of progress, including information about current grade, percentage and rating of a number of work practices. Academic grades are provided on an A - E scale. Each report represents the current status of the student in that subject.

Trimesterised subjects (Biology, Chemistry and Physics in Science) and unitised subjects (Civics and Citizenship, Economics and Business, Geography and History in Humanities) will be reported on in the term report in which the trimester or unit is completed.

Students in Year 10 have end of year examinations in English and Mathematics, together with examinations in elective subjects when this is considered to be a valid and effective means of determining a student's achievement.

There is a parent/teacher/student evening for Year 10 students, which takes place in Term 2. The evening serves the dual function of providing feedback about current performance as well as exploring possibilities for Year 11.

Together with these formal reports, there is ongoing communication between the student's classroom teacher and tutor. Thus tutors and the Head of House can provide parents with early warning of any problems or difficulties. Parents should direct any specific concerns or questions about class work to the tutor in the first instance.

## **Study Lab**

After-school academic support is available for all students, including Year 10s. It is currently held in the CLC on Mondays, Tuesdays, Wednesdays and Thursdays, from 3.15pm to 4.45pm. English and Mathematics specialist staff are available on some of these afternoons, while organisational support is provided for work in other subjects. A number of current and former students also volunteer their assistance. Some students attend these sessions simply to complete homework, knowing that help is available if they encounter difficulties. For other students these sessions provide a time to go over work that may have been missed in class.

## **Information Technology**

The School actively encourages teachers and departments to integrate the use of information technologies into the curriculum. Students are exposed to a wide range of information technology experiences by applying the computing resources to subject-based tasks. These experiences range from simple uses such as access to the Internet, to more complex uses such as multimedia. Digital tools, including online sources, are extensively used as research tools. Students are guided in best practice use of these tools, especially the development of effective Information Literacy skills.

Year 10 students are expected to bring their laptop device to all their classes (except Physical Education). It will be utilised by teachers as a tool for connected learning in their classrooms. Students are provided with their own email account.

Students may be required to use information technology, particularly their Surface device, while at home. Parents are encouraged to monitor their son's use of the Surface device in the same way that they might monitor other homework. Parents should restrict access to the device if it is not being used in a suitable manner. There are also technical solutions to do this; in this case, the School recommends the use of OpenDNS.

All activities that engage students with information technology require the student to demonstrate appropriate responsibility. They need to plan to manage their time efficiently and to ensure that they are using technology in ways that assist their learning.

The use of the Internet, email, Surface device and other IT assets is governed by the School's *IT Acceptable Use Policy*, available on each boy's computer.

## **Nexus**

Nexus ([nexus.ccgswa.edu.au](http://nexus.ccgswa.edu.au)) is the School's Learning Management System. In Nexus, students have access to their timetables, class learning resources and due dates for assessments as well as daily information about school activities.

## **Textbooks**

For subjects where a textbook is utilised, a digital textbook is provided for students. Where a digital textbook is not available, students are provided with a print textbook.

## **Curriculum Policy**

The School's Curriculum Policy is available through the 'Policies' section of CCGS World (Governance). It gives further information about the way in which the curriculum is delivered.

## Reporting and Assessment Policy

The School's Reporting & Assessment Policy and Procedures are available through the 'Policies' section of CCGS World (Governance). It gives further information about the way in which information about student progress is reported to parents and protocols around assessment and procedures around missed assessments.

## Rewarding academic achievement and endeavour Policy

The School's Rewarding academic achievement and endeavour Policy is available through the 'Policies' section of CCGS World (Governance). It gives further information about the way in which Subject and Merit Prizes are awarded.

# Year 10 Curriculum

**The Year 10 course is made up of seven core subjects and a choice of two elective subjects.** All core and elective units are offered over the whole year and are listed below.

Boys will study the core subjects of English, Humanities, Mathematics, Science, Physical Education and Health. They are also required to take part in the Year 10 Venture at the end of the year.

## Extension Classes

Extension classes run in the four core subject areas (English, Humanities, Mathematics and Science). These classes follow a significantly modified learning and assessment program and aim to provide students of high cognitive potential with appropriately challenging learning experiences. Selection criteria for these classes are outlined in the School's Curriculum Policy.

## Support Classes

Support classes are run in the four core subject areas (English, Humanities, Mathematics and Science). These classes have lower student numbers and are designed to cater for the needs of boys with specific learning challenges, needs or gaps. The programs in these classes are aligned to the mainstream West Australian Curriculum but the content differentiated, and assessment modified to meet the learning needs of individual students. Recommendations for student access of support classes is made by Heads of Department and classroom teachers. Further information around this process is outlined in the School's Curriculum Policy.

## Peter Moyes Centre (PMC)

The Senior Peter Moyes Centre (PMC) caters for students with diagnosed disabilities who are unable to access aspects of the mainstream curriculum. The PMC program covers core subject areas (English and Mathematics) as well as Health and Protective Behaviours, Life Skills (cooking and daily living skills), Community Access, Business Enterprise, Work Experience and ASDAN. All students access mainstream electives in Years 7 – 10.

The overarching vision of the Senior PMC is to prepare students for life after school through developing their independent work skills and increasing their ability to manage themselves in a variety of situations and contexts.

Each student works from an individually developed program called a Documented Plan (DP) which contains learning objectives specific to relevant subject areas. The DPs are developed in consultation with Senior PMC teaching staff, parents/guardians and other relevant stakeholders. The DPs are reviewed biannually.

Placement in the Senior PMC will be discussed upon enrolment or transition into the Senior School and the Coordinator of the Senior PMC will be in touch with parents/guardian to conduct a Needs Assessment before a decision regarding placement is made. Where appropriate, mainstream students will be invited to participate in some PMC programs (such as English, Mathematics and ASDAN) to facilitate learning development and enhancement of opportunities post-schooling.

## Elective Subject Selection

The choice within the elective program represents a cross section of courses from the SCSA learning areas that are not represented in the core subjects. These learning areas are: The Arts, Technology & Enterprise and Languages. In addition to courses in these four learning areas, an elective in Marine Studies is offered.

Subject Selection for the Year 10 course is made by studying the Subject Outlines in the next section and then completing the online Subject Selection Form. Every Year 10 elective subject operates for the whole year for six periods per 10 day cycle.

While there are gazetted periods in which students can request changes to elective subjects, students and parents are encouraged to consider their elective subject choices carefully, as it **may not** be possible to make requested changes within the timetable. Students would then be required to continue with their initial selection.

If assistance is needed in making subject choices please consult initially with the Head of House. For boys new to Christ Church, it is advisable that you seek assistance and advice from the Assistant Director of Studies, Dr Holly Rose. Please note that boys may select at most **one** subject from each of the follow groups:

- Data Science and Artificial Intelligence **and** Ethical Hacking and Data Security
- Design and Technology Materials **and** Mechatronics
- Digital Media **and** Visual Art.
- Music Advanced **and** Music General

## SUBJECTS

Mandatory	Electives Two electives are to be selected
English Humanities Mathematics (Mainstream or Advanced) Health and Wellbeing Physical Education Science Venture	Chinese Data Science & Artificial Intelligence Design & Technology – Materials Digital Media Drama Ethical Hacking & Data Security French Global Perspectives Investing & Enterprise Japanese Marine Science Mechatronics – Arduino powered buggies Music Advanced Music General Sports Science Visual Art

# Mandatory Subjects

## English

This is a whole-year course taught for eight periods in each ten-day cycle. In Year 10, boys are prepared to make informed choices for their upper-school English courses of study and equipped to succeed in them. Non-fiction texts are an important focus, comprising study of the elements of rhetoric and persuasive speaking, feature articles, photojournalism and documentary films. Students extend their experience of literature and engage with multiple imaginative texts drawn from both classic and contemporary canons, including a novel and a play. They also study a feature film in a specific genre.

Many of the Year 10 English assessments are conducted in class under time pressure, and expectations in regard to homework are high. Students also have the opportunity to develop their research and referencing skills through an extended essay. The course is designed to help bridge the gap to later ATAR subjects, and connections between current learning and ATAR English and Literature will be prioritised in the delivery of content.

Throughout the year, all boys work to consolidate and extend their general and subject specific vocabulary, as well as their spelling and grammar, through the use of tools including Education Perfect. Students are expected to become increasingly proactive and independent in this regard. This is also the expectation for students' reading habits, with the minimum recommended reading time per night being 15-30 minutes to maximise development of their literacy skills.

When possible, there are excursions to appropriate plays and films, and from time to time, visiting speakers. Creative writing features in the program, and the boys are also encouraged to enter a range of internal and external creative writing competitions, with a number having their work celebrated on the English noticeboard.

The formal assessment program is reviewed on an annual basis but is likely to approximate the schedule that follows. Common Assessment Tasks, which require the whole cohort to sit the same in-class assessment on the same day, are set twice a year and are marked by external markers to assist grading consistency. The final examination is an important milestone, with students writing short answer and essay responses to questions that test their reading comprehension and analytical understandings, as well as completing a creative writing component.

### Assessment Schedule

#### SEMESTER ONE

Persuasive speech  
Feature articles/images comprehension  
Novel study essay  
Documentary study research essay

#### SEMESTER TWO

Creative composition  
Feature film analytical essay  
Drama study oral presentation  
Examination (reading comprehension, analytical essays on literary and media texts, composition)

### Contact

Mrs Sarah Downes  
Year 10 Coordinator and Assistant Head of English

Mrs Melanie Hastie  
Head of English

## **English as an Additional Language or Dialect (EAL/D)**

English as an Additional Language or Dialect (EAL/D) is run through the Languages Department. Students recommended for, or eligible to study EAL/D, will be taught by an EAL/D specialist who will cover the contexts, processes and strategies studied in other English classes but using resources geared to EAL/D students and at a pace to cater for the needs of these students. There are eligibility requirements for EAL/D candidates to satisfy prior to continuing with the stream through to a Year 11 and Year 12 ATAR level.

Contact

Mr Marcus Sharp

Head of Languages

## **Health and Wellbeing**

Students will study five topics during the year

### **Health**

At Christ Church the underlying focus in the Health area is health maximisation. The course covers three major standards:

- Students explain the impact of social and cultural influences on personal identity and health, safety and wellbeing, including stereotypes and gender, diversity and cultural differences
- They analyse media messages about health and propose and evaluate interventions to improve individual and community health and wellbeing
- Students evaluate the impact of emotional responses on relationships and apply skills and strategies to promote respectful relationships, such as taking action to address disrespect or other inappropriate behaviour

Outline:

1. Keys for Life: driver education that focuses on educating young drivers, commitment to extensive driving practice and preparing them for all road use. Students will have the opportunity to sit their Learner's test and with a completed log book and attendance in the program will be eligible to gain their Learner's Permit from the Department of Transport licensing centre .
2. Drug Education including both illicit and legal substances.

### **Careers**

The Career and Development course focuses on preparing students for selecting subjects for senior school and pathways beyond school. The areas students cover in this course are

- Identifying personal skills, interests, talents and values
- Exploring possible career options using the career tool 'Career Voyage'
- Researching university and further training

- An introduction to the subject selection process for Year 11; the subjects they will choose from and how they relate to post school education and training
- Resumé writing
- Old Boy guest speaker – Life After Christ Church

The course provides an excellent launch pad for parents to begin having conversations with their son about possible pathways for when he leaves school and how they will relate to his subject selection for Years 11 and 12.

### **Positive Psychology**

In this component students continue to explore the concepts of Positive Psychology that have been introduced previously, specifically focusing on

- Character Strengths
- Personality and relationship building
- Problem solving
- Common thinking traps
- Mental health and substance abuse

### **Religion**

Consistent with CCGS's Anglican traditions and desire to contribute to the development of 'global citizens', this unit includes comparisons between religion and spirituality; writing my own spiritual autobiography; exploration of different spiritual traditions and famous lives; discussion of contemporary social justice issues in Australia; and a deeper exploration of contemporary religious issues around the world.

### **The Young Man Project**

The Young Man Project continues on from the Year 9 On Queenslea Drive (OQD) Program with a focus on students revisiting their OQD commitments and creating new relationships with students in their class. The Young Man Project also focuses on building the students social and emotional skills that are critical for young men of the future.

The aims of the project are

- To revisit key OQD themes.
- To work with the young men to become proactive in building their relationships and develop an understanding of what kind of young man they wish to be
- To continue to build a tight bond amongst the cohort
- To provide young men with an understanding of how individuals think differently and develop skills to work effectively with different personalities
- To encourage and engage students to step up another level from OQD

#### **Contacts**

Mr Brad Gardner Director of the Wynne Centre for Boys' Health and Wellbeing	Mr James McMahon Head of Careers	Mr Chris Miles Head of Year 9 On Queenslea Drive Program
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Mr Luke Farmer  
Head of Health & Physical Education

Reverend Nicholas Russell  
School Chaplain



## Humanities

The Year 10 Humanities course runs for eight periods a fortnight and is split into four units: Civics and Citizenship, Economics and Business, Geography and History.

Through the contexts of Civics and Citizenship, Economics and Business, Geography and History, students will have the opportunity to develop 21<sup>st</sup> Century skills and develop into global citizens. These capabilities are essential in preparing students for an increasingly interconnected and globalised economy and include being able to question and research, analyse, evaluate, communicate and reflect.

### Civics and Citizenship

Students will build an understanding of democracy, democratic values, justice, rights and responsibilities by exploring Australia's system of government and comparing it with China's, analysing Australia's roles and responsibilities at a global level and its international legal obligations. They will inquire into the values and practices that enable a resilient democracy to be sustained.

### Economics and Business

Students will expand on their global awareness by looking at direct comparisons between Australia and different economies around the world. They study the various factors that affect standard of living including; economic growth, distribution of income and wealth, inflation and unemployment.

The topics addressed are

- Factors that influence decision of consumers and producers (including supply and demand)
- Indicators of economic growth
- Macroeconomic performance and living standards
- Business structures and how they affect productivity improvements

### Geography

The Year 10 Geography course emphasises the application of practical and investigative skills covered in previous years. It also focuses on sustainability and human impact upon the environment. This is achieved through the examination and investigation of global issues. In this context, all boys examine climate change. A lengthy investigation of a local coastal area issue involving diverse stakeholders and sustainable development allows the students to utilise a range of practical skills including Geographical Information Systems.

This unit will introduce students to some of the thematic, practical and theoretical work conducted in Senior Geography courses. The topics covered are

- Environmental Issues and Sustainability
- Population Geography and Human Wellbeing
- Physical Geography, especially Coastal Processes including the management of our coastline
- Practical and fieldwork skills

### History

The History unit builds on the analytical skills of history and students will also further develop their writing skills so that they can write strong essays, interpret sources and understand bias. In line with the topics contained in the Western Australian Curriculum, students will study

- World War II: An overview of the long-term and short-term causes of war and its progression from mainly European theatres to another global conflagration. An examination of the broader impact of the conflict will be completed as well as Australia's contribution to the war and its lasting consequences will also be studied.

- The struggle for freedom since World War II: a study of the civil rights movement in the USA and parallel developments in Australia; the Vietnam War and 'freedom and rights' – both in Vietnam and Australia, which includes Australia's response to the conflict.

Contact

Mr Andy Greig

Head of Humanities

## **Mathematics Mainstream**

This is a whole year course taught for eight periods in each 10-day cycle. All boys are required to own a scientific calculator and a Casio ClassPad, both of which are available from the bookroom. The use of these calculators is integrated into almost all topics in the course, and they may both be used up to and including the ATAR Mathematics examinations. The Year 10 mainstream course is very heavy in algebraic content. Students must have a solid understanding of core algebraic skills to be successful.

The following units are studied during the year

1. Linear relations
2. Geometry
3. Indices
4. Exponential functions and Financial Mathematics
5. Trigonometry
6. Quadratic equations
7. Measurement
8. Parabolas and other graphs
9. Probability
10. Statistics

Class work and formal testing will be used to assess learning. Students will be assessed through tests, investigations, applications and a final examination.

Students studying the Year 10 Mathematics Mainstream course will be able to select from Mathematics Applications ATAR and Mathematics Essential General in Year 11.

Contact

Mr Taylor Pervan

Head of Mathematics

## **Mathematics Advanced**

This is a whole year course taught for eight periods in each 10-day cycle. All boys are required to own a scientific calculator and a Casio ClassPad, both of which are available from the bookroom. The use of these calculators is integrated into almost all topics in the course, and they may both be used up to and including the ATAR Mathematics examinations. This course covers both the Mainstream content and the Advanced content. The course encompasses a significant amount of algebra and students must demonstrate a solid knowledge, understanding and ability of algebra and be able to apply their skills in unfamiliar contexts. The

course is fast-paced and students will need to be self-motivated and independent learners to cope with the demands of the course.

The following units are studied during the year

1. Linear relations
2. Geometry
3. Indices and surds
4. Exponential functions and Financial Mathematics
5. Trigonometry; including non-right-angled trigonometry and graphs
6. Quadratic equations
7. Measurement
8. Parabolas and other graphs
9. Logarithms
10. Polynomials
11. Probability
12. Statistics

Class work and formal testing will be used to assess learning. Students will be assessed through tests, investigations, applications and a final examination.

Students studying the Year 10 Advanced course will be able to choose Mathematics Methods ATAR and Mathematics Specialist ATAR if they achieve an A grade. Students can elect to study Mathematics Methods ATAR if they achieve an A or B grade. Students achieving a C or D grade in this course are advised to select from Mathematics Applications ATAR or Mathematics Essential General in Year 11.

Contact

Mr Taylor Pervan

Head of Mathematics

## **Physical Education**

This course is taught over the whole year for four periods in each 10 day cycle. Each boy is expected to be able to swim 400 metres using a recognised stroke over deep water prior to starting the Year 10 course.

### **Physical Education**

This part of the program focuses on the development of skills in a variety of new and traditional activities in addition to furthering a boy's fitness and participation in more advanced team play.

Activities throughout the year include badminton, various football codes, athletics, basketball, water polo, weight training and fitness testing. Students are also trained and tested for the Royal Life Saving Society Bronze Medallion Award.

Each student's fitness, athleticism, lifesaving ability, ball skills, attitude, behaviour, dress, punctuality, game performance and skill development will be assessed.

## Health Education

The health education component of this course is taught as part of the Health and Wellbeing Program (see p. 7 and 8).

Contact

Mr Luke Farmer

Head of Health & Physical Education

## Science

Each Science course runs for one trimester for eight periods in each 10-day cycle.

### Biology

This course aims to introduce students to the concepts of heritable characteristics from one generation to the next, as well as the Theory of Evolution. The theory behind these concepts is supported by practical work, including Biotechnology. This unit of work covers cells, DNA, genetics, evolution, natural selection, evidence for evolution, artificial selection, cloning and recombinant DNA technology in an interesting and practical way. It provides a good basis for both the Year 11 Biology and Human Biology courses. Boys have the opportunity to participate in a variety of activities, such as spooling DNA and using gel electrophoresis to produce a DNA fingerprint and look at the relatedness of organisms through DNA and protein sequencing. The Year 10 course builds on previous knowledge and extends the boys into the applications of new biological understandings and the ethical ramifications of such advancements. It is assessed by tests and investigations.

### Chemistry

This course is applications-based, though it must be recognised that there is a need to prepare for more content-oriented studies in Year 11. Hands-on experiences are provided through a variety of practical activities to demonstrate that Chemistry is an applied and experimental science. Knowledge and understanding of a variety of chemical concepts, theories and principles is necessary for further studies, and also necessary for an informed general population. Recollection and use of many of the ideas introduced during the Year 9 course will be required. The material is organised into two units

- Chemical Models: this unit introduces students to a more detailed model of atomic structure, the general classes of chemical reactions and to the language of Chemistry. Students are also introduced to the mole concept (chemistry calculations) in preparation for Year 11 Chemistry
- Salt Analysis: this unit introduces students to analytical chemistry and tests students' broader understanding of Chemistry through investigations and other experiments

Assessment will be by means of topic tests and a Science Inquiry investigation. The development of a responsible and safe approach to laboratory work is a desirable outcome of the course. Booklets and other text material will also be provided for the course.

### Physics

The study of Physics is concerned with understanding the nature of forces and motion, and matter and energy. In this course, students will focus on developing an understanding of how objects move and providing descriptions of this motion. They will investigate conservation of energy within systems by describing energy transfers and transformations and identify how the motion of objects can be described and predicted using Newton's Laws of Motion. Students will also have the opportunity to discuss features of the universe including galaxies, stars and solar systems and use the Big Bang theory to explain the origin of the universe. There will be

a strong emphasis on discovery through practical work and investigation and students will use both qualitative and quantitative techniques. Contexts covered may include motor vehicles, rocketry and fun parks.



#### Contacts

Mrs Megan Caporn

Head of Science

Ms Sharyn Bana

Head of Biology

Mr Jacob Marai

Head of Physics

Dr Brodie Reid

Head of Chemistry

## Venture

Venture involves the whole Year 10 group in an expeditionary adventure in a remote, wilderness environment. Boys are randomly divided into several smaller groups, each made up of approximately 12 fellow Year 10 students. Each group is in the care of a Leader who is a volunteer from the teaching staff. Staff and students prepare for Venture throughout the year. This exciting and challenging part of the Year 10 curriculum is seen as the culmination of the Outdoor Education program at Christ Church. It is accepted as being a lasting experience, good for self-esteem, which teaches greater independence and promotes strong interpersonal and communication skills.

#### Contact

Mr Jamie Foster

Director of Planning & Co-Curricular

# Elective Subjects

## Chinese

In Chinese, students will acquire more advanced competencies in Communicating and Understanding. Through topics of particular interest to boys, students will improve competency in their own language and how it functions. Students will:

- gain a deeper understanding of linguistic conventions
- critically reflect on their own culture and values, and those of China and Chinese-speaking countries
- prepare themselves for the Year 11 and 12 courses

Boys are assessed across Communicating and Understanding each term and have an exam in Term 4. Chapter tests of new grammar, characters and vocabulary are set at least twice a term. Continuous, less formal assessment is carried out during the year.

This stream follows the **Year 7-10 Sequence** and is designed to prepare students for the ATAR Chinese: Second Language stream.

ATAR Second Language courses are aimed at students for whom the language for which they are applying is a second (or subsequent) language. These students:

- have typically learnt everything they know about the language and its culture through classroom teaching in an Australian school or similar environment, where English is the language of school instruction
- have typically studied the language for 200–400 hours at the commencement of Year 11
- may have experienced some short stays or exchanges (less than two years in total) in a country where the language is a medium of communication
- do not use the language for communication outside the language classroom
- are not exposed to the language outside the language classroom. That is, students are not spoken to in the language by members of their immediate or extended family, or community members and friends.

### Homework

Regular practice reviewing words and grammatical concepts learned is fundamental in the acquisition of a language and as such, forms an integral part of the course. In Year 10, we expect boys to spend 15-20 minutes each evening reviewing words and grammatical concepts covered in class in addition to any specific homework set by the teacher. Using their Education Perfect platform, students will find it easy to consolidate their learning and build proficiency in their target language.

### Contact

Mr Marcus Sharp  
Head of Languages

## Data Science & Artificial Intelligence

Data Science is the art of obtaining, exploring, and making sense of data. Effective Data Scientists employ skills in a range of disciplines including programming, statistics, mathematical modelling, data acquisition and analysis, machine learning and artificial intelligence. The demand for Data Scientists continues to grow as organisations discover the powerful insights they can draw from large and complex data sets, commonly known as “Big Data”.

In this course students will learn ways to collect and store large amounts of data in a way that can be easily accessed. They will then investigate how they can use the power of languages such as Python to analyse this data for trends and opportunities, making use of a variety of complex data structures and algorithms. Once students have discovered how to analyse data, they will investigate how this data can be applied in the fields of artificial intelligence and machine learning.

Throughout the course students will have the opportunity to work with a range of industry standard tools and systems, ranging from big name cloud computing platforms to versatile hardware such as the Raspberry Pi, to develop intelligent solutions to real-world problems such as AI chat bots and autonomous robots.

This course will cover complex algorithms and advanced programming techniques, so it is highly recommended that students achieved an **A or B grade in Algorithmic Programming and/or Bioinformatics** in Year 9. Students who achieved an A grade in App Development in Year 9 may also consider this course and are advised to discuss this option with their teacher.

Contact

Mr Chris Anderson

Head of Computer Science

## Design & Technology – Materials

The Year 10 courses in Design and Technology aim at developing in students an understanding of the **materials, information** and **systems** that are appropriate to the design and manufacture of products to meet human needs. The underlying focus is the **technology process**, of which the elements of investigating, devising, producing and evaluating are fundamental components. Students gain an understanding of the concept of **enterprise** and learn the relevance of **technology in society**, while being guided through the design and manufacture of a number of practical projects that will develop their **technology skills**. Particular consideration is given to health and safety in the workshop.

This subject is suited to those students who are interested in and enjoy working with resistant materials. Students can expect to build upon the knowledge and skills acquired in Years 7, 8 and 9 Design and Technology, learning how to use a range of new hand tools, power tools and machinery. The underlying focus of this course is the technology process, with particular emphasis on the design and construction of complex projects involving machining techniques appropriate to wood, metal and plastic materials.

Assessment of achievement of the outcomes of these subjects takes the following forms:

- Design development (20%) - development of a design folio using IT and including 3D modelling and computer aided drawing

- Practical project production (70%) - manufacture of practical projects in resistant materials using traditional woodworking and metalworking equipment and machinery, as well as modern 3D manufacturing equipment including the laser cutter and the computer numerically controlled router
- Response (10%) – completion of theoretical assignments and written testing of understanding

Contact

Mr Alec Barbour

Head of Design & Technology

## Digital Media

Designers are creative problem solvers who have learned to see the world a little differently. In this course, students learn how to solve visual problems using a variety of media, embracing traditional and digital technologies to target, engage, entertain, and motivate an audience.

Students will be challenged in a range of approaches to working with images, signs, symbols and text.

They will undertake studies of

- a range of approaches to working with images, signs and symbols such as observation, analysis, expression, communication and imagination
- an understanding of conventions and genres such as figurative, abstract and symbolic
- an understanding of role and function such as documentary, portraiture and narrative
- a range of techniques appropriate to the digital media
- an understanding of pictorial space, composition, rhythm, sequence, scale and structure
- an understanding of formal elements such as colour, tone, texture, shape, form and sound.

This is an extension of the Year 9 Digital Photography and Graphic Design courses but does not preclude students who may not have completed these courses. It has a digital focus that includes the possibility to branch into new industry areas like print publication and illustration, visual identity design, animation and time based graphics. Drawing is an integral part of the course.

Film making is studied as a distinct skill set in this course, in preparation for the Media Production and Analysis course offering in Year 11 and Year 12.

Basic knowledge of Adobe Photoshop and Illustrator and a personal digital camera for use at home to complete tasks would be advantageous.

One of the following art styles will be explored: Realism, Modernism (Dadaism, Surrealism, Futurism), contemporary Australian art; Postmodernism, International art.

The course will be assessed with an emphasis on

- Art Making – body of work through inquiry, art practice and presentation
- Art Responding – analysis, interpretative reflection and personal response.

Contact

Ms Pam Yordanoff

Head of Art



## **Drama**

In Drama, boys develop confidence and self-esteem to explore, depict and celebrate human experience, take risks and challenge their own creativity through a collaborative experience. Students are assessed through a variety of exciting and challenging activities of creation, performance and reflection. They experiment with techniques in movement, voice and characterisation, to shape and focus theatrical effect for an audience. They reflect, respond and evaluate drama and become critical, informed audiences.

The Year 10 Drama course is designed to provide a foundation for Drama in Year 11 and 12. In making and staging drama boys learn how to be focused, innovative and resourceful, and collaborate and take on responsibilities for drama presentations.

The Year 10 Drama course explores

- Physical Theatre
- Musical Theatre
- Scripted Drama and Storytelling
- Realistic and Non-realistic styles
- Original and devised performances
- Ensemble and solo performances
- Reviewing live theatre performance
- Improvisation
- Directing and Designing for the stage

Contact

Mr Gregory Jones

Head of Drama

## **Ethical Hacking & Data Security**

Is your network vulnerable? Is your data safe? What would happen if someone hacked into a power plant and turned off the power to Perth? These questions are becoming increasingly important as more and more of our world relies on technology.

This course will introduce students to the skills needed to keep their data safe and to test that their networks are secure. They will investigate the importance of penetration testing (or ethical hacking) to allow organisations to test the security of their systems and keep us all safe.

Throughout the course students will learn the fundamentals of how data is stored and communicated via networks. They will then be able to investigate potential vulnerabilities in computer systems and the avenues through which attackers exploit them. After learning how to set up and configure a network, students will then learn the basic principles of penetration testing that will allow them to ethically test the security of a network.

This course will involve a large amount of skills-based practical work to supplement the theory component, and students will be given the opportunity to secure their own networks and computer systems while exploiting weaknesses in other systems.

Throughout the course, students can expect to build upon the knowledge and skills that were acquired in the various Year 9 Computer Science courses. Students with no previous experience in Computer Science courses are welcome to enrol in this course, although they will be expected to complete bridging material to be able to participate in the practical programming activities.

#### Contact

Mr Chris Anderson

Head of Computer Science

## French

In French, students will acquire more advanced competencies in Communicating and Understanding. Through topics of particular interest to boys, students will improve competency in their own language and how it functions. Students will:

- gain a deeper understanding of linguistic conventions
- critically reflect on their own culture and values, and those of France and Francophone countries
- prepare themselves for the Year 11 and 12 courses

Students are assessed across Communicating and Understanding each term and have an exam in Term 4. Students will complete regular vocabulary and pronunciation tests throughout the term and will have an assessment at the end of each unit. Boys will also prepare for oral assessments and learn a few lines of French poetry off by heart. The Languages Department currently offers a bi-annual French tour and exchange program for students interested in immersing themselves in the language and culture.

This stream follows the **Year 7-10 Sequence** and is designed to prepare students for the ATAR French: Second Language stream.

ATAR Second Language courses are aimed at students for whom the language for which they are applying is a second (or subsequent) language. These students:

- have typically learnt everything they know about the language and its culture through classroom teaching in an Australian school or similar environment, where English is the language of school instruction
- have typically studied the language for 200–400 hours at the commencement of Year 11
- may have experienced some short stays or exchanges (less than two years in total) in a country where the language is a medium of communication

- do not use the language for communication outside the language classroom
- are not exposed to the language outside the language classroom. That is, students are not spoken to in the language by members of their immediate or extended family, or community members and friends.

## **Homework**

Regular practice reviewing words and grammatical concepts learned is fundamental in the acquisition of a language, and as such, this forms an integral part of the course. In Year 10, we expect boys to spend 15-20 minutes each evening reviewing words and grammatical concepts covered in class in addition to any specific homework set by the teacher. Using their Education Perfect platform, students will find it easy to consolidate their learning and build proficiency in their target language.

## **Contact**

Mr Marcus Sharp  
Head of Languages

## **Global Perspectives**

The study of current international relations in a time of rising tensions and changing global dynamics.

As Russia continues to throw geopolitical order into disarray and the rivalry between the US and China intensifies, the geopolitical landscape of the modern world will be changed forever.

In this Course, students will be exposed to significant global events to understand their impact on, and challenge to, the status quo on global order. Topics such as conflict, the raging advancements in the power of technology, as well as a deep understanding of the intricate dynamics shaping international affairs will be studied.

The Course will provide opportunities for students to identify emerging issues, explore solutions through cooperation and collaboration, while understanding the complexity of the world, competing rights, and geopolitical issues, with empathy for the diversity of human experience.

The Course aims to:

- enable students to critically engage with different and new perspectives;
- to broaden students' understanding of the world around them by focusing significant matters facing the world; and
- encourage awareness of global problems, their impact on people and the environment, and the actions being taken to address them.

Topics include:

- Global conflicts – perspectives on, and the history of, modern conflicts
- Advancements in technology and its impact on warfare and global security

- Law and criminality – both domestic and international
- The increasing rise in authoritarian governments around the world
- East v West – how long can the West hold influence across the globe?

Contact

Mr Andy Greig

Head of Humanities

## **Investing & Enterprise**

The course examines how the commercial world operates and encourages boys to analyse potential career pathways. The emphasis is on creativity and exploration in developing entrepreneurial spirit, with numerous opportunities to test their ability and skills in supportive and competitive environments. Students will study investment opportunities within the Australian economy and be given the opportunity to initiate and develop an idea for a small business.

The investment options will include, but not be limited to, analysis of the Australian share market through the interactive ASX share market game. As this course is a year-long elective unit, detailed study into the reasons for fluctuations in the share market will be possible. The concept of opportunity cost will also be introduced when the students review their investment options after the investing period.

In Term 2 students are required to develop a *hypothetical* business, in the process combining their knowledge, skills, talent and interests. They are empowered as decision-makers, learning valuable lessons from trial, success and error, in demonstrating creative problem solving.

The assessed item of this component of the unit will be to come up with a simple, yet enterprising business idea and complete a traditional business plan as part of a submission for the nationwide Plan Your Own Enterprise Competition. A business plan is a detailed document that can help entrepreneurs to assess whether an idea is likely to be profitable and help them acquire the necessary money to start up a business. Collaboration with other students will be possible to demonstrate and develop real-world working relationships.

In Semester Two, students will work in groups to further develop their enterprise. This will be a part of the e-schools Shark Tank Competition and will see them further explore marketing and developing a prototype for the business.

Overall, it is hoped that this unit will help to further develop the financial literacy and business skills of students who have an interest in this area. Activities will be designed to be interactive and hands-on learning experiences, however, some tasks will need to be completed individually in order to successfully complete the unit.

Contact

Mr Andy Greig

Head of Humanities

## Japanese

In Japanese, students will acquire more advanced competencies in Communicating and Understanding. Through topics of particular interest to boys, students will improve competency in their own language and how it functions. Students will:

- gain a deeper understanding of linguistic conventions
- critically reflect on their own culture and values, and those of Japan
- prepare themselves for the Year 11 and 12 courses

Students are assessed across Communicating and Understanding each term and have an exam in Term 4. Students will participate in a range of activities and can use modern technology to further strengthen their competency in the Japanese language. The Languages Department currently offers a bi-annual tour and exchange program to Japan for students interested in immersing themselves in the language and culture.

This stream follows the **Year 7-10 Sequence** and is designed to prepare students for the ATAR Japanese: Second Language stream.

ATAR Second Language courses are aimed at students for whom the language for which they are applying is a second (or subsequent) language. These students:

- have typically learnt everything they know about the language and its culture through classroom teaching in an Australian school or similar environment, where English is the language of school instruction
- have typically studied the language for 200–400 hours at the commencement of Year 11
- may have experienced some short stays or exchanges (less than two years in total) in a country where the language is a medium of communication
- do not use the language for communication outside the language classroom
- are not exposed to the language outside the language classroom. That is, students are not spoken to in the language by members of their immediate or extended family, or community members and friends.

### Homework

Regular practice reviewing words and grammatical concepts learned is fundamental in the acquisition of a language and as such, forms an integral part of the course. In Year 10, we expect boys to spend 15-20 minutes each evening reviewing words and grammatical concepts covered in class in addition to any specific homework set by the teacher. Using their Education Perfect platform, students will find it easy to consolidate their learning and build proficiency in their target language.

### Contact

Mr Marcus Sharp  
Head of Languages

## **Marine Science**

This course is limited to **55** students. The course deals with aspects of Marine Biology and Environmental Science, SCUBA diving and recreational boat handling. On top of these broad areas, the course delves into the science of ecology, sustainability and conservation to ensure students leave school with a level of understanding that enables them to support positive environmental change into the future. All boys participating in the course will undertake accreditation for an Open Water SCUBA qualification and a Recreational Skippers Ticket (RST). There will be a significant practical component to the course as well as practical and theoretical examinations for both the SCUBA diving and Recreational Skipper Ticket. The SCUBA and RST courses have rigorous theoretical examinations with 80% pass requirements to meet certification guidelines.

### **Special Requirements**

Students need to be able to display a competent swimming ability of no less than Royal Life Saving Bronze Star. Students will be required to pass a specific medical examination for SCUBA diving in order to participate in the practical component of SCUBA diving. Students who are asthmatic or diabetic will not be able to obtain a medical certificate for SCUBA diving. It is important that any Medical Certificate obtained is from a medical practitioner qualified to provide medicals for recreational diving. Students should wait until information regarding the medical requirements of this course are given out in Term 3 before obtaining a Medical Certificate.

### **Fees**

- An extra fee of approximately \$700 will be levied to cover the SCUBA course and related transport costs and Recreational Skippers Ticket (RST) administration fee.

### **Contacts**

Mr Tom Shalders & Mr Arvi Pocock  
Teachers in Charge of Marine Science

## **Mechatronics: Arduino-powered buggies**

This subject is based on elements of mechanical, electrical and computer engineering. Students will typically produce a two wheel buggy that operates autonomously and/or by remote control. The subject is suited to those students who are interested in the design, construction and programming of physical devices. Arduino chips will be programmed and used to drive the electronics platform.

Students can expect to

- Design and configure electrical circuits
- Learn to program Arduino devices using the C programming language
- Design structural components using CATIA 3D modelling software
- Produce structural components using the 3D printer and laser cutter

Students will have a functional prototype for their buggy at the conclusion of Semester 1. During Semester 2 students will design their own robot using their buggy as a starting point for their own requirements.

Contact

Mr Alec Coulter

Engineering Studies Teacher

## **Music Advanced**

The Music Extension course is designed for students who are capable musicians, passionate about having a deeper understanding of music history, aural, theoretical and performance skills.

Students taking this course can expect to:

- Develop a historical perspective and understanding of music across a variety of styles including Classical, Jazz and Contemporary Music, and such as including world, film and Australian music.
- Perform as a soloist, and be challenged through a chamber work/band unit
- Write and perform music for yourself and your peers
- Have a deeper understanding of theoretical and aural concepts and skills
- Learn about recording using the CCGS Rock Room recording studio and equipment
- Watch and review live performances

The course provides an excellent background for the ATAR Music course in Years 11 and 12.

### **Special Requirements**

The student must be undertaking either instrumental or vocal lessons, either inside or outside the School.

Contact

Ms Chiara Kingwell

Director of Music

## Music General

The Music General course is designed for students who are keen musicians, or passionate music listeners who have an interest in learning and analysing a variety of musical styles, genres and production methods.

Students taking this course can expect to:

- create their own music, both on instruments and with the help of computer programs and digital audio workstations like DJ decks
- Learn about recording using the CCGS Rock Room recording studio and equipment
- Experience music making as a class and individually
- Learn basic notation, aural and theory skills so they can express their musical ideas
- Watch and review live performances

This course leads into the Year 11 General course, or possible Certificate pathway. It is not a requirement of this course that students have individual instrumental lessons, but this foundation is always beneficial to assist classroom learning.

Contact

Ms Chiara Kingwell

Director of Music

## Sports Science

This course focuses on both the practical and theoretical components of sport performance. An interest in sport and improving performance is important. This course will prepare boys for future success in ATAR Physical Education Studies. It is important to note this is an elective and will be taken in addition to the compulsory Physical Education course.

Approximately 50% of the course time will be spent in a practical environment covering skilled movement patterns, tactics, positioning and gameplay while the other 50% will be in the classroom. The theoretical focus will be laboratory-based with the use of classroom experiments and hands on activities.

The theoretical concepts covered include

1. Sports psychology – How can the mind help or hinder performance
2. Exercise physiology – How does the body work during exercise?
3. Functional anatomy – What is the structure of our body? How do we move?
4. Coaching – Using outside expertise to motivate a sportsman, while at the same time providing knowledge and feedback
5. Biomechanics – The physics behind body movement and projectiles
6. History of sport – Is Australia as a country any good at sport? What is our sporting culture? Where do our sports come from?

## Assessment

The final course grade will be a mixture of:



- Practical ability assessed across a number of sports including but not limited to badminton, touch rugby and volleyball **50%**
- Theoretical component including topic tests, assignments and laboratories **50%**

#### Contact

Mr Luke Farmer

Head of Health & Physical Education

## Visual Arts

Art is a form of communication and expression: a visual language, which deals with the construction and interpretation of both personal and cultural meanings. It is a catalyst to developing intellectual, imaginative, creative and intuitive powers.

The Year 10 course provides students with the opportunity to use visual language and artistic conventions, in both written and practical work. This is a highly expressive and personal course.

**Art Making:** Students learn to develop and refine their ideas and techniques to resolve artworks by documenting the design, production and evaluation processes of their artworks. They will extend their knowledge of art practices, through adaptation, manipulation, deconstruction and reinvention techniques, and use their understanding of a variety of art styles in the making of their 2D and 3D artworks. Drawing is an integral part of the course. Students extend their knowledge and practise of safe and sustainable visual arts practice. Resolved artworks are exhibited and evaluated, with consideration to their own artistic intentions, personal expression, and audience.

**Art Responding:** Students develop greater understanding of how global contexts of culture, time and place impact on the development of ideas and production of art forms in the artistic process. They continue to explore artistic influences, while being encouraged to express greater individualism in their application of ideas and materials. Students are provided with opportunities to reflect on traditional and/or contemporary artworks using a breadth of critical analysis frameworks, incorporating visual language, art terminology and conventions.

This course provides visual and tactile experiences in 2D and 3D artforms. Studio areas are selected from

- Drawing and/or illustration
- Printmaking: the techniques and processes associated with a variety of printmaking techniques and the production of an edition of prints
- Ceramics: a variety of methods of hand building clay forms will be explored. Wheelwork opportunities are also available
- Painting: covers a variety of approaches to painting techniques in watercolour, gouache, acrylic or oils
- Textiles: provides students with the opportunity to apply their designs to fabric using traditional and contemporary technologies
- Graphic Design and New Media: students will produce a solution to a problem in visual communication. Practical projects will have real application. Students will experience use of digital cameras, scanners and image manipulation using computer programs such as Adobe Photoshop
- Sculpture: production of a sculpture experimenting with both the additive or subtractive method

One of the following art styles will be explored: Realism, Modernism (Dadaism, Surrealism, Futurism), contemporary Australian art; Postmodernism, International art.

The course will be assessed with an emphasis on

- Art Making – body of work through inquiry, art practice and presentation
- Art Responding – analysis, interpretative reflection and personal response.

Contact

Ms Pam Yordanoff

Head of Art

## Studies Office Contacts

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