



St Hilda's  
ANGLICAN SCHOOL FOR GIRLS

# YEAR 10 HANDBOOK 2020

# WELCOME TO YEAR 10

In Year 10 students can look forward to an exciting and challenging year during which they will experience the pleasures and demands of their outdoor education camp, work experience, community service and course information sessions in preparation for Year 11. In addition, Year 10s have examinations in Term 4.

Year 10 is filled with opportunities for social growth and academic achievement. There are many activities in mainstream school life as well as in cocurricular areas. Girls are encouraged to follow their interests and become involved in all aspects of life at St Hilda's.

As part of a supportive wellbeing program, tutors work with their wellbeing groups to monitor student progress and guide and assist girls throughout the year. Girls have the benefit of interesting guest speakers who address them on pertinent topics such as health and drug education, study skills and world issues. They also learn about safety in the cyber world, friendships, community awareness and a variety of life skills.

All girls undertake a seven day mobile expedition at Wooleen Station in the Murchison which provides personal challenges and develops interpersonal skills while they use the outdoor skills they have learned on previous camps.

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## YEAR 10 COURSES

| Courses   | Time*     |
|---|-----------|
| • <a href="#">Career and Enterprise</a>                               | 1 period  |
| • <a href="#">English/English as an Additional Language/Dialect**</a> | 5 periods |
| • <a href="#">Mathematics</a>   | 5 periods |
| • <a href="#">Physical and Health Education</a>                       | 2 periods |
| • <a href="#">Religious and Philosophical Studies</a>                 | 1 period  |
| • <a href="#">Science</a>   | 5 periods |
| • <a href="#">Humanities</a>  | 5 periods |

\* One period is approximately 50 minutes

\*\* English as an Additional Language/Dialect (EALD) is available and the number of periods will be negotiated.

### Options

Choose two or three options. Two and four period options are available as indicated below. Select one four period option and either one or two additional options to total eight periods. Please note that the School will not run an option if too few students select the course.

#### Four period options

[Chinese Second Language](#), [Drama](#), [French Second Language](#), [Japanese Second Language](#), [Materials Design and Technology \(Textiles\)](#), [Media Production and Analysis](#), [Music](#), [Photography Design](#), [Physical Education Studies](#), [Visual Art](#)

Literacy Support is available as a four period option. Selection criteria will apply.

#### Two period options

[Accounting and Finance](#), [Business Management and Enterprise](#), [Digital Graphics and Design](#), [Drama in Practice](#), [Extra English](#), [Food Science and Technology](#), [Media Production and Analysis](#), [Music](#), [Neuroscience and Molecular Biology](#), [Philosophy](#), [Photography Design](#), [Software Development and App Design](#), [Textiles](#), [Visual Art](#)

# COURSE DESCRIPTIONS YEAR 10

## ACCOUNTING AND FINANCE

In the business world as well as in our personal lives, accounting is one discipline of study that all people, regardless of occupation, should have some knowledge of as the same fundamental accounting principles always needs to be applied. Everyone has to make numerous financial decisions on a personal or business level, many of them with far reaching consequences. This course provides students with the opportunity to learn the basic principles of accounting and finance by creating an understanding of the systems and processes through which financial practices and decision making are carried out, as well as the ethical, social and environmental issues involved. It will also provide the foundation to the ATAR course Accounting and Finance in Year 11 and 12.

The focus for the first half of the year is personal finance. Students are introduced to the concepts, principles and terminology used in financial decision making and management on a personal basis.

Students learn to calculate income tax payable, complete a tax return form, prepare budgets and bank reconciliation statements.

The focus for the second half of the year is accounting for small cash entities. Students extend their knowledge of the fundamental principles and conventions of accounting and finance to learn how these apply to the establishment and operation of the business they will create. They get a chance to run their business on market day and learn about financial record keeping on a cash basis for their business. Students learn the main issues involved in business decision making and carry out simple analysis to determine the financial performance and position of their business.

### Feedback and reporting

Students receive feedback on a variety of tasks including case studies, research, assignments and presentations.

### Homework

Completion of class work, research and assignments.

## BUSINESS MANAGEMENT AND ENTERPRISE

The focus of this course is on establishing and operating a small business in Australia. Opportunities are provided to explore alternative types of businesses and the legal requirements to establish a small business together with the factors that contribute to business success.

Entrepreneurship and innovative thinking are introduced, generating ideas and proposals that may be suitable for business ventures. These proposals are developed in groups to produce a business plan in preparation to enter the Plan Your Own Enterprise Competition.

Students will discover the elements of the marketing mix. This knowledge will then be applied in their business plan and in an advertising campaign for a product of their choosing.

Finally, students will learn about the employment cycle; how to attract applicants, make a selection, remunerate employees, manage performance and terminate the employment relationship.

The Business Management and Enterprise course aims to prepare all students for a future where they will need to identify possibilities and create opportunities within a business environment. In an age when many business practices and ethical standards are being examined, this course will give students the ability to make sound and ethical decisions based on knowledge and understanding. The course aims to empower students to make business decisions based on critical thinking that are in line with their own values and the values of the society in which they live. They will be well equipped to be proactive participants in the dynamic world of business, behaving responsibly and demonstrating integrity in business activities.

### Feedback and reporting

Students will receive feedback on a variety of assessment types – Investigation, Production and Response.

### Homework

Completion of class work and assignments.

## CAREER AND ENTERPRISE

The focus of this unit is personal independent career development. Opportunities are provided to develop career competencies in preparation for undertaking work experience. This unit facilitates the study of career management, corporate citizenship, and environmental trends and influences through a range of alternative scenarios such as particular occupations, industries, work patterns, settings or roles.

### Homework

Approximately one hour per week.

### Feedback and reporting

Students receive feedback on a variety of assessments. A range of assessment tasks contribute to their grade, including the Work Experience Journal, and the Supervisor Report, which is completed by their Supervisor on their last day of Work Experience.

### Homework

Completion of class work and assignments.

## DIGITAL GRAPHICS AND DESIGN

This is an exciting and engaging course which develops skills in digital technology. Students will be introduced to Humanoids, Virtual Reality, Drones, Robots and a number of software and multimedia applications that will focus on specific design and software skills as well as creative expression. The focus is on an interactive and hands-on learning experience, engaging with the latest devices. Students will also use Photoshop, Animate and create websites, Apps, 3D Digital Art and printing.

The main applications that students will use are Adobe Photoshop, Animate and Tinker Cad. Students will also learn to script web pages with HTML5, CSS3 and JavaScript.

### Feedback and reporting

Assessment is based on portfolio work and on screen assessment.

### Homework

Students complete class work.

## DRAMA

### Drama (four period option)

Drama not only encourages students to think about and develop the skills associated with theatrical performance, but it also provides an opportunity for them to explore their own perceptions and creative responses to the world around them. Students work independently and collaboratively to perform devised and scripted drama in different forms, styles and performance spaces. They study the theories and techniques of a range of practitioners, and explore and reflect on the roles of the actor, dramaturge, director, playwright, designer and stage manager. They work both independently and collaboratively to plan, direct, produce, rehearse and refine performances, and are introduced to a variety of theatrical styles including, Realism, Solo Improvisation, Absurdism, Surrealism, Australian Drama and Physical Theatre.

Students continue to refine and extend their understanding of the elements of drama, and analyse and evaluate how combinations of these convey meaning. They convey physical and psychological aspects of roles and characters consistent with the intentions of dramatic forms and performance styles. They practice, refine and extend the expressive capacity of voice and movement and continue to maintain focus, manipulate space and time, language, and ideas whilst experimenting with both linear and episodic plot forms to explore the way that narrative shapes and structures dramatic action. Students continue to experiment with mood and atmosphere, use devices such as contrast, juxtaposition and dramatic symbol. Students extend their understanding of the power of lighting, sound, props, costumes, multimedia and staging equipment, making deliberate artistic and aesthetic choices and shape design elements to unify dramatic meaning for an audience. Students are involved in a compulsory, formal performance where they showcase their class work to the public in a supportive environment.

As they experience drama, they also draw on drama from a range of cultures, times and locations and consider drama in international contexts. They continue to explore the drama and influences of Aboriginal and Torres Strait Islander Peoples, and those of the Asia region. Students enrich their own drama making and learn that particular dramatists can be identified by the style of their work. They critically evaluate and respond to dramatic work, making informed judgements about their own drama making and the drama they see as audiences.

## Feedback and reporting

After each task students receive diagnostic feedback so that they can recognise areas of strength and focus on areas for development. Students complete written responses through a series of short answer questions and extended responses which assist them to understand drama in a context and how performance choices impact on an audience. The assessment types are: Making and Responding.

## Homework

Approximately two hours a week.

It is recommended that those students wishing to pursue Drama – ATAR enrol in this course.

## DRAMA IN PRACTICE (TWO PERIOD OPTION)

This course covers a very similar program of study to the four period option, however, with less contact hours the emphasis is more on a practical exploration rather than a theoretical focus. Students work independently and in teams to perform devised and scripted drama in different forms, styles and performance spaces. Students continue to refine and extend their understanding of the elements of drama, and analyse and evaluate how combinations of these convey meaning and aesthetic effect. Students actively develop performance techniques through improvisation, play building and script analysis, and are exposed to a wide range of stimuli to bring their creative ideas through to fruition. Students have the option of participating in a public Showcase at the end of the year. There is reduced emphasis on the written component of the course compared to the four period Drama course.

## Feedback and reporting

After each task students receive diagnostic feedback so that they can recognise areas of strength and focus on areas for development. The assessment types and are: Making and Responding.

## Homework

Approximately one hour a week.

## ENGLISH

The course aims to consolidate skills learned in Year 8 and 9 and to develop students' analytical skills with a view to facilitating the transition to upper school English courses. The texts studied are more complex than previously studied and students focus on contexts, representations and conventions. In their writing, students refine their essay writing skills and develop their analytical, discursive and reflective writing. In their study of each unit, students are introduced to the reading practices and critical vocabulary of the subject. In Term 4 students will complete a two period a week introduction to either WACE English or Literature according to their choice of subject.

### Feedback and reporting

Assessment is continuous across the year and includes a variety of oral and written tasks, both creative and analytical. Assessment tasks focus on four areas: Reading, Writing, Viewing, and Speaking and Listening. Students receive feedback on their performance in individual assessment tasks.

### Homework

Two hours per week (reading, writing and language study).

## EXTRA ENGLISH

Extra English is designed to give guidance and assistance to girls who need to consolidate comprehension skills. Skills and understandings for the analysis of texts will be further developed by way of Direct Instruction.

### Feedback and reporting

Continuous assessment based on class work, assignments and tests.

\*\* A four period option of Literacy Support is available for students who meet the selection criteria.

## ENGLISH AS AN ADDITIONAL LANGUAGE/DIALECT

Students who meet the eligibility requirements and who intend to study English as an Additional Language at Years 11 and 12 levels should take this course. They read a variety of fiction and non fiction texts, study current affairs and improve their writing skills. They refine their knowledge of English grammar and vocabulary. They also have opportunities to learn about Australian culture and global issues through the media of film, TV documentary, and journalism.

### Feedback and reporting

The following skills are assessed: report and essay writing, formal letter and feature articles as well as reading comprehension, listening comprehension, and oral presentation. Assessment is continuous and based on class work, assignments and tests.

## FOOD SCIENCE AND TECHNOLOGY

Students will have opportunities to create designed solutions in the Food Specialisations Context. This will include healthy eating through the skills and knowledge of nutrients and the application of the principles of food safety, preservation, preparation, presentation and sensory perceptions.

Students work creatively with food and use technology to produce exciting and innovative dishes and meals to satisfy a variety of design criteria. Students explore ways in which individuals select and use foods, and how this is determined by family customs, lifestyle, budget, availability of food and food preparation skills. Meals are planned to meet the dietary needs of different people. Students prepare meals using various cooking methods. They identify trends in the food industry that influence their food selections. Factors that affect the local food supply, personal food production systems and food sustainability are examined. They identify the laws and regulations that ensure a safe, local food supply and the preparation and storage techniques that prevent food contamination.

### Feedback and reporting

Students will be provided with verbal and written feedback on their practical work and written assignments.

### Homework

Complete class work.

## HUMANITIES

Students undertake four separate units of study - Economics, Geography, History, and Politics and Law.

### Geography

Students examine the geographies of human wellbeing and the reasons for variations in wellbeing between more economically developed and less economically developed countries. They also examine the human-induced environmental changes that challenge sustainability in marine environments and the strategies to manage these human impacts.

### History

Students develop their historical understanding through key concepts, including evidence, continuity and change, cause and effect, perspectives, empathy, significance and contestability. These concepts are investigated within the historical context of the modern world and Australia from 1918 to the present, with an emphasis on Australia in its global context. Students investigate the causes, events and impact of war on Australian society and the world through a study of World War II. The background to the struggle of Aboriginal and Torres Strait Islander Peoples for rights and freedoms before 1965 was also explored.

### Economics

Students are introduced to the concept of economic performance and living standards while continuing to further their understanding of the concepts of making choices, interdependence, specialisation, and allocation and markets through examining contemporary issues, events and/or case studies investigating the reasons for variations in the performance of economies. They explore the nature of externalities and investigate the role of governments in managing economic performance to improve living standards. They inquire into the ways businesses can manage their workforces to improve productivity.

### Politics and Law

Students develop their understanding of justice at home and overseas by examining the key features and values of Australia's system of government compared with other systems of government. The threats to Australia's democracy and the safeguards that protect our democratic system are also examined. Students explore Australia's role and responsibilities at a global level including international agreements Australia has ratified and examples of how they shape government policies and laws such as the Universal Declaration of Human Rights.

### Feedback and reporting

In each unit of study there is a strong emphasis on students developing an increasing independence in critical thinking and skill application, which includes questioning, researching, analysing, evaluating, communicating and reflecting. Students apply these skills to investigate events, developments, issues and phenomena, both historical and contemporary.

Each unit/discipline has its own specialised skills.

### Homework

Approximately one hour per week.

## LANGUAGES

### Eligibility to undertake second language study

Language courses in Year 7-10 are aimed at students for whom the intended language of study is a second, or subsequent, language and to enter into Year 11 and 12 language courses students will be required to complete an application for permission to enrol with School Curriculum and Standards Authority. As such, Second Language students have not been exposed to, or interacted in, the language outside the Australian language classroom. They have typically not resided or attended school in a country where the language is spoken and have learnt everything they know about the language and culture through classroom teaching in an Australian school, where English is the language of school instruction. Further advice relating to languages courses can be found at [www.scsa.wa.edu.au](http://www.scsa.wa.edu.au) which illustrates the government criteria designed to assess the degree to which a student has had previous experience in, and exposure to, the language they wish to study.

### CHINESE SECOND LANGUAGE

The Year 10 Chinese course is designed to equip students with the skills to function within an increasingly globalised society, and a culturally and linguistically diverse local community providing the foundation for life long language learning. It provides students with the opportunity to further their achievement of specific overarching learning outcomes of Listening and Responding, Spoken Interaction, Viewing, Reading and Responding, and Writing.

This course allows students to share and obtain information from others related to personal identity, aspects of living in Chinese speaking communities, and popular culture. They begin to develop an understanding of what it is to be Chinese and Chinese speaking, and compare their own lives to those of others in Chinese speaking communities. Students share information about their own sense of space or place, and develop a sense of space and place related to China and Chinese speaking countries. They begin to develop the skills needed to travel within, and learn more about Chinese speaking communities and cultures.

Students use Chinese to interact and communicate with others in two unit contexts: Teenagers and Things to Do. This course assumes that students have completed Years 8 and 9 Chinese or equivalent.

The focus for Semester 1 is **青少年 (teenagers)**. Students share and obtain information from others related to personal identity, aspects of living in Chinese speaking communities, and popular culture. They begin to develop an understanding of what it is to be Chinese and Chinese speaking, and compare their own lives to those of others in Chinese speaking communities.

Semester 2 focuses on the topic of **课余生活 (things to do)**. Students share information about their own sense of space or place, and develop a sense of space and place related to China and Chinese speaking countries. They begin to develop the skills needed to travel within, and learn more about, Chinese speaking communities and cultures.

Students examine the activities that are popular with youth today, including their school life, and share information about where and how they spend their leisure time. They express their opinions in simple discussions and learn how to receive and provide directions of how to get around. Students learn about China and its festivals, and to communicate with Chinese friends.

Audio visual materials, online activities, cooking and language games are incorporated into the course. Students are regularly given the opportunity to work on self access programs which allow them to work at their own pace on specific skills development.

By the end of the year, students will have developed skills to:

- give answers to often asked questions about school

- write about a typical day at school
- listen to a short text on familiar topics and answer questions in English
- read a variety of texts on familiar topics and demonstrate comprehension in English
- show an understanding of the Chinese way of life

#### Feedback and reporting

Regular role play and quizzes are used to evaluate conversation and character recognition. There are oral and reading assessments and assignments which may be linguistically based or require research by students on a cultural topic. At the end of each unit students complete a test across the four strands of Listening, Reading, Speaking and Writing. A grade will be given based on these assessment tasks. As well as a grade, the student's achievements are described according to the following outcomes: Listening and Responding, Spoken Interaction, Viewing, Reading and Responding, and Writing.

#### Homework

Two hours each week learning vocabulary and grammar, as well as completion of exercises and assignments.

### FRENCH SECOND LANGUAGE

An ability to communicate in French provides opportunities for students to learn about the rich and diverse French culture, traditions and belief systems. In this course, students analyse, process and respond to texts to understand aspects of the language and culture of a range of French speaking communities throughout the world. This course assumes that students have completed key grammatical structures, verbs and vocabulary covered in Years 7 to 9.

This course introduces students to the French language and culture from a personal perspective, enabling them to share personal information and obtain information from others related to aspects of living in a French speaking community and youth culture. Students extend their knowledge of French speaking countries. They begin to develop the skills to travel within France, and learn more about French speaking communities and cultures in order to understand the diversity of the French speaking world.

The following learning outcomes are addressed in the course:

- listening and responding, and speaking
- viewing, reading and responding
- writing
- cultural understandings
- application of knowledge of the system of French to assist them to make meaning and create text
- language learning strategies

The course incorporates a variety of tasks and resources including critical thinking and collaborative tasks and multi-media interactive resources and all students participate in the state wide Alliance Française examination.

#### Feedback and reporting

Students gain feedback on their development through assignments, short tests and skills assessments. There is a final examination based on the whole of the course.

#### Homework

Approximately one and a half hours per week learning vocabulary, grammar and completing assignments and worksheets.

## JAPANESE SECOND LANGUAGE

In this course, students continue to develop the necessary understandings and values to communicate effectively with Japanese speakers in both social and workplace contexts in Australia, Japan and elsewhere. They develop a stronger sense of their personal identity and greater respect for people of Japanese speaking communities. Students use Japanese to interact and communicate with others in two unit contexts: Teenagers and The Neighbourhood. This course assumes that students have completed Years 8 and 9 Japanese or equivalent.

In Semester 1, the topic "**teenagers**" introduces students to the Japanese language and culture enabling them to share personal information and obtain basic information from others related to personal identity, daily life of Japanese speaking communities, and popular activities. Students interact with others and develop their communication skills within the focus topic of shopping. Students use Japanese to make purchases, role play shopping situations and learn to use Japanese currency.

In Semester 2, the topic "**the neighbourhood**" focuses on the topics of locations, the neighbourhood and Japanese food. Students learn how to ask for and give directions, locate items and shops, and learn more about cultural differences between Australia and Japan.

Students use authentic resources such as menus and department store guides in speaking, reading and writing tasks. They recognise and write kanji specific to topics and course content. Importance is given to developing their ability to understand, speak, read and write Japanese. A variety of language learning strategies and teaching techniques is used, including SMART technologies, iPod Touch/iPad and audio visual technology, in a self access learning environment. Students also work with language assistant support staff.

A unique feature of this course is the oral communication component which allows students to build their confidence in speaking Japanese. Students use photos and other items of interest to engage in role play and conversation with staff in realistic situations to help build their confidence in using the language.

The topics explored in both units ensure coverage of the three nationally required themes of the individual, the Japanese speaking communities and the changing world.

### Feedback and reporting

Differentiation of the course provides for students to work with staff regularly and receive appropriate feedback. Feedback is ongoing with students who are encouraged to work at their own pace.

The development of language skills is assessed and students are assigned a grade at the end of the year. There is a final examination based on course content and topics.

### Homework

Approximately one and a half hours per week learning vocabulary, kanji and grammar with short exercises and completion of assignments and worksheets.

## MATERIALS, DESIGN AND TECHNOLOGY (TEXTILES)

### Materials, Design and Technology (four period option)

Do you have a flare with fashion or a desire to design? This course focuses on developing students' skills in dressmaking and textile design. Combining the knowledge of pattern manipulation and their imagination and creative flare, students design and create articles of clothing and fashion accessories. Students are introduced to a range of production techniques and equipment, develop skills, generate plans and realise their design ideas through the production of their design project.

Students are introduced to principles and practices of design, and the fundamentals of design required to manufacture products for themselves and clients. They learn to communicate various aspects of the design process using written and visual forms of communication, including fashion illustration and 2-D working drawings. Throughout the process, students learn about textile materials, including their origins, classifications, properties and suitability for purpose. Analysing target and niche markets, students gain an understanding of the local textile industry and become informed consumers. Students work in a defined environment and learn to use a variety of relevant production technologies relating to the textiles industry safely and effectively.

#### Feedback and reporting

Students will be provided with verbal and written feedback on design fundamentals, production techniques and response tasks.

#### Homework

Students are required to complete assignments requiring approximately 30 minutes per week.

### Textiles (two period option)

The focus of this option is textile and clothing production with an emphasis on practical work. Students are introduced to a range of production techniques and equipment, and develop skills, generate plans and realise their design ideas through the production of their casual dress and accessory. They learn to communicate various aspects of the design process within the structure of design, make and appraise. Throughout the process, students learn about materials, including their origins, classifications, properties and suitability for purpose. Analysing target and niche markets, students gain an understanding of the local textile industry and become informed consumers. Students work in a defined environment and learn to use a variety of relevant production technologies safely and effectively.

#### Feedback and reporting

Students will be provided with verbal and written feedback on design fundamentals, production techniques and response tasks.

#### Homework

Students are required to complete assignments requiring approximately 15 minutes per week.

## MATHEMATICS

Students study the Australian Curriculum: Mathematics v8.1. They are exposed to essential mathematical skills and knowledge in Number and Algebra, Measurement and Geometry, and Statistics and Probability. Their numeracy capabilities required for their personal, work and civic life are developed and the fundamentals on which mathematical specialties and professional applications of mathematics are built.

All students benefit from access to the power of mathematical reasoning and learn to apply their mathematical understanding creatively and efficiently. They encounter carefully paced, in depth study of critical skills and concepts, encouraging them to become self motivated, confident learners through inquiry and active participation in challenging and engaging experiences.

The proficiency strands Understanding, Fluency, Problem Solving and Reasoning are an integral part of mathematics content across the three content strands: Number and Algebra, Measurement and Geometry, and Statistics and Probability. The proficiencies reinforce the significance of working mathematically within the content and describe how the content is explored or developed. They provide the language to build in the developmental aspects of the learning of mathematics.

### *At Year 10 level:*

Understanding includes applying the four operations to algebraic fractions, finding unknowns in formulas after substitution, making the connection between equations of relations and their graphs, comparing simple and compound interest in financial contexts, and determining probabilities of two and three step experiments.

Fluency includes factorising and expanding algebraic expressions, using a range of strategies to solve equations and using calculations to investigating the shape of data sets.

Problem Solving includes calculating the surface area and volume of a diverse range of prisms to solve practical problems, finding unknown lengths and angles using applications of trigonometry, using algebraic and graphical techniques to find solutions to simultaneous equations and inequalities, and investigating independence of events.

Reasoning includes formulating geometric proofs involving congruence and similarity, interpreting and evaluating media statements, and interpreting and comparing data sets.

By the end of Year 10, students recognise the connection between simple and compound interest. They solve problems involving linear equations and inequalities. Students make the connections between algebraic and graphical representations of relations. They expand binomial expressions and factorise monic quadratic expressions. Students find unknown values after substitution into formulas. They perform the four operations with simple algebraic fractions. Students solve simple quadratic equations and pairs of simultaneous equations.

Students solve surface area and volume problems relating to composite solids. They recognise the relationships between parallel and perpendicular lines. They use triangle and angle properties to prove congruence and similarity. Students use trigonometry to calculate unknown angles in right-angled triangles.

Students compare data sets by referring to the shapes of the various data displays. They describe bivariate data where the independent variable is time. Students describe statistical relationships between two continuous variables. They evaluate statistical reports. Students list outcomes for multi-step chance experiments and assign probabilities for these experiments. They calculate quartiles and inter-quartile ranges.

Mathematically talented students are offered extension activities from a range of sources. These include competitions and Mathematics Olympiads organised by the Australian Mathematics Trust (AMT), the University of New South Wales the Mathematics Association and several universities. They also complete the more challenging extension activities from their class texts and other resources.

## **Differentiating classes in Year 10 Maths**

During Year 10, mathematics concepts become significantly more abstract so we consider that it is increasingly important to cater for the wider range of student abilities. Our aim is for each student to experience success and to enjoy learning mathematics, no matter what their ability. In addition, we consider students' future aspirations for the study of mathematics in Years 11 and 12 when making class placements. Therefore we offer three different mathematics courses for the Year 10 cohort:

### ***10A Mathematics***

This course prepares students for the Mathematics Methods course in Year 11.

It covers the Year 10 Australian Curriculum given above as well as most of the 10A Australian Curriculum content. By the end of the year, students in this course will also have extended the trigonometry topic to include the unit circle, sine and cosine rules and trigonometric graphs. Students will manipulate surds and use this to simplify solutions of quadratic equations and trigonometry in three dimensions. They also transform a variety of graphs including parabolas, exponentials, hyperbolas and circles and solve exponential equations. Students interpret mean and standard deviation and investigate bivariate data sets. They also solve problems involving surface area and volume of pyramids, cones and spheres and composite solids.

### ***10B Mathematics***

This course prepares students for the Mathematics Applications course in Year 11.

It covers most of the Year 10 Australian Curriculum as given above and considers the ability level of the girls in this course and chooses the content and sets the assessments accordingly.

### ***10 Mathematics Course 2***

This course prepares students for the Mathematics Essentials course in Year 11.

It covers the essential components of the Year 10 Australian Curriculum as given above to the level most appropriate to the students' abilities within this course.

Generally there are four 10A Mathematics classes, two 10B Mathematics classes and one Course 2 class. Each of these classes is formed on the basis of previous assessment results and the movement of students between these classes occurs up to three times each year. Further information regarding differentiation can be found in the Extension and Enrichment booklet.

### **Feedback and reporting**

Each student's progress is monitored by her performance on tests and investigations set within their respective course. Informal assessment and monitoring occurs in each class by the teacher.

Students will receive two grades, the first and most important for their progress in their respective course, and the second for their progress against the whole Year 10 Australian Curriculum.

### **Homework**

Students are expected to complete between 20 and 30 minutes each night.

## **MEDIA PRODUCTION AND ANALYSIS**

Media Production and Analysis combines creativity and analysis to explore the ways that film and television texts present themes and issues. The media are an important and ever increasing part of our culture. Media institutions are becoming the most powerful entities in our globalised world which makes it crucial for students to understand their potential for power. The media provide entertainment and information, and tell stories about ourselves and others. They continue to produce works which are enjoyed and appreciated by audiences for their beauty, entertainment, ingenuity and originality. The media can amuse us, stimulate us, move us and, at times, upset or anger us. They provoke discussion and the development of opinions, points of view and values. Access to a wide range of media enables students to understand the capacity of the media and to stimulate creativity in their own productions.

### **Media Production and Analysis (four period option)**

Media Production and Analysis combines creativity and analysis to explore the ways that film and photography texts present stories, themes and issues. Students study film and photography genre with an emphasis on stylistic conventions perceived to be of relevance to a teenage audience. These media texts construct worlds that often engage adolescents, and students learn to deconstruct the representations in these worlds.

Through engagement with this course, students become proficient film and photography producers using digital filming and editing facilities. They experiment with abstract art styles, manipulate persuasive advertising techniques within print media and explore narrative conventions through their original webisodes.

The course is recommended for students who wish to gain some practical film making and photography skills, who wish to become more media literate and/or who wish to pursue Media Analysis and Production in Year 11.

#### Feedback and reporting

Students receive continuous feedback on all aspects of their progress including production, written and oral work.

#### Homework

Because of the emphasis on production, it is envisaged that most work will be completed in class time but some students may choose to complete some production aspects outside of school hours. Media equipment will be available to loan for this purpose.

### **Media Production and Analysis (two period option)**

This option is an abridged version of the four period Media Production and Analysis course.

#### Feedback and reporting

Students are required to complete three assessment tasks, taking the form of an investigation, a production and a response. Tasks include the production of an episode of TV drama or short film, a television news bulletin and a documentary film.

## MUSIC (FOUR PERIOD OR TWO PERIOD OPTION)

Students have many opportunities to perform and compose music in a wide range of styles using the software program Sibelius. They compose a variety of ensemble pieces including a jazz arrangement for a full swing band, a 20<sup>th</sup> Century Serialism piece, melody writing, word setting, SATB tasks and a National Anthem. They perform two solos and two ensemble pieces during the year.

Students develop a range of aural and composing skills, sometimes using the software programs Auralia and Musition, and work on melodic and rhythmic dictation, intervals, chord progressions and stylistic analysis. They also use the software program Musition and a comprehensive music website to extend their knowledge of music theory. Students explore and study Western Art Music from the Classical, Romantic and Modern periods as well as contemporary music, including jazz and popular music. Students continue to develop their conducting skills and they have the opportunity to conduct an ensemble such as the Senior Concert Band.

### Feedback and reporting

There are tests and assessments throughout the course and one examination at the end of the year. Students perform on four occasions as soloists and in ensembles. There are also regular composition assignments. Students are encouraged to discuss their progress and results with teachers throughout the year. Extra support and assistance is always available both during and outside class time.

### Homework

Approximately one hour per week as well as time spent practising as a singer/instrumentalist. Students are encouraged to access Auralia and Musition Cloud at home to continue developing their aural skills.

## NEUROSCIENCE AND MOLECULAR BIOLOGY

The Neuroscience and Molecular Biology course has been designed to ignite students' passions for science through studying cutting edge developments in the fields of neuroscience, biotechnology and nanotechnology.

As part of the neuroscience unit, students will learn about the nervous system and compete in the Brain Bee Challenge. This is a worldwide competition which has been designed to inspire students to pursue careers in Neuroscience. Throughout the biotechnology unit, students will use advanced techniques to insert a glowing gene plasmid into bacteria and work with gel electrophoresis to determine the DNA fingerprint for this gene. The nanotechnology unit will continue the investigation into new science through examining the properties of nanoparticles and newly developed nanomaterials.

### Feedback and reporting

Class work, research, assignments, debates, tests and practical work.

### Homework

Approximately half an hour per week.

## PHILOSOPHY

In Philosophy and Ethics students study Critical Reasoning and Personhood. In Critical Reasoning students are introduced to the basic tools and techniques of Philosophy, which included the essential structure of an argument, different types of reasoning and validity and soundness. In Personhood, students explore and debate the philosophical concepts relating to defining persons and develop evaluative and critical thinking skills by reflecting on ethical questions. Through this unit students are encouraged to advance their own views by mapping and constructing arguments.

### Feedback and reporting

Students are assessed on their ability to write an extended argument, to respond analytically to a passage and to participate in a Community of Inquiry. The three areas of assessment demonstrate how well the student can formulate a cogent argument, critically evaluate an argument and take part in reasoned philosophical discussion. Feedback is provided in the classroom and in writing for all assessments.

### Homework

Approximately one hour per week.

## PHOTOGRAPHY DESIGN

### Photography Design (four period option)

Students explore visual communication design through understanding and applying composition principles and developing their technical skills in photography. They explore the commercial and creative contexts of photography to achieve audience specific images.

Tasks allow students to develop their visual communication skills through photography. Students develop skills to understand and interpret designs, and to competently develop, plan and produce functionally effective photography based artefacts for the world of today and for the future. Artefacts may be two and/or three-dimensional.

Students develop skills and understanding of photographic techniques and processes. Students work with various techniques and aspects of photography including lighting, composition, depth of field, shutter speed control, editing and printing. Photography preproduction skills such as studio staging, stage make up and props are explored. Multimedia skills selected from scanning, stop motion animation, manipulation of images in Adobe Photoshop and Illustrator and the various outputs for digital images including print and multimedia presentations are explored developed. Visits to galleries and exhibitions and participation in workshops enhance the course. Students display their completed work in the Annual Student Art Exhibition.

### Feedback and Assessment

Students complete practical projects and written tasks that address the two assessment outcomes: Photography Production and Photography Response. Students present their work in a portfolio. They receive formal feedback using marking keys.

### Prerequisites

A genuine interest in photography and design, and evidence of ability from previous photography courses.

### Homework

Students complete class work as required. Approximately one hour per week.

## Photography Design (two period option)

This course allows students to develop their photography practices. It covers a similar program to the four period option with more emphasis given to the creative possibilities of photography and extending the knowledge and experience gained in Year 9.

The focus is on practical, aesthetic and analytical skills development. Practical skills cover and extend the fundamentals of the camera, composition, lighting and effects using digital media. Students develop their understanding of photography as a design discipline through constructing photographic images and responding to styles and genres, with a focus on contemporary photographers' practice. They will develop an understanding of photographers in society by investigating professional exhibitions and analysing images. Students participate in the Annual Student Art Exhibition, excursions and workshops.

### Feedback and Reporting

Students complete practical projects and written tasks. Assessment is based on the completion of set tasks presented in a photo journal. Finished photography works are displayed and completed projects are assessed using a feedback sheet which assesses the outcomes: Production and Response

### Homework

Students complete class work as required, approximately 30 minutes per week.

## PHYSICAL AND HEALTH EDUCATION

### Physical Education

The Physical Education course aims to provide opportunities for each student to continue to work towards her full movement potential through participation in a range of physical activities, and for her to obtain enjoyment and satisfaction through movement.

During the year, students have the opportunity to improve their individual skills and game strategies in swimming, badminton, strength and conditioning and various team sports. Students are encouraged to develop and maintain personal fitness during the year and learn how to develop a strength and conditioning program.

Cocurricular activities are offered at a social, Interhouse and/or Interschool level in swimming, cross country, athletics, rowing, tennis, volleyball, hockey, netball, basketball, soccer, softball and water polo.

### Health Education

In Health Education, students learn about mental health, managing risk, sexual health, gender identity, respectful relationships, drug education and road safety.

### Feedback and reporting

In Physical Education, students receive feedback on their performance in areas such as skill technique, gameplay, participation and attitude. Girls are assessed based on the three sub-strands: Moving our Body, Understanding Movement and Learning Through Movement. Fitness testing is conducted twice yearly for assessment and to allow students to monitor their fitness levels.

Health Education assessments cover the three sub-strands: Being Healthy, Safe and Active, Communicating and Interacting for Health and Wellbeing and Contributing to Healthy and Active Communities. Continuous feedback is given on tests, worksheets, class activities and discussions.

### Homework

Completing worksheets, assignments and preparation for assessments.

## PHYSICAL EDUCATION STUDIES

The course provides students with an introduction to Sports Science. The practical component involves skill development, game strategies and fitness in various team sport contexts. The theoretical component focuses on functional anatomy, exercise physiology, motor learning and coaching, biomechanics, sports psychology and sporting injuries.

Feedback and reporting

Assessment consists of class work, research assignments, practical activities and class tests.

Homework

Approximately three hours per week completing class work and assignments.

## RELIGIOUS AND PHILOSOPHICAL STUDIES (RAPS)

In Semester one, students investigate Islam. They examine Qur'anic teachings and critically compare them to public perceptions and stereotypes, revealing the challenges of daily life for Muslims. Students then explore the meaning and purpose of the Islamic pilgrimage to Mecca, the Hajj and reflect on the importance of this experience to a modern Muslim teenager.

In Semester two continuing with world faiths, they consider the concept of a good life in the light of Buddhist teachings. Students analyse religious and non religious beliefs about death and the afterlife, and explore how such beliefs may give life meaning and develop an ethical mind set.

## SCIENCE

The Year 10 Science program develops knowledge and understandings of scientific concepts, science process skills and positive scientific attitudes. Discrete units of Biology, Chemistry and Physics are studied which also include components of Earth and Space Sciences. The units provide a strong foundation for later studies in Science. Students are placed in classes on the basis of their Year 9 results. Alternative Chemistry and Physics units may be available for students who do not wish to pursue these courses in Years 11 and 12.

The five week duration units include for Semester 1: Biology 1, Physics 1, Chemistry 1, Forensic Science (alternative) and Food Chemistry (alternative). For Semester 2 they include: Biology 2, Lifestyle Chemistry (alternative), Chemistry 2, Sports Science (alternative), and Physics 2.

Individual unit booklets are supplied by the School.

### **Differentiating classes in Year 10 Science**

Science concepts become significantly more abstract as students' progress through school and we consider that it is increasingly important to cater for the wider range of abilities. Our aim is for each student to experience success and to enjoy learning science, no matter what their ability.

The cohort is generally divided into six classes depending on the number of students. Group 6, which is typically a smaller class, is created to provide more tailored support. This class studies an alternative program in Physics and Chemistry.

With the other students studying the same mainstream program, we create a smaller class of students who require more tailored support and at the other end of the spectrum create a larger class of more able students. This differentiation is based on the ranking of students' results from Year 9. Results are again examined at the end of Semester 1 and some students move to different classes.

If students who are initially selected for the alternative program wish to study Chemistry and/or Physics during Years 11 and 12, then their requests are considered and students are placed in the appropriate class which studies Chemistry and Physics during Year 10.

If students decide that they do not wish to pursue Chemistry and Physics for Years 11 and 12, and they are in the mainstream program, the opportunity is provided to move to the alternative program at the completion of Semester 1. This course leads to Biology, Human Biology, Psychology and General Marine and Maritime Studies (not Physics and Chemistry) for the Western Australian Certificate of Education.

With regard to students participating in an exchange program, they are placed in a group that provides them with the best opportunity to cover the units in preparation for their Year 11 studies.

### Feedback and reporting

The units are reported on separately and Semester 1 and Semester 2 grades are determined by averaging the results. The examination addresses the units studied. The purpose of the examination is to encourage students to revise their work and use feedback on earlier work to improve their results. Units are assessed individually using a combination of projects, assignments, practical activities and mid topic tests followed by an end of topic test. Results are reported separately for each of the disciplines.

Feedback on students' progress is provided by assignments, projects, practical activities and/or tests which are conducted approximately midway through the unit and at the completion of the unit.

### Homework

Approximately one hour per week.

## SOFTWARE DEVELOPMENT AND APP DESIGN

This is an exciting and engaging course for students with an interest in designing and writing software to develop their ideas and solve problems. They will learn how to express algorithms in pseudo code and will write programs for use in a variety of operating environments, such as computer application software, websites, apps for mobile devices and robotics.

They will use the Python programming language, as well as HTML, CSS3 and JavaScript for web publishing. Specific projects will include the production of a website for the School Arts Festival, and games such as Hangman and Noughts and Crosses in Python. There will also be an opportunity to apply their coding skills to topics of their own choice.

### Feedback and reporting

Students will receive feedback on programs submitted for assessment.

### Homework

Students complete class work.

## VISUAL ARTS

### Visual Arts (four period option)

This is a dynamic and stimulating course which progressively builds skills and competence in art practice. By developing an appreciation of the art world, students acquire skills to produce contemporary art work. The course promotes originality and authenticity in art making.

Art projects are selected from a combination of the following: drawing, painting, sculpture, printmaking, ceramic, digital art, and/or fibre arts. Projects may be of 2-D, 3-D and/or time based forms. The study of art contexts is central to the production of original artworks and this is formalised to improve students' visual awareness, visual literacy and knowledge of art and design theory and history. Students analyse, research, discuss and present their knowledge and understanding of art, artists and the world around them. The course encourages students to develop conceptual and material strength in their own artworks and, over time, develop a personal style.

The course is enriched by visiting artists, exhibitions, workshops and field trips. Students work with a process journal which contains their visual inquiry, design development, media experimentation and art and design appreciation that leads to the production of a body of work. Students participate in the Annual Student Art Exhibition.

#### Feedback and reporting

Assessment is based on completion of a set of tasks in assessment strands: Art Making and Art Responding. Students maintain a process journal and exhibit resolved artworks in the Annual Student Art Exhibition. They receive diagnostic feedback for works in progress and formal feedback when they complete tasks.

#### Prerequisites

A genuine interest in art and evidence of ability from previous art courses.

#### Homework

Students complete class work as required, approximately one and a half hours per week dedicated to out of class assessment tasks.

### Visual Arts (two period option)

This course allows students to stay in touch with Art. It covers a similar program to the Visual Arts option with an emphasis on the exploration and development of practical skills. The study of art and design history and theory is integrated in the practical aspects of the course.

#### Feedback and reporting

Assessment is based on completion of a set of tasks in the assessment strands: Art Making and Art Responding. Students maintain a process journal and exhibit resolved artworks in the Annual Student Art Exhibition. They receive diagnostic feedback for works in progress and formal feedback when they complete tasks.

#### Homework

Students complete class work as required. Approximately one and a half hours per week is dedicated to out of class assessment tasks.

